Chapter 9 – Response to Comments on the ENF

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9. RESPONSE TO COMMENTS ON THE ENF

This section presents comments received on the Environmental Notification Form (EEA No. 15028). Section 9.2 provides the original comment documents (including letters and emails) side-barred with unique identifying codes for each comment. Section 9.3 provides responses to each comment in a table. The responses to comments are organized into the following categories: The Certificate of the Secretary of EEA on the ENF; public officials, agencies, and facilities; and non-governmental organizations, businesses, and individuals.

9.1. Secretary's Certificate on the ENF

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April 19,2013

CERTIFICATE OF **THE** SECRETARY OF ENERGY **AND** ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: South Station Expansion Project
PROJECT MUNICIPALITY	: Boston
PROJECT WATERSHED	: Boston Harbor
EEA NUMBER	: 15028
PROJECT PROPONENT	: Massachusetts Department of Transportation
DATE NOTICED IN MONITOR	; March 20, 2013

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-621) and Section 11,03 of the MEPA Regulations (301 CMR 11.00), I hereby determine that this project requires the preparation of a mandatory Draft Environmental Impact Report (DEIR).

As described in the ENF, the project consists of an expansion of Boston's South Station by the Massachusetts Department of Transportation **(MassDOT).** The project is being undertaken to allow for expansion of intercity and **high-speed** rail (HSR) service Into South Station and to improve existing rail operations and service delivery at South Station provided by the **National** Railroad Passenger Corporation (Amtrak) and the Massachusetts Bay Transportation Authority **(MB** FA). According to MassDOT, the importance of an expanded South Station has been extensively **documented** in **State** and **regional** transportation plans including **MassDOT's** *Massachusetts State Rail Plan* (2010) and *Massachusetts Freight Plan* (2010); the Boston Region Metropolitan Planning Organization's (MPO) *Paths to a Sustainable Region,* the long-range transportation plan for the metropolitan Boston region (2011); and the MBTA's *Program for Mass Transportation* (2009).

South Station is a critical node in both the Amtrak and MBTA rail systems (it is the sixth busiest station in the national Amtrak system and is Boston's busiest multimodal transit hub). It is the terminus of Amtrak's Northeast Corridor (NEC) service and Lake Shore Limited service from Chicago via Albany; approximately 1.36 million Amtrak passengers used South Station facilities in 2011. It also serves as the terminus for the western and southern lines of the MBTA's commuter rail system and provides connections to the MBTA's Red Line, Silver Line and local bus routes. In 2012, there were approximately 80,600 weekday inbound and outbound MBTA south side commuter rail boardings (including South Station and Back Bay station). South Station's bus terminal is also a hub for intercity, regional and local bus service with over 16,000 daily bus terminal passengers and nearly 28,000 additional weekday subway and bus transit passengers.

According to the ENF, the project is part of an overall plan to improve intercity and future HSR service in the NEC, as stated in Amtrak's *NEC Master Plan,* its *Vision for High Speed Rail in the Northeast Corridor*, and its 2012 update. Projections in the ENF indicate that HSR ridership on the Acela Express will be nine times higher by 2040 (increasing from 3.2 million riders to 29.7 million riders) and that ridership on MBTA commuter rail lines will grow by at least 28 percent by 2030. Amtrak's 2030 plans call for increased service between Boston and New York City and additional trains to operate over an "inland route" connecting Boston, Worcester, Springfield and New Haven. South Station presently operates with a total of thirteen tracks, all of which are fully utilized by Amtrak and the MBTA resulting in increasing congestion and declining service reliability.[1] Furthermore, presently there is insufficient vehicle layover space to meet existing and future South Station operational requirements. Amtrak and the MBTA currently store trains in the South Station terminal while waiting for slots at the existing south side layover yards. The project includes five primary elements:

- Expansion of the South Station terminal facilities by adding up to seven tracks and platforms, construction of an approximately 215,000 square foot (sf) passenger concourse, and reconstruction of the Cove, Broadway, and Tower 1 Interlockings at the terminal approach;
- Acquisition and demolition of the U.S. Postal Service (USPS) General Mail Facility located on Dorchester Avenue to provide a 16-acre site upon which to expand South Station and restore Dorchester Avenue for public and station access;
- Creation of an extension of the Harborwalk along a reopened Dorchester Avenue that will include pedestrian, bicycle, local transit, and vehicular improvements;
- Creation of possible future joint/private development adjacent to and/or over an expanded South Station;
- Construction of additional rail layover space to address existing and future Amtrak and MBTA service expansions and other planned improvements. Layover facilities are used to store, service, inspect, and maintain trains when they are not in service.

The approximately 49-acre South Station project site is bounded by Summer Street to the north, Dorchester Avenue and the Fort Point Channel to the east, Atlantic Avenue to the west,

[1] South Station currently has less than half the original track capacity that was available when the station was first opened in 1899.

and the MBTA's Cabot Yard to the south. The South Station project site also extends along a portion of the NEC Main Line to the west past the Cove Interlocking and along the MBTA's **Fairmount/OId** Colony Railroad Line to the south just past the Broadway **Interlocking.** South Station is located **ai** the junction of several Boston neighborhoods including **Chinatown,** the Leather District, **the** Fort Point **Channel,** and the **Seaport-Innovation** District/South Boston Waterfront.

The project also **includes** the construction **of** layover **facilities** at one or more sites within the greater Boston area. After completion of a layover facility alternative analysis that evaluated 28 potential locations, throe sites for new and/or expanded layover facilities were further considered as part of ENF. These potential layover locations include:

* The Boston Transportation Department (BTD)-owned Tow Lot located along Frontage Road approximately one track-mile from South Station;
* Beacon Yard Park, a **freight** yard and intermodal terminal most recently used by CSX Transportation, Inc. (CSX) located along **Cambridge** Street in the AUston section of Boston, approximately four track-miles on the MBTA Framingham/Worcester Line from South Station; and
* Readville Yard *2,* an existing MBTA layover yard and maintenance facility located off Wolcott Court in the Hyde Park section of Boston, approximately nine track-miles from South Station.

MEPA Procedural History

The ENF was **noticed in the March 20, 2013 Environmental Monitor, commencing the** 20-day comment period. On April 1, 2013, a public MEPA Scoping Session was held at One South Station in compliance with 301 CMR 11.06(2). Portions of the project site have previously been subject to MEPA review as far back as 1973. As indicated in the ENF, projects previously filed on the South Station site include:

* **EEA No. 243 - South Station Urban Renewal Project;**
* **EEA No. 2868 - South Station Project;**
* **EEA No. 3173 - Temporary' South Station Bus Terminal;**
* **« EEA No. 3205 - South Station Project;**
* EEA No. 4049 - Tunnel Ventilation Program Phase 1 ;
* EEA No. 4327 - South Station Wye Connector;
* EEA No. 3205/9131 - South Station Air Rights Project: and
* EEA No. **10270 - North/South Rail Link Project.**

Of these prior filings, only three projects required the preparation of an EIR. The South Station Air Rights Project (EEA Nos. 3205 and 9131) consists of a 1,765 million square foot **mixed-use development located on the northern end of the site** above **existing portions of South** Station headhouse and tracks. The project also includes a 70.000-sf horizontal 1 y expanded bus terminal, pedestrian connections from the train station concourse and **platforms** te die expanded **bus terminal, and a** 775-space **three-level parking garage located above the bus terminal. The EIR complied with M.G.L. Chapter 30 and the Proponent recently filed a Notice of Project**

Change (NPC) for an extension of time. The North/South Rail Link Project consists of a three-mile tunnel linking North and South Stations and associated rail infrastructure. The DEIR for this project was determined to adequately and properly comply with the MEPA Regulations in July 2003. A Final EIR has not been filed for this project. I have received numerous comments requesting that the scope of the South Station Expansion Project improvements include underground rail tracks and platforms for the North/South Rail Link Project. I cannot mandate the specific components of a project being forwarded by any proponent, public or private, as part of the MEPA review process.

Jurisdiction and Permitting

This project is subject to MEPA review and requires the preparation of a mandatory EIR because it requires State Agency Actions and exceeds several MEPA review thresholds including:

- Provided a Chapter 91 (c. 91) License is required, expansion of an existing non-water-dependent structure, provided the use or structure occupies one or more acres of (historic) tidelands;
- New discharge or expansion in discharge to a sewer system of 100,000 or more GPD (301 CMR 11.03(5)(b)(4(a));
- Generation of 3,000 or more unadjusted new additional daily trips on roadways providing access to a single location (301 CMR 11.03(6)(a)(6)); and
- Construction of 1,000 or more new parking spaces at a single location (301 CMR 11.03(6)(a)(7)).

The project requires several permits from the Massachusetts Department of Environmental Protection (MassDEP) including, but not limited to: a c.91 Waterways License and a Sewer Connection Permit (BRP WP 74). The project also requires an Amendment to the Fort Point Channel Downtown Waterfront Municipal Harbor Plan and a Public Benefit Determination issued by the Executive Office of Energy and Environmental Affairs (EEA), a Vehicular Access Permit from MassDOT, air-rights easements or approvals from the MBTA and State Register Review (950 CMR 71.00) and Section 106 Review (36 CFR 800) by the Massachusetts Historical Commission (MHC). An Order of Conditions will be required from the Boston Conservation Commission, or in the case of an appeal, a Superseding Order of Conditions from MassDEP. The project may also require an 8(m) permit from the Massachusetts Water Resources Authority (MWRA) for potential work at Beacon Park Yard. The project requires several federal permits/approvals including, but not limited to: approval under the National Environmental Policy Act (NEPA), Part 77 Airspace Review from the Federal Aviation Administration (FAA), Modification of High Occupancy Vehicle Designation review by the Federal Highway Administration (FHWA), Section 4(f) Review by the United States Department of Transportation (USDOT) and a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the United States Environmental Protection Agency (USEPA), The project is subject to the MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol.

The project will receive **Financial** Assistance in the form of a funding from the Commonwealth and the Federal Railroad Administration (FRA). Therefore, MEPA jurisdiction is bread in **scope** and extends to all aspects of the project that may cause Damage to the Environment, as defined in the MEPA regulations.

Review of the ENF

The **ENF** submitted by **MassDOT** included a completed form, a project description, required plans and **maps,** the ENF distribution list, and the **layover** Report. The ENF focused primarily on outlining the potential alternatives to be explored further as part of the DEIR process, **consistency** with local, regional and State policy and transportation plans, and potential impacts to wetland resource areas including filled tidelands. MassDOT acknowledged the need for significant amounts of additional environmental study in a variety of areas including transportation, air **quality,** noise and vibration, tidelands and wetlands impacts, historic resources, solid and hazardous waste, and GHG **emissions.**

Alternatives Analysis - South Station Terminal

As indicated in the ENF, MassDOT has yet to identity a preferred project alternative for either the South Station site or layover facilities; however, the ENF included schematic drawings **and** a general description of several alternatives for each scenario. For the South Station terminal four alternatives were identified:

- **No Build Alternative - This alternative is the future baseline against** which **all the** other project alternatives will be compared. This alternative assumes that the South Station complex, including the headhouse, track operations and the USPS General Mail Facility' will **all** remain in their current condition. Dorchester Avenue would remain predominantly in private use by the USPS. This alternative also assumes the **construction of** the **South Station Air** Rights Project **(EEA Nos. 3205/9131).**
- **Alternative 1 - Transportation Improvements Only** - This alternative includes the **previously approved South Station Air Rights Project and an expansion of South** Station onto the adjacent USPS property. The USPS Genera! **Mail** Facility would be **demolished to make way for a 215,000-sf expansion of the existing 69,000-sf transit** concourse and **1**26,000 sf of **office** space, for a total terminal size of **41**0,000 sf. Up to seven new tracks and platforms will be constructed along wiih the **extension** of some existing platforms to create a total of 20 tracks, Additionally, the Cove, Broadway **and Tower 1 Interlockings at the terminal approach will be reconstructed. Dorchester Avenue would be restored for public and station access, reconnecting it to Summer Street as a public way with landscaping and improved pedestrian and cycling connections (sidewalks, crosswalks, and** bike **lanes). This restoration would** also include construction of a long-awaited extension of the Harborwalk along a reopened Dorchester Avenue. The project would be constructed in accordance with c,91 standards for non-water-dependent infrastructure facilities **and** City of Boston zoning **requirements. This alternative** also **includes the construction of additional layover** facilities at one or more sites.

- **Alternative 2 - Joint/Private Development Minimum Build** — This alternative includes all the components from Alternative 1, plus provisions for future joint/private development of up to 850,000-sf of mixed-use space consisting of office, retail, residential and hotel uses, with building heights up to approximately 12 stories and up to 470 parking spaces. This alternative would be constructed in accordance with existing State and local regulations including existing c.91 regulations, the Fort Point Downtown Municipal Harbor Planning Area (the Municipal Harbor Plan (MHP)) requirements and the Massachusetts Coastal Zone Management (CZM) Program. This alternative also includes the construction of additional layover facilities at one or more sites.
- **Alternative 3 - Joint/Private Development Maximum Build** - This alternative includes all of the components from Alternative 1, plus provisions for future joint/private development of approximately 2.5 million sf of mixed-use development consisting of office, retail, residential and hotel uses, with building heights up to 26 stories and approximately 1,370 parking spaces. This alternative would be limited by the Federal Aviation Administration's (FAA's) maximum building height limits, pursuant to the Terminal Instrument Procedures (TERPS) regulations applicable to Boston Logan International Airport. These restrictions would limit building heights to approximately 290 feet and require an amendment to the Municipal Harbor Plan, modifying applicable c.91 regulations. This alternative also includes the construction of additional layover facilities at one or more sites.

Alternatives Analysis - Layover Facilities

The ENF also included a discussion of potential layover facility site alternatives. The ENF described layover facility needs and summarized the formal *Layover Facility Alternatives Report* (the Layover Report) prepared by MassDOT in March 2013. A complete copy of the Layover Report was included in an appendix to the ENF. As noted previously, current layover facility capacity deficiencies has led to sub-optimal operations and will likely not meet the needs of proposed future ridership on Amtrak and the MBTA. The Layover Report described existing conditions, including an inventory of the four existing Amtrak and MBTA layover areas and types of activities conducted at each. These existing facilities include:

- Amtrak's Southampton Street Yard - owned and operated by Amtrak, this 16-track facility is located north of Southampton Street, between the MBTA's Old Colony Main Line and the Dorchester Branch. This facility is the primary train storage and layover facility for Amtrak in Boston and the MBTA has an agreement with Amtrak to store train consists[2] here during daylight hours.
- Amtrak's Front Yard - owned by Amtrak, this five-track facility is located east of the Widett Circle Access Road and north of the Dorchester Branch between the Southampton Street Yard and the wet/dry loop tracks for the Amtrak train wash building. This yard is currently used for layover of MBTA commuter train consists on three of the tracks, while the remaining two tracks are used for Amtrak storage of on-track, non-revenue equipment and maintenance-of-way materials.

[2] A consist is a railroad term used to describe die physical makeup of a combination of locomotives and coaches coupled together and operating as one unit.

* **MBTA's** South Side Service and Inspection Facility - **owned** Mid operated by the MBTA, this facility consists of 57,000-sf of space in four buildings, including a two-track maintenance facility **and** two outdoor tracks used for locomotive fueling and servicing. The facility is located adjacent to Widett Circle, between South Station and Southampton Street Yard,
- MBTA's Readville Yard 2 owned and operated by the MBTA, this 12-track lac il it y includes a maintenance building and is the **largest** layover yard used by the MBTA for their south **side service.** The facility is located in the Hyde Park section of Boston adjacent to the MBTA Dorchester Branch,

The ENF summarized existing layover requirements for Amtrak during the midday and overnight Amtrak's layover requirements include eight consists during the midday period and 13 consists overnight. According to the ENF, all of Amtrak's current layover needs Me accommodated at Southampton Street Yard. The MBTA currently requires 38 consists to support its daily South Station commuter rail **operations** during a typical weekday. Of **these** 38 consiste, 28 **are** in layover **status during a typical** midday **period. The existing consists capacity** at Southampton Street Yard (8), Front Yard (3), South Side (4) and Readville Yard 2(10), leaves the MBTA with a midday shortfall of three consists. This results in restrictive scheduling of revenue and non-revenue trains in and out of South Station as well as the **storage** of trains by Amtrak and MBTA at the South Station Terminal while waiting for slots at the existing south side layover facilities,

The Layover Report **summarized** a series of **assumptions** that informed layover demand forecasts for Amtrak and the MBTA in the years 2025 and 2040. These assumptions include the **usage of existing layover facilities, increased ridership demand,** planned **service increases in both** frequency and routes, modifications to fleet vehicle mix (such as increased train length, bi-level coaches, and improved HSR service). The Layover Report concluded that in the year 2025 Amtrak will continue to be able to meet its overnight layover demands within its existing layover **facilities. Specific details of Amtrak's 2040 layover needs and service and inspection requirements (including track length and support facilities) are** not **yet known, but it is assumed that Amtrak will need layover space beyond what** Is **currently available, The Layover Report concluded** that **in the year 2025 the MBTA, with** an **increased** fleet **of 58 consists using South** Station, the layover demand will increase to **43** consiste. In 2025, **it** was assumed that layover capacity will increase to 37 consists, due to the use of a four-track layover yard on an MBTA easement at Beacon Yard, leaving the MBT A with a **projected** deficit of six layover slots. Layover **capacity will be reduced** to **30 consist spaces by 2040** due **to an assumed increase in** train consist length (requiring a minimum clear-track **length** of 760 feet apiece), precluding storage at the Front Yard facility and reducing capacity at Southhampton Street Yard. Combined **with a projected increase in the number of consists to support MBTA sendee (66) and increased midday layover demand (49), the MBTA** will **have a predicted shortfall of 19 layover slots in** 2040. As noted in the ENF, with anticipated increased service demands for both Amtrak and the MBTA, the lack of layover capacity will become a major constraint and limit the planned growth in rail service at South Station,

The Layover Report included a description of how potential layover sites **were identified and a description of each alternative site. A total of 28 alternative sites** were **initially identified**

based upon site criteria established by MassDOT deemed necessary to adequately support railroad operations at South Station. These criteria include: direct or nearly direct access to an existing rail line, adjacent uses compatible with the characteristics of a layover facility, avoiding adjacency with residences, if possible, site size and configuration suitable for the storage of eight car plus one locomotive consists, and proximity to South Station, favoring locations closer to South Station over those farther away. MassDOT then completed a two-tier screening assessment that included further analysis and conceptual design. The first tier screening process was used to identify "fatal flaws" based upon three key criteria including site suitability, railroad operations, and site access. At the conclusion of the first tier of screening, 18 of the 28 potential sites were eliminated from further review. The second tier screening process included the preparation of a conceptual plan for each location and a more detailed comparison of candidate sites based on factors such as: consistency with zoning, distance from South Station, site topography, environmental impacts, layover yard and main line operations, and capital improvement requirements. The Layover Report described how each remaining potential layover facility site met or conflicted with the evaluation criteria and recommended various alternatives for dismissal or continued consideration.

As noted previously, MassDOT proposed three potential layover facilities for further consideration and examination as part of the DEIR. The Beacon Park Yard conceptual layover design would provide tracks parallel to the MBTA Framingham/Worcester Line to store up to 30 consists. Expansion at this site would require a renegotiation of MassDOT's option agreement with Harvard University on a 132-foot wide area immediately north of the existing MBTA easement area at Beacon Park Yard to establish rights not conveyed as part of the current option. The BTD Tow Lot conceptual layover design would provide tracks capable of storing up to 10 consists, but would require acquisition of three full parcels and a portion of an additional parcel from the City of Boston and an easement from Amtrak. The BTD Tow Lot site would require a rail connection to be made to the MBTA's Dorchester Branch, but given its close distance to South Station impacts to the Main Line would be reduced compared to other potential layover sites. Finally, a conceptual layover facility expansion at Readville Yard 2 would create a total storage capacity for up to 18 consists with rail access via the existing yard lead connection to the MBTA Dorchester Branch at Dana Interlocking. Travel distance to South Station is the longest (8.8 miles) of the three potential layover sites proposed for further evaluation.

Notably, the Layover Report concluded that no single remaining layover facility alternative has the physical space to fulfill the entire projected 2040 layover need. The Layover Report also determined that layover of too many trainsets approaching South Station from one location could cause conflicting railroad operations and create a bottleneck. As outlined in the scope below, MassDOT will be required to evaluate a combination of the three recommended sites to assess how they can be integrated with the existing four layover sites serving South Station.

Potential environmental impacts associated with the South Station terminal project were presented as a "worst-case" scenario (e.g., Alternative 3, the Joint/Private Development Maximum Build alternative) in the ENF. A maximum build out development would increase building square footage on-site from 1,660,000 sf to 2,975,000 sf, an increase of 1,315,000 sf. Impervious areas would remain the same at 46.5 acres of the 49-acre project site. The project

would add a total of 750 housing units and increase the maximum building height by 185 feet to a 290-foot maximum. Average vehicle trips per day are predicted to increase from 5,400 trips to 9,900 trips; a creation of 4,500 new vehicle trips per day. The project would also add 1,128 new parking spaces for a site total of 1,593 parking spaces. Wastewater generation and water use would each increase by 567,000 gallons per day (gpd) for a project total of 598,000 gpd each. The South Station site **includes** the South Station **Headhouse** and Waiting Room, both of which **are** listed in the State and National **Registers** of Historic Places.

The ENF also included a description of potential environmental impacts associated with the conceptual plans prepared for the three proposed layover facilities. This included an estimate of land alteration (either additional or removal of buildings, internal roadways, parking/paved areas, or other altered areas), wetland resource area impacts (i.e., the types of resources that may be impacted either permanently or temporarily with no areas/volumes provided), and regulatory status in accordance with the **Massachusetts** Contingency Plan **(MCP; 310** CMR **40,0000).**

A portion of Ac South Station terminal site is located within the Fort Point Downtown Waterfront Municipal Harbor Planning Area, for which Phase 1 and Phase *2* MHPs have been approved (March 8, 2004), These MHPs establish the planning area boundaries and outline planning principles for the Fort Point Downtown Waterfront Municipal Harbor Planning Area. The South Station terminal site contains **filled** former tidelands that are subject to c.91 under the authority of numerous historic licenses (310 CMR **9.00). Approximately** 47 acres of **the** 49-acre project site include jurisdictional filled or flowed tidelands. The **proposed project includes four acres dedicated to water-dependent uses, while the remaining 43 acres** will **be occupied by non-water-dependent uses. The ENF** included **a summary of these existing licenses,** their date of issuance {between 1897 and **1997),** and the scope of work authorized. The **BTD** Tow Lot and Beacon Park Yard **layover** sites each contain filled tidelands, but according to the ENF, the tidelands are geographically isolated from existing flowed tideland and meet the statutory definition of landlocked tidelands.

The ENF identified project components that are listed either on the State or National Registers of Historic Places or the Inventory **of Historic and Archaeological Assets of** due Commonwealth. **The South Station site** includes **the South Station Head House (BOS.1517) which is listed in the State and National Registers of Historic Places (the Registers). The South Station site is** located **adjacent to the Leather District Historic District (BOS.ÀP) and the Fort** Point Channel Historic District (BOS.CX), also listed in the Registers, The USPS General Mail **Facility/South Postal Annex is included in the Inventory of Historic and Archaeological Assets** of the Commonwealth (the Inventory). The BTD Tow **Lot,** Beacon Park Yard and Readville Yard 2 potential layover sites do not contain historic buildings or structures **listed** in the **Registers or** Inventory. The EN F included a list of historic resources **listed** on the Registers or **Inventory within the vicinity of South Station** or **the three proposed layover facility locations.**

SCOPE

General

The DEIR should follow **Section** 1L07 of the MEPA **regulations** for outline and content, as modified by this scope. C-01.1

Project Description and Permitting

The DEIR should include a detailed description of the proposed project and describe any changes to the project since the filing of the ENF. The DEIR should include updated site plans for existing and post-development conditions for each potential project alternative at a legible scale. For the South Station terminal site, these conceptual plans should clearly identify vehicle access points, pedestrian corridors and access points, wetland resource areas and c.91 jurisdictional limite, foe type and location of vehicle and bicycle parking (including shared bicycle infrastructure), and stormwater, wastewater and water supply infrastructure. The DEIR should describe how the proposed development scenarios and expanded station operations will te integrated into the existing South Station building and platforms, including connections to other modes of transit (e.g., private and MBTA buses, Red Line and Silver Line) and Main Une commuter rail operations. For the potential layover facilities, these conceptual plans should clearly identify proposed track placement, the types of support buildings or structures **proposed,** adjacent land uses, existing on-site infrastructure (i.e., existing rail-yard operations, etc.) storm water management infrastructure, and vehicle access points. The DEIR should identify the types of signal, track {new sidings or double tracking to increase capacity) or interlocking upgrades proposed as part of the project and include their location on the **project's** site **plans.** C-01.2 C-01.3 C-01.4 C-01.5

The DEIR should include a discussion of future permitting requirements associated with the project, identifying permitting requirements **specific** to each **identified** development **scenario and layover** facility location. Additionally, while this project **is not subject to the** EEA **Environmental Justice** (EJ) **Policy, MassDOT has committed** to **evaluate the project for potential impacts to EJ communities based on federal and State guidelines. The effects of the project alternatives on EJ populations** will be **evaluated relative to their overall effects to determine** whether impacts **in the No Build and Build conditions will be disproportionate or adverse on EJ** communities or populations. C-01.6 C-01.7

Alternatives Analysis

The ENF **noted that MassDOT has not currently identified a preferred alternative for the** project. The DEIR should include art expanded **alternative analysis** (hat builds off the preliminary data presented in the ENF and provide **additional** description and data outlining foe potential environmental impacts associated with each **development** scenario and layover facility. C-01.8

Specifically, the DEIR should provide an alternatives analysis that provides conceptual site layout plans, a summary of potential environmental impacts associated with each of these alternatives, preferably in tabular format, and a supporting narrative for each of the following alternatives for the South Station Site:

* A No Build Alternative;
* Alternative **1 - Transportation** Improvements **Only;** C-01.8
* Alternative 2 — Joint/Private Development Minimum Build; and
* Alternative 3 - Joint/Private Development Maximum Build,

The DEIR should also include an alternative analysis **that evaluates the** following potential layover facility" locations (providing refined conceptual plans, a summary" of potential environmental **impacts** and a supporting **narrative** identify ing the **types** of **activities** to be conducted on-site): **C-01.9**

* BTD Tow Lot;
* Beacon Park Yard;
* Readville Yard 2; and
* **Widett Circle**

This layover facility alternatives analysis should consider how each potential facility will operate and meet expected operational needs either individually or in conjunction with other proposed facilities once integrated into the larger rail system (Amtrak, MBTA, freight) that connects to South Station. The **DEIR** should specifically address how the location and **operations** at any of **the** potential layover facility sites will impact Main Line sendees for **Amtrak, the MBTA and** freight services due to necessary train dead-heading and midday storage requirements. The **DEIR should include a phasing plan that addresses sequencing and timing of the potential layover facility sites based on operational need.** **C-01.10**

As part of the DEIR, I encourage MassDOT to consider additional ways to reduce impacts to environmental resources through design modification or the addition of features to further mitigate potential impacts. Additional recommendations provided in fois Certificate may **result in a modified design that enhances the project's ability to avoid, minimize,** or **mitigate Damage to the Environment. The DEIR should discuss steps MassDOT has taken to further** reduce the impacts of the project since the filing of the ENF, or, if certain measures are infeasible, the DEIR should discuss why these measures will not be adopted. **C-01.11**

Land Impacts

The DEIR should include a **description** of how **the South Station terminal site and** the **potential layover facility sites will** alter **existing land uses or require the relocation** of **existing uses.** The **ENF acknowledged that all development alternatives at South Station will require the demolition of the USPS General Mail Facility. The relocation of this facility, if pursued by** the USPS, may be subject to separate MEPA review contingent upon the characteristics **and** location of anew facility. Since the South Station site **is** a predominantly altered area, direct land impacts are anticipated to be limited. However, the **DEIR,** as discussed later in this **scope,** should **describe the project's** potential **impacts to jurisdictional tidelands** and **their associated public** benefit requirements, as well as **expected** public realm improvements along Dorchester Avenue. The DEIR should discuss any potential easements or impacts to Article *97* land that may **encumber** the **proposed project areas within the vicinity of South Station.** **C-01.12** **C-01.13** **C-01.14** C-01.15

More notably, land impacts associated with the proposed layover facilities appear to have the potential to result in more substantial impacts. The DEIR should identify the location of known easements, either existing or required for project completion, and how the terms of these easements may impact project operations and the ability to construct suitable layover facilities. The DEIR should also discuss how each layover alternative will impact existing uses within the site, as applicable. In particular, the DEIR should focus on the potential current and future impacts to the Boston Department of Public Works (DPW) facility in the BTD Tow Lot layover facility alternative, impacts to existing commercial facilities in the Widett Circle layover facility alternative, and vested rights to CSX and Harvard University at the Beacon Park Yard site. MassDOT should work with the Boston DPW and City officials to assess the impacts of using the BTD Tow Lot for layover purposes on Boston DPW operations and supporting uses and present these findings in the DEIR. The DEIR should respond to Harvard University's comments regarding the layover facility analysis presented in the ENF and existing rights afforded to the MBTA, MassDOT, CSX or Harvard University. Additionally, the DEIR should evaluate the use of each layover site with consideration for how they may preclude reasonably anticipated future projects by MassDOT (highway or commuter rail service), anticipated future Amtrak service, projects identified in State and local planning documents, or development rights vested to Harvard University

C-01.16

C-01.17

C-01.18

C-01.19

Wetlands, Waterways and Tidelands

The South Station terminal is located near wetland resource areas regulated under the Massachusetts Wetlands Protection Act (WPA). The DEIR should confirm the presence of either Land Subject to Coastal Storm Flowage (LSCSF) or 100-foot buffer zone to Coastal Bank, characterize these wetland resource areas and estimate potential temporary or permanent impacts associated with construction of each project alternative. A similar assessment should be performed for each potential layover facility location, identifying regulated wetland resource areas and potential impacts. The DEIR should describe how each project element will be designed and constructed in a manner consistent with relevant performance standards established in the WPA Regulations (310 CMR 10.00). The project will require a Federal Consistency Certification because the project will receive funding from the FRA. The DEIR should include an assessment of how the project will be designed and implemented in a manner consistent with CZM policies.

C-01.20

C-01.21

The DEIR should include graphics that overlay key c.91 jurisdictional criteria (e.g., Historic Mean High and Mean Low Water Marks, Ordinary High Water Marks, filled tidelands, landlocked tidelands, etc.) on top of the South Station Terminal and potential layover facility conceptual plans. The DEIR should include information demonstrating how each project alternative will be designed to meet the c.91 licensing criteria for a non-water-dependent (transportation improvements, joint/private development) and water-dependent (Harborwalk extension) uses. The DEIR should include conceptual design plans, graphics and a supporting narrative that details the location of uses within the building on tidelands, facilities dedicated for public use, and proposed building heights for each development and layover alternative. For each of these scenarios the DEIR should also describe how the project will: maintain a capacity for water-dependent uses, meet shoreline utilization requirements, activate Commonwealth

C-01.22

Tidelands for public use, and comply with standards for non - water-d epend ent infrastructure facilities, The DEIR should identify areas on or adjacent to the project site that have existing c,91 Licenses and identify site attributes approved in conjunction with those historic licenses. I strongly **encourage** MassDOT to meet with the MassDEP Waterways program prior to preparing the DEIR to ensure that sufficient information is provided in the **DEIR** to assist MassDEP in providing **meaningful** comments on the project's ability to meet c,91 licensing standards. C-01.22 (cont.) C-01.23

According **to** the **CZM** comment letter, the 2004 Secretary's Decision on Phase 2 of the **M**HP (the Phase 2 Decision) anticipated an **amendment** of the MHP to provide for **track** expansion and additional development at the USPS site. The Phase 2 Decision **included specific** guidance requiring a comprehensive master planning effort for the **area** south of **Summer** Street prior to submitting an **MHP** Amendment. The master **planning** effort and MHP Amendment should draw[r] from the Boston Redevelopment Authority's (BRA) **Watershed Activation** Plan for the Fort Point **Channel area for a list of potential public benefits** for **development projects along** the Fort Point Channel. As noted by CZM, **following** this comprehensive planning process, **an** MHP Amendment that **implements** the planning vision for the area can be submitted to the **Secretary' for** review **according to the procedures outlined in 301 CMR 23.06. MassDOT should** work with the City of Boston and CZM to determine how **to** meet the requirements set forth in **the Phase** 2 **Decision and successfully amend the MHP. I strongly encourage MassDOT to** work collaborative] y with the City of Boston to expedite the commencement of the Phase 2 Decision master planning process. The **DEIR** should report on the status of the master planning **process** required in the Phase 2 Decision, providing details on the plan components, public outreach **efforts or other plan aspects,** as **available. The DEIR should include a summary of historic** master planning efforts and describe the geographic location and terms of the Phase 1 and Phase 2 MHPs for contextual purposes. C-01.24 C-01.25

The DEIR should include the results of the potential impacts to the public realm from **wind and shadow' associated with the proposed development alternatives at the South Station terminal site. As committed to by MassDOT in the ENF, the DEIR should include the results of a** quantitative wind analysis, including wind tunnel testing to assess potential ground-level impacts to the **pedestrian** environment. This analysis should focus on potential wind impacts to new and existing open spaces, including the pedestrian environment around the South Station terminal, **the proposed Harborwalk extension along** the Fort Point **Channel, and other areas of** the **public** malm, The DEIR should also include a shadow impact analysis, performed to meet the **standards** required as part of the c.91 License review process, for each development alternative (including the Transportation Only Improvements). C-01.26 C-01.27

The project is a **critical piece of infrastructure not only for the** City **of Boston and the surrounding region, but is key to the operation of the NEC, As a coastal** city, **the project has an** increased susceptibility to potential damage **associated** with the affects of climate **change,** most notably sea-level rise and flooding Impacts due to increase storm frequency and intensity. The **DEIR should discuss how the proposed project (South Station terminal and potential layover facilities)** will **be designed, constructed and operated to reduce or** avoid the **risk of damage associated with these types of events. MassDOT should assess the potential** impact **of sea** level rise and flooding (within the reasonable life span of the project) on public spaces, water and **wastewater infrastructure, stormwater management, track elevations** and **passenger platforms,** C-01.28 C-01.29

track switching equipment, and other critical project elements. The CZM comment letter includes recommended sea-level rise scenarios that **MassDOT** should use when conducting this assessment and to assist in the selection of appropriate mitigation or adaptation strategies to make the project more flood-resistant or flood-resilient, At a minimum, CZM has recommended that MassDOT evaluate impacts of two feet of **sea** level rise. This assessment may also draw from data included in the Federal Emergency **Management** Agency's (FEMA's) update to tire Suffolk County flood insurance study or available updated data regarding rainfall events. The DEIR should consider climate **change** adaptation strategies presented in the Massachusetts *Climate Change Adaptation Report* (2011), The Boston Harbor Association^ *Preparing for the Rising Tide,* or other publications issued by U.S. EPA or the National Oceanographic and Atmospheric Administration (NOAA). C-01.29 (cont.)

The DEIR should include a discussion of how the project complies with the Public Benefit Determination **(301 CMR 13.00)** criteria established for **non-water-dependent** projects located completely or partially within tidelands or landlocked tidelands. Specifically, the DEIR should include a discussion of: the purpose and effect of the project, **impact** of the project on abutters and the surrounding **community,** enhancement to the property, benefits to the public trust rights in tidelands, benefits **provided** through previously obtained municipal permits, community activities on the South **Station** site, environmental protection and preservation, and public health, safety, and general welfare. At the conclusion of the MEPA process (i.e., in conjunction with a **Final** EIR, or a Supplemental **FEIR if required, I will issue a Public Benefit Determination in compliance** with **the provisions** of An *Act Relative to Licensing Requirements for Certain Tidelands* **(2007 Mass, Acts** ch. **168, see.8).** C-01.30

Stormwater

The DEIR should discuss how development of the South Station terminal **(including** the reopening of Dorchester Avenue) as well as each layover facility' site will be designed in compliance with MassDEP Stormwater Management Regulations and its associated Stormwater Policy, as applicable. The DEIR should include a conceptual discussion of proposed **BMPs** that may be selected in the final design phase. MassDOT should demonstrate in the DEIR that the South Station terminal and potential layover facility conceptual designs include **sufficient** measures capable of conveying and **treating** estimated stormwater flows generated by fire project, **including a discussion of existing stormwater infrastructure, outfall locations, and connections** to infrastructure susceptible to combined sewer overflows (CSOs). The stormwater analysis should evaluate and compare storm-event **peak** flow rates Mid volumes to existing conditions based upon conceptual **designs for South Station and layover facilities. If groundwater recharge is required or proposed, the** DEIR **should demonstrate that sufficient** area **exists on-site to** accommodate necessary recharge **areas.** The DEIR should include a discussion of low impact design (LID) stormwater management techniques to be incorporated at die South Station or **layover facility sites.** C-01.31

The DEIR should identify and describe the location of existing storm drain systems that will receive stormwater flows generated by the project (both South Station terminal and layover sites). The DEIR should describe existing connections of stormwater flows to sanitary or combined sewers that will be removed in conjunction with the project and how flows from these C-01.32

removed **connections** will be redirected to the storm drain system and associated discharge points (Fort Point Channel or otherwise). The DEIR should discuss BMPs to be **implemented** within the proposed parking areas to manage and treat stormwater discharges, C-01.33

Water Supply and Wastewater

The DEIR **should** provide **an** estimate of wastewater generation and water usage, tabulated by use (residential, **commercial,** irrigation, air conditioning make-up) and location. The DEIR should clearly state assumptions used to generate these estimates The DEIR should clarify if the proposed layover facilities will **utilize** water for rail car or equipment **washing** or **for** repair and maintenance activities. The DEIR should confirm the availability of sufficient water and sewer conveyance capacity for each of the project alternatives and identity if new water or sewer mains will be necessary to construct the project's various components. I encourage MassDOT's plans for exterior spares around the expanded South Station and Dorchester Avenue to include provisions for a variety of drought-tolerant **native** species to limit or eliminate project demand for irrigation. **C-01.34** **C-01.35** **C-01.36**

The DEIR should include a description and supporting graphic characterizing the existing **wastewater system associated with** the **South Station terminal and the** potential **layover sites** from the the point of origin to the point of **treatment** and/or discharge. The DEIR should clarify what infrastructure is solely for sanitary purposes and what **infrastructure** conveys **combined** Hows (sanitary and **stormwater).** As noted by the MWRA, particularly in the area near South Station, the configuration and performance of the network of sanitary, combined sewers, and **combined sewer outfalls, including the frequency and volume of CSO discharges at each outfall are the subjects** of **Federal District Court mandates,** NPDES **permits issued to the Boston Water** and Sewer Commission (BWSC) and MWRA, and regulatory performance standards. The DEIR should demonstrate that any proposed changes to the physical configuration, **location,** and/or hydraulic performance of these sewers and outfalls will not affect compliance with Federal Court mandates and regulatory requirements, as well as water quality conditions in Fort Point Channel. **The DEIR must also demonstrate that** the **project** will not **compromise MWRA's or BWSC's** ability to attain required **long-term** levels of CSO control. MassDOT should coordinate with the MWRA and the BSWC to ensure that conceptual **and** final **design** plans are **consistent** with applicable requirements and maximize potential benefits to the wastewater system at large. The **BWSC comment letter indicates that a plan to improve a CSO outfall** pipe **(BOS 065) which runs under** the **USPS building. MassDOT should consider these improvements in** its **design plans and** coordinate with BWSC as necessary to facilitate its construction, **C-01.37** **C-01.38**

MassDOT will be required to offset any increases in project-related wastewater flow with stormwater inflow reduction, infiltration (groundwater) or sewer separation in **hydraulically related sewer systems. The DEIR** should **discuss how the project will comply with MassDEP's Policy on Managing Infiltration and Inflow in MWRA Community Sewer Systems (BRP 09-01)** and with BWSC policy and regulations. **C-01.39**

Traffic and Transportation

The DEIR **should** Include a **Traffic** Impact and Access Study **(TIAS)** prepared in **accordance with EEA/MassDOT Guidelines** for EIR/EIS Traffic Impact Assessments. As noted in the ENF, this HAS will **examine** existing **and** future 2040 No Build and Build alternative transportation conditions, The TIAS should also to include an interim 2025 traffic assessment to align traffic and transportation estimates with those generated by Amtrak: and MBTA as part of their planning **studies forecasting layover requirements and ridership using South Station. The TIAS should use data and methodologies provided through collaborative efforts with the Boston** Transportation Department (BTD) and Central Transportation Planning Staff **(CITS)** to identify study area intersections, **mode-split** data, and data **forecasting.** The TIAS should discuss existing and proposed traffic volumes and conditions, anticipated trip generation rates across all modes (vehicles, pedestrians, transit, etc.), crash rate data, **level-of-serviee** (LOS) operations at signalized and unsignalized intersections, estimated **parking** demand, and proposed access points **and loading operations** for **the South Station site.** C-01.40

The DEIR should describe anticipated modifications to **the existing roadway network,** including **physical modifications to** the **State Highway Layout and South Station Bus Terminal** ramps, to implement each alternative at South **Station** or the potential layover facilities. The **DEIR should include conceptual drawings depicting these required modifications to demonstrate** their feasibility and overall **integration** into the roadway network and any traffic-related **mitigation measures proposed by MassDOT, The DEIR should also identify any proposed modifications to bus terminal access by either private carriers or MBTA buses for each development alternative. The** DEIR **should describe any proposed "kiss-and-ride", shuttle bus,** or taxi stand accommodations mound the **perimeter** of **South** Station and how these areas will be **accessed and designed to avoid conflict with bus operations, pedestrians and bicyclists. Finally, the DEIR should confirm that sufficient location exists** for **expanded Hubway facilities at the South** Station **terminal site under each development scenario,** C-01.41 C-01.42 C-01.43

The DEIR should evaluate and describe how reopening Dorchester Avenue to public access will potentially impact various modes of transit, including private vehicle, truck and bus traffic, pedestrians, and bicycles, The DEIR should describe how a reopened Dorchester Avenue may be **used to reroute MBTA buses to provide more direct bus connections to downtown. Hie DEIR** should **include a refined conceptual plan that depicts the extent and types of proposed** improvements to Dorchester Avenue, **proposed connections** to the Harborwalk, and broader **pedestrian** and **bicycle connections through and around South Station to the adjacent neighborhoods (i.e.. Fort Point** Channel, **Seaport District, South Boston, Chinatown, Leather District, etc.). These connections are critical to enhancing South Station's operations as a multi-modal** transit facility as well as integrating public **improvement** areas into the broader urban fabric of downtown Boston and connections to the **waterfront.** Hie conceptual design for **Dorchester Avenue (or any other street improvements) should comply with the City of Boston's Complete Street Initiative, which requires the incorporation of 'green infrastructure" into street** designs. C-01.44 C-01.45

As noted in several comment letters, expansion of rail services at South Station will lead to increased ridership on other modes of transit service that use South Station. The DEIR should C-01.46

include an analysis of how the predicted increases in rail ridership and changes to operations will impact existing and future capacity on MBTA subway and bus routes. The DEIR should also evaluate how ridership increases will affect station (entrances and exits, escalators, interior waiting areas, etc,) and platform capacities For MBTA operations both within South Station **and** at key stations within the downtown core of the MBTA subway system **(..e.,** Park Street, **Downtown** Crossing, State Street and Government Center). MassDOT should consider the comments received from **WalkBoston** with design recommendations to accommodate increased pedestrian volumes within and around South Station when advancing design plans. The DEIR should discuss the current planning (State and federal) and funding status for the North/South Rad Link project. The DEIR should describe how the proposed South Station Expansion Project will be designed to not preclude future construction of the North/South Rail Link project, C-01.46 (cont.) C-01.47 C-01.48

The **DEIR** should confirm that additional traffic **associated** with potential layover facilities will be negligible in volume. While traffic volumes may be limited, the DEIR should describe how vehicle **access** will be made to each **potential** layover site and if new driveways will be required to facilitate access. C-01.49

I anticipate that MassDOT will be required to enter into a Transportation and Access Plan Agreement (TAPA) with the **City** of Boston which will outline the proposed traffic and transportation mitigation measures associated with the project contingent upon which development scenario is advanced. Furthermore, the project will likely require a Highway Access Permit from MassDOT - Highway Division and therefore **associated** Section 61 Findings will identify additional requirements related to traffic-related project mitigation requirements. The DEIR **should include proposed traffic mitigation measures to offset unavoidable** impacts **associated** with **the project including, but not limited** to, intersection **improvements,** pedestrian and bicycle facilities upgrades, and implementation of a Transportation Demand Management (TDM) program. As recommended by MassDEP, the DEIR should describe all reasonable opportunities for trip reduction and management tailored to the specific needs of employees and patrons with particular emphasis on transit connections and pedestrian and bicycle infrastructure amenities. MassDOT should review' the recommended TDM measures **presented** in the MassDEP comment letter and explain which measures are proposed for adoption in conjunction w ith the project, or If recommendations are **infeasible,** explain their reason for dismissal from **consideration.** C-01.50

The DEIR should provide additional analysis justifying the number of proposed parking **spaces** for each development alternative at South Station. MassDOT must demonstrate in the DEIR that the number of parking spaces have been reduced to the maximum extent practicable based upon estimated demand. The DEIR should **describe** how an effective parking management plan, shared parking, or fee-struetures may be used to achieve this reduction in structured parking. C-01.51

Air Quality

The DEIR should include the résulte of a noise and vibration impact analysis performed in accordance with the Federal Transit Administration (FTA) Guidance Manual for both the South Station site and the proposed layover facility locations. MassDOT will conduct a noise C-01.52

and vibration monitoring program to establish ambient background noise levels within the South Station project area and proposed layover facility locations to develop the project criteria noise limits using FTA guidelines. The DEIR should present the results of the noise and vibration modeling for each design year build alternative and propose abatement measures to mitigate anticipated noise or vibration impacts that may exceed the FTA or other applicable criteria. The project must comply with applicable anti-idling regulations. Additionally, the MBTA should implement noise and operational best management practices (BMPs) equal to or more stringent than those currently utilized at other layover facilities along the commuter rail. The MBTA should ensure that a forum for citizen complaint is implemented as a BMP in the operational plan for any proposed layover facility and at South Station. I expect that the MBTA will provide documentation of these BMPs, and contractual obligations associated with the operator of the railroad in the DEIR. Specific consideration should be given to the hours of operation at each layover facility, potential idling times of locomotives and proximity to sensitive receptors. The DEIR should include a feasibility assessment of potential mitigation measures, a phasing plan for their implementation, and identification of responsible parties for their construction and maintenance. The DEIR should include a discussion of locomotive technologies, including the potential upgrades of either Amtrak or MBTA equipment (including MBTA's bus fleet that operate via South Station) within the project's design year that may provide additional air quality benefits to the region or layover and station facilities on a localized level. This discussion should also include the electrification of rail lines and the use of plug-in facilities at layover yards and the potential air quality benefits thereof.

C-01.52 (cont.)

C-01.53

C-01.54

The DEIR should include an air quality analysis consisting of a regional emissions inventory for criteria pollutants (volatile organic compounds (VOCs), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), and particulate matter ($PMio/PM_{2.5}$). These emissions inventories should include daily and annual emissions from the diesel locomotives and motor vehicles on roadways in the air quality study area for the existing and 2040 No Build, Build, and Build with Mitigation alternatives. Similar to the traffic studies, the air quality study should include an interim year analysis of 2025 to correspond with ridership data. MassDOT should work with MassDEP prior to the preparation of the DEIR to establish the appropriate extent of the study area and modeling methodology. I encourage MassDOT to expand the pollutants analyzed to include air toxics, diesel PM and ultrafine particulates.

C-01.55

C-01.56

C-01.57

The DEIR should also include a localized microscale assessment of CO hotspot, or intersection analysis, using the U.S EPA's CAL3QHC model for South Station Terminal and the four potential layover sites. MassDOT indicates that the South Station project is of "local air quality concern" and will therefore conduct a PM quantitative hotspot analysis as part of the DEIR using the U.S. EPA's December 2010 guidelines to assess emissions from diesel trains and motor vehicles within the study area. The DEIR should discuss measures to limit vehicle idling time in compliance with the Massachusetts Idling regulation (310 CMR 7.11). The DEIR should discuss possible mitigation measures to offset potential air quality impacts pending the results of the air quality analysis.

C-01.58

C-01.59

C-01.60

Greenhouse Gas Emissions

The DEIR should include a GHG analysis prepared in **compliance** with the MEPÀ Greenhouse Gas Policy and Protocol ("the Policy"*). The Policy requires projects to quantify carbon dioxide **(Ctfy)** emissions and identify measures **to** avoid, minimize or mitigate such emissions. The analysis quantifies the direct and indirect CO_2 emissions associated with the project's energy use (stationary sources) and transportation-related emissions {mobile sources). Since MassDOT has not selected a preferred **jo**int/private-bui Id or layo ver facility alternative, the DEIR should assess GHG emissions associated with each alternative to allow for a comparison of potential GHG impacts. The GHG analysis should evaluate CO_2 emissions for two scenarios as required by the Policy including 1) a Base Case and 2) a Build with **Improvements** Condition. In the case **of the joint/private-bui**Id alternatives, the Build with Improvements **alternative** should include energy efficiency design measures in **order** to meet the Stretch Energy Code (Stretch Code), while the Base Case should he consistent with the applicable State Building Code in effect at the time the **ENF was** filed.[3] **MassDOT should meet with staff** from the **MEPÀ office,** the Department of Energy Resources (DOER) Mid MassDEP prior to performing the GHG analysis to confirm modeling assumptions and methodology. C-01.61 C-01.62

The City of Boston has adopted the Stretch Code subsequent to its **designation** as a Green Community under the provisions of the *Green Communities Act of2008.* Therefore, the project will be required to meet the applicable version of the Stretch Code in effect at the time of **construction. The Stretch Code increases the energy efficiency code requirements for** new construction (both residential and commercial) and for major **residential** renovations or additions in municipalities that adopt it. Projects may meet the Stretch Code **requirement** of 20-percent **better** energy efficiency **than the State's base energy code by either meeting** the **standard of** 20-**percent** better than ÂSHRAE 90.1-2007, or by using a prescriptive energy code. The DEIR should demonstrate that the project can be designed to meet the Stretch Code requirements. As applicable, project elements will also be required to be Leadership in Energy' and Environmental **Design (LEED) certifiable in accordance with Article 37 of** the **Boston Zoning Code.** C-01.63 C-01.64

Direct stationary source CO* emissions include those emissions from the facility itself, such as boilers, heaters, and internal combustion engines. Indirect stationary source CQi emissions are **derived** from the consumption of electricity, heat or other cooling from off-slte **sources, such as electrical utility or district heating and cooling systems. Mobile CO_2 emissions** include those emissions associated with vehicle use by employees, vendors, customers and others, and in the case of this project, diesel trains. The Policy requires proponents to use energy modeling software to quantify projected energy usage from stationary sources and energy consumption aid mobile source modeling software to predict **transportation-related** emissions. The DEIR should clearly state the types of modeling software used and emissions factors applied to GHG calculations. C-01.65

The GHG analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which MassDOT plans to avoid, minimize, or mitigate Damage to the Environment to the maximum extent feasible. The DEIR should state C-01.66

[3]1 note that the Massachusetts State Building Code is slated for revision 'm mid-2013. 1 strongly encourage MassDOT to use the updated code when preparing the <5HO analysis.

modeling assumptions and explicitly note which GHG reduction measures have been modeled and **those** that **cannot** be modeled due to the constraints of the modeling **software.** The DEIR should include the modeling printout for each alternative and emission tables that compare Base Case emissions in tons with the Build with Improvements Condition showing the anticipated reduction in tons and percentage by emissions source (direct, indirect and transportation), **The** DEIR should include a cleat and complete listing of modeling inputs (e.g., **R-values, U-values,** efficiencies, lighting power density, etc.) for items such as equipment, **walls,** ceilings, windows, lighting, HVAC units, etc. for both the Base Case and Build with Improvements Condition. The DEIR should describe additional GHG reduction measures expected to **provide** further benefits, but are not currently quantifiable (e.g., building orientation, building commissioning, **use** of an energy management system, Energy Star equipment, and water conservation and wastewater reduction measures, etc.). The DEIR should also identify TDM measures proposed for each of the alternatives **and** the corresponding emission reductions expect®!. Other tables and graphs may also be included to convey the GHG **emissions and potential reductions associated with** various mitigation measures as necessary. C-01.66 (cont.)

The DEIR should use of the United States Energy Information Administration (EIA) **Commercial Buildings Energy Consumption Survey (CBECS) Energy Use Index (EUI) values** as a benchmark for the EUI **resulting** from **modeling both the Base Case and Build with Improvements scenarios. While not required per the GHG Policy, but required as part of Stretch** Code compliance, I encourage MassDOT to **calculate** the EUI and then compare the modeled **building"s EUI to those averages presented in the CBECS. This exercise is** a **helpful tool to** understand the comparative improvements **achieved** for the **proposed** project and identifying **potential modeling errors.** C-01.67

The DEIR **should include a draft Tenant Manual designed to influence future tenants in the mixed-use space to fit-out and operate their spaces with sustainable and energy efficient** designs and operating practices to **reduce** overall **energy** demand and GHG emissions. It remains **unclear** if **the future occupation of die mixed use space will be owner-occupied, leased, or sold to** future tenants for fit-out. However, it is assumed that future developer or tenants **will** require City of Boston building permits for their construction or fit-out, and will be required to comply **with the Stretch Code adopted by the City. MassDOT should identify potential strategies that** could be adopted as part of the jolufe'private development agreement to ensure that the GHG reduction goals modeled as part of the DEIR are met. These strategies may also form the basis **for all** third **party lease agreements associated with the** project. **These strategies may include, but** should not be limited to: identification of the core and shell features **that** are provided **that** allow tenant choices in **energy-related** fit-out (i.e., chilled water distribution capabilities, individual **electric metering, the energy management systems (EMS) and other building features); requiring** or encouraging tenants to adopt appropriate sustainable design, energy efficiency, water use, **water pollution control, and TDM commitments to the extent feasible as part of their respective** lease agreements. C-01.68

The GHG analysis should also include a renewable energy evaluation considering the use of wind power, solar or photovoltaic (PV) panels, geothermal power, or the purchase of green power. The DEIR should include a separate analysis to determine if PV systems (either ground-mounted or building-mounted) to off-set electric demand or for hot water heating purposes are C-01.69 C-01.70

feasible in association with this project. This feasibility analysis should use online DOER and Massachusetts Clean Energy Center (CEO) resources to calculate potential project cost, payback periods and returns on investment, MassDOT should consider both first-party and **third-party** ownership/lease **scenarios.** The **DEIR** should state **assumptions** with **regard** to available area for PV equipment, **efficiencies,** etc, If feasible, I **encourage MassDOT** to commit to the use **of PV** systems at their facilities. At a minimum, buildings should be "solar ready" to facilitate future installation of PV systems. If PV is not **financially feasible, I request that the Proponent commit** to revisit the PV financial **analysis** on a tegular timetable and to implement PV when the financial outcomes meet specified objectives. C-01.70 (cont.)

Because the project will generate in excess of 500,000 gpd of wastewater, the GHG **analysis must assess the GHG emissions associated with the conveyance and treatment of** project-related wastewater. MassDOT should review the GHG **Policy** and data available on the **MEPA webpage for guidance on** how **to complete** this **calculation.** C-01.71

Finally, **I** encourage the Proponent to also consider the qualitative GHG **reduction** benefits that could be gained through commitments to preferred parking for hybrid vehicles and **electric vehicle charging stations. More information on the opportunities associated** with **electric** vehicle infrastructure can be found at the following websites: http://www.afdc. energy.gov/afdoTuels/eleotrici tv. **html** and **http://www.oregon.aov/ODOT/HtVT/OIPP/docs/EVDeployGuidelines3-l.pdf. EEA staff can also provide additional information on the implementation of electric vehicle charging** infrastructure initiatives in **Massachusetts.** C-01.72

The DEIR **should Include an assessment of GHG emissions generated by** mobile **sources** using data gathered as pari of the mesoseale analysis. The DEIR should clearly state modeling assumptions, particularly **regarding diesel** train operations, potential idling times at South Station **or** layover **facilities. For vehicular** traffic, **the DEIR should use traffic volume, delay and speed** data along with emissions factors (as described in the Policy) for a No-Build existing condition, a future (2025 and 2040) Build **condition** and a future (2025 and 2040) Build with Mitigation condition. The DEIR should describe mitigation measures implemented as part of the future Build with Mitigation condition modeling. These measures may include, but should not be limited to, improvements to roadway operations, physical roadway infrastructure upgrades, implementation of a TDM program, railroad operations improvements and use of COi **reduction** technologies. C-01.73

Historic Resources

The DEIR should **include the results of** any **consultations conducted with the** MHC **in accordance with** State Register **Review** (950 CMR **71.00) and Section 106 of the National Historic Preservation** Act **of 1966 (36 CFR** Part **800), While the** ENF **included a summary of historic resources potentially affected by** the **project** the **DEIR should expand this summary** to **identify potential historic or archaeological resources listed on the Registers or Inventory located on the site of, and within the vicinity of, the Widett** Circle **layover facility alternative. The DEIR** should **also identify the Area of Potential** Effect **(APE) for the project for both historic and** archaeological resources Mid identify and **evaluate** historic and archaeological resources therein. C-01.74 C-01.75 C-01.76

Reconnaissance surveys for historic or archaeological resources within each designated APE should he prepared in a manner consistent with that described in the ENF and in consultation with MHC. ç .qi 76 (Cont)

As noted **in** the MHC comment letter, the DEIR should take into account the potential visual, atmospheric, and physical effects (shadow and wind) that the proposed development alternatives may have on surrounding historic properties, The DEIR must also consider the effect of the proposed demolition of the USPS General Mail Facility mid the potential physical effects of **construction-related vibration** and methodology on the South Station Head **House.** Studies should also be performed to evaluate the potential effects of the proposed layover facilities alternatives on **nearby** historic properties. C-01.77 ç_01 78. C-01.89

Impacts associated with the project may be unavoidable, MassDOT should work with MHC and interested parties, such as the Boston Landmarks Commission, to develop appropriate mitigation measures to minimize or mitigate impacts to historic resources. The DEIR should include **possible** mitigation measures to be considered as part of the State Register and Section 106 Review processes, This may include the preparation of a Memorandum of Agreement (MOA) between affected parties. C-01.80

Hazardous Materials

According to the ENF, MassDOT **has** initiated a Phase 1 Environmental Site **Assessment** (ESA) to identify any recognized environmental conditions associated with the South Station terminal, the USPS **General Mail Facility and the alternative layover sites. The project will likely require reviews relative to the MCP given the historic uses within the project area. T he** DEIR should summarize the results of the Phase Î ESA; and include all the alternative layover **sites identified in this scope** as **part of the assessment. Based upon the results of the Phase I ESA,** the DEIR should **identify** any MCP-regulated environmental conditions and list recommendations for further evaluation or testing to be conducted as part of a future Phase II ESA (if warranted). The DEIR should discuss how MCP-regulated conditions may impact **construction techniques** (i.e., **dewatering,** foundation **types, etc,) or potential** site **infrastructure** (e.g., groundwater and storm water management). The DEIR should identify any State permits related to solid and hazardous waste mitigation at both the South Station and alternative layover facility locations. ç_01 81 . C-01.82 C-01.83

Construction Period

The project must comply with MassDEP's Solid Waste and Air **Pollution** Control regulations, pursuant to M.G.L. e,4th §54. MassDOT should consult the MassDEP comment letter with regard to regulatory requirements and potential mitigation measures to be implemented during the construction period. Specifically, the MassDEP comment letter has provided **significant** information with regard to solid waste management **during** the construction period, recycling of construction and demolition (C&D) waste, asbestos removal requirements, and handling of asphalt, brick and concrete (ABC) **associated** with demolition activities. The **ENF indicated that MassDOT will incorporate recycling initiatives within demolition plans for** the USPS General Mail Facility. The DEIR should include a discussion ofMassDOFs C-01.84 q_q^ 85

recycling goals for solid waste generated as part of Ore projects **construction** and how demolition **actitivies** will comply with the goals of the Massachusetts Solid Waste Master Plan. This information may be included as part of a larger draft Construction Waste **Management** Plan for the project. C-01.85 (cont.)

The DEIR should also **describe potential project** site construction period impacts (including but not limited to traffic **management,** materials management, parking, air quality and noise impacts, and other items as they related to the **construction** period) and analyze and outline feasible measures that can be implemented to eliminate or minimize these impacts. The DEIR should include a draft Construction **Management Plan** (CMP) to demonstrate how construction period impacts will be mitigated. Specifically, the **DEIR** should identify truck traffic routes associated with construction traffic, staging areas, and how safe **pedestrian,** bicycle and vehicle **access to South Station will be maintained throughout the construction** period **for** each **proposed project** phase. **Depending upon the results of** the **HAS, the project may require work at** a **number** of off-site intersections and roadways to mitigate project-related traffic impacts, 'fhe DEIR **should present a conceptual plan with a list of BMPs that could be selected by project contractors** to reduce construction related environmental impacts for these roadway improvement projects. These BMPs should focus on erosion and sedimentation controls, staging areas, traffic management, and air/noise pollution. The DEIR should also discuss potential construction-period dewatering activities mid related permitting requirements. C-01.86

I encourage MassDOT to continue to develop staging and construction period access plans in collaboration with the City of Boston, Amtrak, the MBTA and other landowners as required. The DEIR should also describe how Amtrak, MBTA commuter rail and light rail, bus, and freight service will be modified and accommodated during project **construction** (on a per phase basis) for both the South Station Site and construction of selected layover facilities, as applicable. C-01.87

The CMP should include **appropriate erosion and sedimentation control BMPs. These** erosion and sedimentation controls should be implemented and **maintained** in accordance with the Stormwater Pollution Prevention Plan prepared in **accordance** with the NPDES **Construction** General Permit requirements. MassDOT is advised that, if sources oil and/or hazardous material **(OHM) are identified during the implementation of the project, notification pursuant to** the **MCP (310 CMR 40.0000) must be made to MassDEP, if necessary.** C-01.88

In accordance with MassDOT[1] s GreenDOT Policy Directive, contractors are required to install emission control devices on all off-road vehicles in an effort to reduce emissions of volatile organic compounds (VOCs), carbon **monoxide** (CO) and **particulate** matter (PM) from diesel-powered **equipment. Off-road vehicles are required to use ultra-low** sulfur **diesel fuel** (ULS **D). I** also **encourage MassDOT to implement the use of recycled materials in pavement** in **accordance** with **MassDOT[1] s Sustainable** Design **and Construction Best Practices,** C-01.89 C-01.90

Mitigation

The ENF did not include draft Section 61 Findings for each **anticipated State Agency Action. The DEIR should include a separate chapter summarizing proposed mitigation** C-01.91

measures. This **chapter** should also include draft Section 61 Findings for each permit to be issued by State Agencies. The DEIR should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the **parties** responsible for implementation, and a schedule for implementation. The DEIR should clearly indicate which mitigation measures will be **constructed** or implemented **based upon** project phasing, either tying mitigation commitments to overall project square **footage/phase** or environmental impact thresholds, to ensure that measures are in place to **mitigate** the anticipated impact associated with each development phase. C-01.91 (cont.)

In order to ensure that all GHG emissions reduction measures adopted by MassDOT in the Build with Improvements Condition are actually constructed or performed by the MassDOT or **third-party** developers, **I** require proponents to provide a **self-certification** to the MEPA Office indicating that all of the required mitigation **measures, or their equivalent, have been completed.** Specifically, I wilt require, as a condition of a **Certificate** approving an FE1R (or Supplemental FE1R if necessary), that following completion of construction for each project phase, MassDOT **(or a third-party** developer) **provide** a **certification to the MEPA Office signed by an appropriate** professional (e.g., engineer, architect, transportation planner, general contractor) indicating that the all of the mitigation **measures** proposed in the FEÏR have been incorporated into the project. Alternatively, MassDOT or a third-party developer may certify that equivalent emissions reduction measures that collectively are designed to reduce GHG emissions by the same percentage as the measures outlined in the FEIR, based on the same modeling assumptions, have been adopted. The certification should be supported by plans that clearly illustrate where GHG mitigation measures have been incorporated. For those measures that are **operational** in nature (i.e. TDM, recycling) MassDOT or the third-party developer should provide an updated plan identifying the measures, the schedule for implementation and how progress towards achieving the measures will be obtained. The commitment to provide this self-certifieation in the manner outlined above should be incorporated into the draft Section 61 Findings included in the DEIR. C-01.92

Responses to Comments/Circulation

The DEIR should contain a copy of this Certificate and a copy of each comment letter **received, In order to ensure that the issues raised by commentera are addressed, the DEIR should include** direct responses to comments to the extent that they are within MEPA jurisdiction. This **directive** is not **intended** to, and shall not be construed to. enlarge the scope of the DEIR beyond what has been expressly identified in this certificate. C-01.93

The Proponent should circulate **the** DEIR to **those parties who commented on the ENF, to** any **State Agencies** from **which the Proponent will seek permits or approvals, and to any** parties **specified in section 11.16 of the MEPA regulations, A copy of the DEIR should be provided to** DOER. Â copy of the DEIR should be made **available** for review at the nearest neighborhood **branches** of the Boston Public Library. C-01.94

April 19,2013
Date

Richard K. Sullivan Jr.

Comments received:

03/22/2013 Nathaniel Curtis
04/01/2013 Stephen H. Kaiser
04/01/2013 James RePass
04/01/2013 Robert J. La Tremouïlte
04/01/2013 **John** A. **Businger (with attachments)**
04/04/2013 Jay Demasi
04/04/2013 A Better City
04/04/2013 Ellen Altman
04/04/2013 Boston Redevelopment **Authority,** Boston **Transportation** Department, and Boston **Energy and Environment Department** (joint **letter)**
04/05/2013 **Massachusetts Office of Coastal Zone Management**
04/05/2013 Frank DeMasi
04/08/2013 **Joel Weber II**
04/0S/2013 **Brad** Bellows
04/08/2013 Boston Department of Public Works
04/08/2013 **Representative Elaine** C, **O'Brien, Connecticut 61st Assembly District**
04/09/2013 **City of Cambridge**
04/09/2013 **Seaport Transportation Management Association**
04/09/2013 **Massachusetts Division of Marine Fisheries**
04/09/2013 Sierra Club
04/09/2013 **Association for Public Transportation**
04/09/2013 **Massachusetts Department of Environmental Protection - NERO**
04/09/2013 **Massachusetts** Bus Association
04/09/2013 **Massachusetts Historical Commission**
04/09/2013 Wig Zamore
04/09/2013 **Massachusetts Water Resources Authority**
04/09/2013 WalkBoston
04/09/2013 Boston Water and Sewer Commission
04/09/2013 **The Boston Harbor Association**
04/09/2013 Harvard University
04/09/2013 **495/MetroWest Partnership**
04/09/2013 Stephen R Kaiser (2ml letter)
04/11/2013 Representative Frank L Smizik. Massachusetts 15th Norfolk District

RKS/HSJ/hsj

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9.2. ENF Comment Letters

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The Commonwealth of Massachusetts
HOUSE OF REPRESENTATIVES
STATE HOUSE, BOSTON 02133-1054

FRANK I. SMIZIK
15th NORFOLK DISTRICT
ROOM 274, STATE HOUSE

Tel. (617) 722-2676
E-Mail : Frank.Smizik®MAhouse.gov

CHAIRMAN
House Committee on:
Global Warming and Climate Change

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
MEPA Office, Holly Johnson, Analyst
100 Cambridge Street
Suite 900
Boston MA 02114

Attention: Holly Johnson, MEPA Analyst
EEA# 15028

Dear Ms. Johnson,

I am submitting these comments on the South Station Expansion project in order to express my concerns about the failure to include the North South Rail Link (NSRL) track connection between North Station and South Station in state plans.

As you know, riders are currently required to leave their passenger train when they reach Boston from the north or south, instead of being able to go straight through on the same train in the direction they are headed. An investment in rail infrastructure that connects the two stations is vital. This would increase ridership on Amtrak and promote economic growth along the Northeast corridor. Additionally, as former Governor Michael S Dukakis has stated, the NSRL project would take sixty thousand cars off the road every day. Reducing automobile usage would help lower the dangerous greenhouse gas levels presently being emitted by automobile traffic in the Boston area.

New plans for station improvements have not included any rail tracks for the North South Rail Link. Both North and South Station are dose to or above capacity. The South Station proposal, which has undergone a planning study, will cost in excess of $200 million dollars. However, some of the current problems would be solved if the NSRL were constructed and all of our passenger rail systems were integrated and streamlined.

In a letter signed by 21 House and Senate members, including myself, we identified that North and South Station require extensive renovations. I absolutely support these plans, but it must include the NSRL. (see attached Exhibit 1) In recent years there has been growth in ridership of the Downeaster service into Boston from New Hampshire and Maine. There is also increased traffic from Boston to New York and other points south. It is clear that connecting the North and South Station will enhance growth while lessening automobile traffic. The NSRL is also critical to the development of high speed rail in the Northeast corridor.

Innovation and forward vision should include looking north to Maine and eventually to Montreal. Providing increased service throughout the Northeast corridor is a sensible economic and environmental strategy that will serve the Boston area well. P-01.1 (cont.)

There has been some opposition by people who simply don't support rail. For several years they have inflated the estimates of the cost of the NSRL. The South Station study does not use any hard facts to back up the decision not to include the NSRL, but instead relies on arguments made by opponents. That is not the way to make a decision. Any reasonable initial cost will more than pay for itself through increased economic activity.

Evidence of the support of the NSRL includes a September 13, 2012 letter written by then U.S Senator John Kerry. [Attached as exhibit 2}. He stated:

> "The NSRL will improve efficiency and affordability for local commuters and regional passengers. By offering a viable alternative to traveling by car, it will also have a positive impact on the environment."

A month later five Massachusetts Congressmen also support the NSRL. In a letter [attached as Exhibit 3), they wrote:

> "There is certainly a local benefits to connecting North and South stations. Currently commuters traveling between North and South Stations must disembark their train and then either take a Taxi, make light rail connections or walk from one station to the other. Given Boston's geography making this journey through congested downtown city streets take much longer than one would expect. The situation is far from ideal and ought to be addressed."

Similar letters were sent at this time by Martin Meehan, Chancellor of Umass Lowell [See Attached Exhibit 4); Patrick Moscaritolo of the Greater Boston Convention and Visitors Bureau [see attached Exhibit 5); and Braintree Mayor Joseph C. Sullivan [see attached Exhibit 6).

Many leaders support this proposal. We believe Massachusetts officials must begin to put the NSRL in their present and future plans, with the goal of having the Federal Government help provide funding. This project is vital to our economy and our environment. P-01.2

Thank you for your consideration.

Frank I. Smizik

Chairman Frank I. Smizik
Chair, Committee on Climate Change
15th Norfolk District

State of Connecticut
HOUSE OF REPRESENTATIVES
STATE CAPITOL
HARTFORD, CONNECTICUT 06106-1591

REPRESENTATIVE ELAINE C. O'BRIEN
SIXTY-FIRST ASSEMBLY DISTRICT

LEGISLATIVE OFFICE BUILDING
ROOM 4010
HARTFORD, CT 06106-1591

CAPITOL: 660-240-0585
TOLL FREE: 1-S00-842-8267
FAX: 860-240-0206
E-MAIL: Elaine.Obrien@cga.ci gov

ASSISTANT MAJORITY WHIP

VICE CHAIRMAN
APPROPRIATIONS COMMITTEE

MEMBER
COMMERCE COMMITTEE
TRANSPORTATION COMMITTEE

April 8, 2013

Secretary Richard K Sullivan Jr.
Executive Office of Energy and Environmental Affairs
100 Cambridge Street #900
Boston, MA 02114

Dear EEA Secretary Sullivan,

I am pleased to note in the document that the commonwealth of Massachusetts supports Inland route service to New York, via Worcester, Springfield, Hartford, and New Haven. As a member of the Transportation Committee for the State of Connecticut I support the inland route service and would like to see 8 trips per day as soon as possible. This would allow Connecticut riders to enjoy significantly improved intercity service, and provide a shot in the arm for the economies of Worcester, Springfield, Hartford, and New Haven. p 02.1

Currently Amtrak runs 6 trips a day from New Haven to Springfield, but there is only 1 trip per day from Springfield to Boston, thereby making it impossible for commuters to utilize the line. The recent acquisition by the Commonwealth of trackage rights from CSX, and the relocation by CSX of their freight yard out of Boston to Worcester will allow for the development of an adequate multi track service in the Western rail corridor approaching Boston, replacing the single track constraint which has frustrated inland Route advocates for decades. p. -02.2

This is the chance to get it right. For that reason it is alarming to see proposals to consider constraining the western rail corridor with inefficient mid day storage of commuter equipment which could clog the corridor and constrain the development of a multi rail West Station to facilitate intercity service not only to South Station, which I support, but also to North Station, with tire possibility of continuing service on the popular Downeaster service to New Hampshire and Maine, This, along with passenger rail service up the Connecticut River corridor to Vermont, would facilitate significant progress in achieving intercity passenger rail service connecting all of the New England states to the New York City economy. p_ 02.3

I support the proposal to expand South Station, but it must be recognized that it will take a long time to achieve, and when complete, will quickly fill with new Intercity passenger rail service ftom the growing Shore route, and growing commuter rail services in Southeastern Massachusetts.

To provide adequately for the needs of Central and Western Massachusetts and Connecticut, it is essential that the CSX Allston rail yard be replaced with a multitrack New West Station to provide service from the west to North Station as well as South Station. P-02.4

I urge FRA, AMTRACK, and MASSDOT to provide adequate service in the near future for Central and Western Massachusetts citizens by providing a West station, and locate any needed mid day storage for South Station Commuter Rail in the more efficient locations identified in the ENF located closer to South Station and not encumbering the improvement of western corridor services. P-02.5

Sincerely,

Elaine O'Brien

Elaine O'Brien
State Representative, 61s' District
Legislative Office Building, Room 4010
300 Capitol Avenue Hartford, CT 06106
Phone: (860) 240-8500

Commonwealth of Massachusetts

Division of Marine Fisheries
251 Causeway Street, Suite 400
Boston, Massachusetts 02114
(617)626-1520
fax (617)626-1509

Paul J. Diodati
Director

DevaT Patrick
Governor
Timothy P. Murray
Ll Governor
Richard K. Sullivan, Jr.
Secretary
Mary B. Griffin
Commissioner

April 9,2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs (EEA)
Attn: Holly Johnson,
100 Cambridge Street, Suite 900
Boston MA 02114

Re: EEA# 15028 South Station Expansion Project ENF

Dear Secretary Sullivan,

MarineFisheries has reviewed the above mentioned project with regard to its impacts to marine fisheries resources and habitats.

South Station and the post office building are adjacent to the Fort Point Channel The Fort Point Channel _ is considered habitat for larval settlement and juvenile development of winter flounder *(Pseudopleuronectes americanus)* and may serve as refuge for migrating diadromous fish.

P-03.1

To our knowledge the proposed project will not include any work in the waterway, therefore we have no resource concerns with the proposed project at this time.

Thank you for considering our comments. Please call Tay Evans if you have any questions about this review at 978-282-0308 x. 168 or tay.evans@state.ma.us.

Sincerely,

Paul J Diodati

Paul J. Diodati

PD/te

Cc:
R. Lehan (DFG)
K. Ford (DMF)
T. Evans (DMF)
M. Rousseau (DMF)
R. Titmuss (Bourne Consulting)
K. Glenn (CZM)
E. Reiner (EPA)

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 2058 Lowell Street, Wilmington MA 01887 • 978-684-3200

DEVAL L PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

April 9, 2013

Richard K. Sullivan Jr., Secretary
Executive Office of ,
Energy & Environmental Affairs
100 Cambridge Street
Boston MA, 02114

RE: Boston
South Station Expansion Project
Summer Street and Atlantic Avenue
EEA# 15028

Attn: MEPA Unit

Dear Secretary Sullivan:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed the Environmental Notification Form (ENF) submitted by the Massachusetts Department of Transportation for the expansion of Boston's South Station on 49 acres, including the U.S. Postal Service facility in Boston to facilitate the expansion of intercity and high speed rail service (EEA #15028). The project includes the addition of up to seven tracks and platforms with a new, 215,000 square foot (sf) passenger concourse and amenities. Larger rail layover space will be needed to accommodate this expansion. Three alternative layover sites at the BTD Tow Lot Site, the Beacon Park Yard, and Readville — Yard 2 are considered as part of this project. In addition, there is a potential for development on adjacent land as well as above the expanded South Station facilities. This project is categorically included for the preparation of an environmental impact report, MassDEP provides the following comments.

Wastewater

The ENF states that there is sufficient capacity in the existing collection system to accommodate the estimated 567,000 gallons per day (gpd) of new wastewater flow, which will increase the wastewater discharge to 598,000 gpd from the project site. Since new flows from the site will be greater than 50,000 gpd, a sewer extension/connection permit will be required for the project. Additional information on the sewer extension and connection regulations is available on the MassDEP website: http://www.mass.gov/dep/service/regulations/314cmr07.pdf. Flows from the entire project must be included in the MassDEP Sewer Connection Permit Application. Wastewater generated by the project will discharge into the City of Boston's sewer system and ultimately flow to the MWRA's Deer Island Wastewater Treatment Facility. B-04.

MassDEP collaborates with MWRA and its member communities, (including Boston), in implementing a flow control program in the MWRA regional wastewater system to remove extraneous clean water, which is referred to as infiltration/inflow (I/I) from the sewer system. Proponents adding significant new wastewater flow participate in the. I/I reduction effort to ensure that the additional wastewater flows from their projects are offset by the removal of I/I. In accordance with the provisions of the MassDEP policy on I/I mitigation requirements in MWRA communities (available at http://www.mass.gov/dep/water/laws/mwraii09.pdD. I/I mitigation is a required element of a MassDEP sewer connection permit for projects which generate greater than 15,000 gallons per day of wastewater flow where a project exceeds any MEPA threshold for an EIR or if the project has a significant risk of creating conditions leading to a sanitary sewer overflow. Given the scope and impacts of the proposed proj ect, and the need for I/I mitigation, the proponent should arrange to meet with MassDEP and the City of Boston to develop a plan to meet the mitigation requirements of the MassDEP I/I Policy. P-04.2 P-04.3

The ENF has not considered a contribution to the Boston Water and Sewer Commission Sewer Separation program, as there is no information on I/I removal projects within the project's wastewater service area.

Chapter 91- Waterways Program

The ENF correctly identifies jurisdictional and landlocked tidelands within the project areas, and presents an outline of Chapter 91 permitting scenarios related to three schematic development alternatives at South Station. While the ENF is generally accurate in describing these scenarios, the permittability of any of the alternatives will ultimately be determined based on the specific uses, layout, design, and public benefits associated with a concrete proposal. Alternative 1, involving only transportation infrastructure-related improvements, is the most straightforward alternative with respect to permitting requirements. As a Nonwater-dependent Infrastructure Facility, Alternative 1 would be subject to the specific standards applicable to infrastructure projects, at 310 CMR'9.55 rather than the setbacks, site coverage, height, and use restrictions applicable to other nonwater-dependent use projects. Alternatives 2 and 3 are likely to involve more complicated permitting issues that are difficult to comment upon without more detailed development proposals. For example, while a Chapter 91-compliant alternative, such as Alternative 2, may be theoretically possible, it also is possible that a development of that scale ultimately requires an amendment of the Fort Point Channel Municipal Harbor Plan because site constraints caused by the infrastructure component preclude a feasible development project that meets all regulatory requirements. MassDEP looks forward to working with MassDOT as the infrastructure improvements and other development at South Station continue to take shape. P-04.4 P-04.5

Greenhouse Gas Emissions

The Massachusetts Clean Energy and Climate Plan 2020 estimates that MEPA project reviews will contribute by reducing approximately 100,000 Metric Tons of $C0_2$ equivalent by 2020. Therefore, MassDEP encourages the proponent to fully consider renewable energy and promising energy efficiency measures in the EIR. Once considered, commitments should be made to adopt as many of the technically feasible and cost-effect energy efficient designs and equipment as possible. The US Department of Energy, Energy Efficiency and Renewable Energy (EERE) website estimates that a whole building approach to designing energy systems would achieve energy savings of about 30 percent beyond those obtainable by focusing solely on P-04.6

individual building components. The EERE and its partners provide *Advanced Energy Design Guides* for achieving energy savings of about 30 percent over ANSI/ASHRE/IESNA Standard 90.1-1999, In addition, there are design guides for 50 percent energy savings for some building categories (e.g., small-to-medium office buildings, K-12 schools, mid-box retail), which may provide additional guidance on effective energy efficiency measures and designs. P-04.6 (cont.)

The proposed project is subject to the MEPA Greenhouse Gas Emissions Policy and Protocol (Policy) as amended on May 5, 2010. Since an EIR is required, a GHG analysis for the project will need to be prepared to understand the project's energy efficient designs to reduce greenhouse gas emissions consistent with the MEPA Greenhouse Gas Emissions Policy and Protocol. P-04.7

The ENF estimates that this project will require almost 600,000 gallons of water per day and generate a comparable volume of wastewater. Accordingly, since this project would consume more than 300,000 gallons of water per day, the proponent is required to model the GHG emissions associated with water and wastewater treatment. As with other direct and indirect energy sources, the GHG analysis should estimate the reductions achievable with water conservation measures that would be incorporated into the project design. Mitigation measures for water and wastewater beyond the infiltration and inflow (I/I) removal from sewer mains for wastewater permitting also may be considered.

Air Quality — Mobile Source

These comments pertain to the proposed project's mobile source air quality impacts, The ENF estimates that the project will generate 4,500 new vehicle trips per day under the highest range alternative number 3 which exceeds MassDEP's review threshold of 3,000 daily trips for mixed use development requiring an air quality mesoscale analysis of project related emissions. The purpose of the mesoscale analysis is to determine to what extent the proposed project trip generation will increase the amount of volatile organic compounds (VOCs) and nitrogen oxides (NOx) in the project study area. The proposed project also is subject to the MEPA Greenhouse Gas Emissions Policy and Protocol (Policy) as amended on May 5, 2010. The Policy requires the project proponent to quantify project-related carbon dioxide (CO_2) emissions and identify measures to avoid, minimize, and mitigate these emissions. The mesoscale analysis also should be used for this purpose. The analysis must compare the indirect emissions from transportation sources under future No Build, Build, and Build with Mitigation conditions once the Build Alternative is determined in a draft environmental impact report (DEIR). The DEIR should include the results of the mesoscale analysis for VOC, NOx, and CO_2 emissions under these conditions. P-04.8

MassDEP recognizes the project importance in expanding south and south west commuter rail service as well as regional intercity connections for each of the three alternatives under consideration. MassDEP also recognizes the potential trip generation associated with all of the build alternatives contained in the ENF. Accordingly, the DEIR should explore all reasonable opportunities for trip reduction and management tailored to the specific needs of employees and patrons with particular emphasis on transit connections as well as bicycle and pedestrian infrastructure and amenities. Mitigation of project related traffic should be determined P-04.9

through a combination of local and regional roadway improvements,, robust transportation demand management (TDM), and progressive parking management. P-04.9 (cont.)

Recommended Mitigation Measures P-04.10

MassDEP recommends that the DEIR consider the following measures:

- Charge market price for parking spaces used by single occupant vehicle (SOV) drivers. Proponents can charge a fee to those who drive alone, while keeping parking free for bus, transit, carpool or vanpool.
- « Offer parking cash-out incentives to employees whose parking is provided. This strategy encourages employers/tenants to provide employees with an option for compensation for not utilizing dedicated parking spaces, thus encouraging employees to seek alternative modes of transportation such as walking, biking, carpooling, or taking public transit to work,
- Improve proposed bicycle parking by providing both short and long term accommodations as appropriate for project employees and patrons. Bicycle parking should be secure, convenient, weather protected, and sufficient to meet demand.
- Work with Boston officials to support and fund as necessary, off-site, improved bicycle access to the project site, including the use of the most recent MassDOT Design Guidelines or engineering judgment, as appropriate.
- Offer alternative work schedules to employees as well as staggered work shifts, where appropriate, to reduce peak period traffic volumes.
- Provide direct deposit for employees.
- Participate in the EPA SmartWay Transport Program. SmartWay is a voluntary program that increases energy efficiency and reduces greenhouse gas emissions.
- Provide a guaranteed ride home to those employees who regularly commute by transit, bicycle, or vanpool to the site and who have to leave work in the event of a family emergency or leave work late due to unscheduled overtime.
- Establish infrastructure that provides publicly available electric vehicle charging facilities.
- Provide electronic signage displaying shuttle and transit schedule information.
- Hire an employee transportation coordinator to administer the parking management program. A coordinator can act as a point of contact for the various tenants within a given development, help enforce the parking requirements, and carry out any other day-to-day tasks and strategies from the rest of the list above.
- Explore shared parking opportunities to take advantage of the varying parking demand periods of nearby facilities.

Recommended Construction Period Air Quality Mitigation Measures

Diesel emissions contain fine particulates that exacerbate a number of heath conditions, such as asthma and respiratory ailments. MassDEP recommends that the proponent work with its staff to implement construction-period diesel emission mitigation, which could include the installation of after-engine emission controls such as oxidation catalysts or diesel particulate filters, or the use of construction equipment that meet Tier 3 or Tier 4 emission standards for P-04.11

non-road construction equipment. Additional information is available on the MassDEP website: http://www.mass.gov/dep/air/diesel/conretro.pdf. In addition, project contractor(s) are required to use ultra low diesel fuel (ULSD) in their off-road construction equipment in conjunction with after-engine emission controls. P-04.11 (cont.)

Required Mitigation Measures: Compliance with the Massachusetts Idling Regulation

The ENF acknowledges the Massachusetts Idling regulation (310 CMR 7.11) which prohibits motor vehicles from idling-their engines more than five minutes unless the idling is necessary to service the vehicle or to operate engine-assisted power equipment (such as refrigeration units) or other associated power. The DEIR should address how the project will ensure compliance with the regulation, Questions regarding this regulation should be directed to Julie Ross of MassDEP at 617-292-5958. P-04.12

Recycling Issues

The project includes demolition and reconstruction, which will generate a significant amount of construction and demolition (C&D) waste. Although the ENF has not made a commitment to recycling construction debris, MassDEP encourages the project proponent to incorporate C&D recycling activities as a sustainable measure for the project. The proponent also should be aware of that certain materials are restricted from disposal, pursuant to 310 CMR 19,017 and that demolition activities must comply with both Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. Chapter 40, Section 54, which provides: P-04.13 P-04.14

"Every city or town shall require, as a condition of issuing a building permit or license for the demolition, renovation, rehabilitation or other alteration of a building or structure, that the debris resulting from such demolition, renovation, rehabilitation or alteration be disposed of in a properly licensed solid waste disposal facility, as defined by Section one hundred and fifty A of Chapter one hundred and eleven, Any such permit or license shall indicate the location of the facility at which the debris is to be disposed. If for any reason, the debris will not be disposed as indicated, the permittee or licensee shall notify the issuing authority as to the location where the debris will be disposed. The issuing authority shall amend the permit or license to so indicate."

For the purposes of implementing the requirements of M.G.L. Chapter 40, Section 54, MassDEP considers an asphalt, brick, and concrete (ABC) rubble processing or recycling facility, (pursuant to the provisions of Section (3) under 310 CMR 16.05, the Site Assignment regulations for solid waste management facilities), to be conditionally exempt from the site assignment requirements, if the ABC rubble at such facilities is separated from other solid waste materials at the point of generation. In accordance with 310 CMR 16.05(3), ABC can be crushed on-site with a 30-day notification to MassDEP. However, the asphalt is limited to weathered bituminous concrete, (no roofing asphalt), and the brick and concrete must be uncoated or not impregnated with materials such as roofing epoxy. If the brick and concrete are not clean, the material is defined as construction and demolition (C&D) waste and requires either a Beneficial Use Determination (BUD) or a Site Assignment and permit before it can be crushed. P-04.15

Pursuant to the requirements of 310 CMR 7.02 of the Air Pollution Control regulations, if the ABC crushing activities are projected to result in the emission of one ton or more of particulate matter to the ambient air per year, and/or if the crushing equipment employs a diesel oil fired engine with an energy input capacity of three million or more British thermal units per P-04.16

hour for either mechanical or electrical power which will remain on-site for twelve or more months, then a plan application must be submitted to MassDEP for written approval prior to installation and operation of the crushing equipment. P-04.16 (cont.)

In addition, if significant portions of the demolition project contain asbestos, the project proponent is advised that asbestos and asbestos-containing waste material are a special waste as defined in the Solid Waste Management regulations, (310 CMR 19.061). Asbestos removal notification on permit form ANF 001 and building demolition notification on permit form AQ06 must be submitted to MassDEP at least 10 working days prior to initiating work. Except for vinyl asbestos tile (VAT) and asphaltic-asbestos felt and shingles, the disposal of asbestos containing materials within the Commonwealth must be at a facility specifically approved by MassDEP, (310 CMR 19.061). No asbestos containing material including VAT, and/or asphaltic-asbestos felts or shingles may be disposed at a facility operating as a recycling facility, (310 CMR 16.05). The disposal of the asbestos containing materials outside the jurisdictional boundaries of the Commonwealth must comply with all the applicable laws and regulations of the state receiving the material. P-04.17

The demolition activity also must conform to current Massachusetts Air Pollution Control regulations governing nuisance conditions at 310 CMR 7.01, 7.09 and 7.10. As such, the proponent should propose measures to alleviate dust, noise, and odor nuisance conditions, which may occur during the demolition. Again, MassDEP must be notified in writing, at least 10 days in advance of removing any asbestos, and at least 10 days prior to any demolition work. The removal of asbestos from the buildings must adhere to the special safeguards defined in the Air Pollution Control regulations, (310 CMR 7.15 (2)). P-04.18

In addition to paper, glass, plastics, waste oil, and cardboard, MassDEP would appreciate and encourage a commitment to innovative recycling of the waste stream. Facilitating future waste reduction and recycling and integrating recycled materials into the project are necessary to minimize or mitigate the long-term solid waste impacts of this type of development, The Commonwealth's waste diversion strategy is part of an integrated solid waste management plan, contained in The Solid Waste Master Plan that places a priority on source reduction and recycling. Efforts to reduce waste generation and promote recycling have yielded significant environmental and economic benefits to Massachusetts[5] residents, businesses and municipal governments over the last ten years. Waste diversion will become even more important in the future as the key means to conserve the state[5] s declining supply of disposal capacity and stabilize waste disposal costs. P-04.19

In revising the Solid Waste Master Plan, MassDEP is advancing a goal to divert 450,000 tons of food waste from landfills and incinerators by 2020. In the future, large-scale food waste generators will be banned from landfilling or incinerating food waste. As the lead state agencies responsible for helping the Commonwealth achieve its waste diversion goals, MassDEP and EEA have strongly supported voluntary initiatives to institutionalize source reduction and recycling into their operations. Adapting the design, infrastructure, and contractual requirements necessary to incorporate reduction, recycling and recycled products into existing large-scale developments has presented significant challenges to recycling proponents. Integrating those P-04.20

components into developments such as the South Station Expansion project at an early design stage enables effective waste diversion programs. P-04.20 (cont.)

By incorporating recycling and source reduction into the design, the proponent has the opportunity to join a national movement toward sustainable design. Sustainable design was endorsed in 1993 by the American Institute of Architects with the signing of its *Declaration of Interdependence for a Sustainable Future,* The project proponent should be aware there are several organizations that provide additional information and technical assistance, including Recycling Works in Massachusetts, the Chelsea Center for Recycling and Economic Development, and MassRecycle. P-04.21

Massachusetts Contingency Plan/M.G.L. c.21E

Contaminated Soil and Groundwater: The ENT. indicates that there are many contamination sites, but the release tracking numbers are not available. The project proponent is advised that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media must be done under the provisions of MGL c,21E (and, potentially, c,21C) and OSHA. If permits and approvals under these provisions are not obtained beforehand, considerable delays in the project can occur. The project proponent cannot manage contaminated media without prior submittal of appropriate plans to MassDEP, which describe the proposed contaminated soil and groundwater handling and disposal approach, and health and safety precautions. Because contamination at the site is known or suspected, the appropriate tests should be conducted well in advance of the start of construction and professional environmental consulting services should be readily available to provide technical guidance to facilitate any necessary permits. If dewatering activities are to occur at a site with contaminated groundwater, or in proximity to contaminated groundwater where dewatering can draw in the contamination, a plan must be in place to properly manage the groundwater and ensure site conditions are not exacerbated by these activities. Dust and/or vapor monitoring and controls are often necessary for large-scale projects in contaminated areas. The need to conduct real-time air monitoring for contaminated dust and to implement dust suppression must be determined prior to excavation of soils, especially those contaminated with compounds such as metals and PCBs. An evaluation of contaminant concentrations in soil should be completed to determine the concentration of contaminated dust that could pose a risk to health of on-site workers and nearby human receptors. If this dust concentration, or action level, is reached during excavation, dust suppression should be implemented as needed, or earthwork should be halted. P-04.22

Potential Indoor Air Impacts: Parties constructing and/or renovating buildings in contaminated areas should consider whether chemical or petroleum vapors in subsurface soils, and/or groundwater could impact the indoor air quality of the buildings. All relevant site data, such as contaminant concentrations in soil and groundwater, depth to groundwater, and soil gas concentrations should be evaluated to determine the potential for indoor air impacts to existing or proposed building structures. Particular attention should be paid to the vapor intrusion pathway for sites with elevated levels ' of chlorinated volatile organic compounds such as tetrachloroethylene (PCE) and trichloroethylene (TCE). MassDEP has additional information about ■ the vapor intrusion pathway on its website at http ://www. mass. go v/dep/cleanup/laws/vifs. htm. P-04.23

New Structures and Utilities: Construction activities conducted at a disposal site shall not prevent or impede the implementation of likely assessment or remedial response actions at the site, Construction of structures at a contaminated site may be conducted as a Release Abatement Measure if assessment and remedial activities prescribed at 310 CMR 40,0442(3) are completed within and adjacent to the footprint of the proposed structure prior to or concurrent with the construction activities. Excavation of contaminated soils to construct clean utility corridors should be conducted for all new utility installations. P-04.24 **P-04.25**

Construction Period Air Quality Mitigation Measures

MassDEP recommends that the proponent work with its staff to implement construction-period diesel emission mitigation, which could include the installation of after-engine emission controls such as oxidation catalysts or diesel particulate filters. Additional information is available on the MassDEP website: http://www.mass.gov/dep/air/diesel/conretro.pdf, In addition, project contractors) are required to use ultra low diesel fuel (ULSD) in their off-road construction equipment in conjunction with after-engine emission controls.

Air Quality- Stationary Source

Pre-installation approval from MassDEP is required, pursuant to 310 CMR 7.02, if the project will include installation of any boiler sized above the levels contained in 310 CMR 7.26(3 0)-(3 7), inclusive. Natural gas or distillate fuel oil fired boilers with an energy input capacity less than 10,000,000 British thermal units per hour are exempt from, the above listed regulations. In addition, if the project will be equipped with emergency generators equal to or greater than 37 kW, then each of those emission units must comply with the regulatory requirements in 310 CMR 7.26(42). **P-04.26**

The MassDEP appreciates the opportunity to comment on this proposed project. Please contact Kevin.Brander@state.ma.us , at (978) 694- 3236 for further information on the wastewater issues, Jerome.Grafe@state.ma.us, at (617)292-5708 for mobile source air quality, and Alexander.Strysky@.state.ma.us , at (617) 292-5616. If you have any general questions regarding these comments, please contact Nancy.Baker@state.ma.us , MEPA Review Coordinator at (978) 694-3338,

Sincerely,

John D. Viola
Deputy Regional Director

cc: Brona Simon, Massachusetts Historical Commission
Ben Lynch, Jerome Grafe, Alexander Strysky, MassDEP-Boston
Kevin Brander, MassDEP-NERO
John Sullivan, P.E., BWSC
Marianne Connolly, MWRA

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

MEMORANDUM

TO: **Richard K. Sullivan, Secretary, EEA**
ATTN: **FI oily Johnson, MEPA Unit**
FROM: **Bruce Carlisle, Director, CZM**
DATE: **April 5, 2013**
RE: **EEA 15028 - South Station Expansion Project**

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Environmental Notification Form (ENF), noticed in the *Environmental Monitor* dated March 20, 2013 and recommends that the following issues be addressed in a Draft Environmental Impact Report (DEIR).

Project Description

The South Station site consists of approximately 49 acres south of Summer Street along the Fort Point Channel in Downtown Boston. The project consists of the expansion of the South Station facility onto the adjacent United States Postal Service (USPS) site along the Fort Point Channel, and the construction of one or more layover facilities to enhance the multimodal transportation network, better accommodate existing service, and expand service to satisfy projected growth in demand locally and regionally. The project also includes a provision for joint/private development over an expanded South Station. According to the ENF, the Massachusetts Department of Transportation (MassDOT) has not identified a preferred alternative out of the four alternatives identified: No Build; 1) Transportation Improvements Only; 2) Joint/Private Development Minimum Build; and 3) Joint/Private Maximum Build. The Build alternatives vary in the amount of joint/private development provided for above the expanded tracks on the site. Build alternative 1 provides for the expansion of South Station onto the adjacent 16 acre USPS site. The existing building would be demolished, up to seven tracks would be constructed, and the transit concourse would be expanded to include additional passenger support services. This alternative also includes the opening of Dorchester Avenue to public access with vehicular access, bike lanes, sidewalks and an extension of the Harborwalk. Build alternative 2 includes all of the components of alternative 1, as well as the provision for future mixed-use development on the site. The future development would be accommodated by incorporating structural foundations into the station and track design. In this alternative, the future development would be limited to what is allowed by zoning and the Waterways Regulations and is considered the minimum build scenario. Build alternative 3 includes all of the components of alternative 1 as well as the provision for future mixed-use development on the site that will be limited primarily by the Federal Aviation Administration's (FAA) maximum building height of approximately 290 feet. This alternative would exceed what is allowed by the Waterways Regulations and would require an amendment to the City of Boston's Fort Point Downtown Waterfront District Municipal Harbor Plan (MHP). All of the Build alternatives include the construction of additional layover facilities at one or more sites identified: Boston Transportation Department Tow Lot; Beacon Park Yard; and Readville Yard.

Project Comments

CZM is supportive of the proposed expansion project as it will enhance the capacity of the Commonwealth's public transportation system, increase public access to and along the waterfront, and activate the last remaining privatized portion of the Fort Point Channel. P-05.1

As discussed in the ENF, Build alternatives 1 and 2 would meet the requirements of the Waterways Regulations and would not require an amendment to the MHP. However, Build alternative 3 would exceed the amount of development allowed by the Waterways Regulations and would require an amendment to the MHP. P-05.2

The MHP sets up a planning framework for the area along the Fort Point Channel from the Old Northern Avenue Bridge to the Dorchester Avenue Bridge. Phase 1 of the MHP provided site specific substitutions and offsets for the Intercontinental Hotel parcel located at 500 Atlantic Avenue. Phase 2 of the MHP provided site specific substitutions and offsets for the Atlantic Wharf parcel. The 2004 Secretary's Decision on Phase 2 of the MHP anticipated an amendment of the MHP to provide for track expansion and additional development at the USPS site. The Secretary provided guidance regarding the development of an amendment for the planning area south of Summer Street, requiring a comprehensive master planning effort for the area prior to submitting an MHP Amendment.

The Phase 2 Decision provided specific guidance for the master planning effort, requiring such an effort to include a discussion on how new development in the area will accommodate both track expansion and state policy objectives for Commonwealth Tidelands. As detailed in the Phase 2 Decision, the master planning effort should convey the overall vision for the area and address the following:

- **Public access to high-quality waterfront open space along the Fort Point Channel (and not just concentrated at the southerly end).**
- **Pedestrian links to the waterfront from inland open spaces areas.**
- **Preparation of a detailed network plan describing the location and programming of all interior ground-level public space (Facilities of Public Accommodation or "FPAs"). To accurately reflect the significant area of Commonwealth Tidelands, and to ensure year-round public activation of this area, it is expected that at least 25% of the required FPA space would consist of Special Public Destination Facilities.**

Following a comprehensive planning process, an MHP Amendment that implements the planning vision for the area can be submitted to the Secretary for review according to the procedures outlined in 301 CMR 23.06. Development of the MHP Amendment should be guided by the original Notice to Proceed for the MHP. It is anticipated that the master planning process and the MHP Amendment will draw from the City's Fort Point Channel Watershed Activation Plan that was completed in 2002 to provide a menu of public benefits for development projects along the Fort Point Channel.

CZM anticipates that the project will be designed with sea level rise in mind. Presently, p qcj 3 **flooding around the Fort Point Channel is common during storm events and extreme high tides. The DEIR should contain information on how the project will address current levels of flooding along with anticipated increases in flooding and sea level over the project lifetime. The Massachusetts Climate Change Adaptation Report (2011) presents projections of sea level rise over a range of scenarios by 2050 and 2100. The Intergovernmental Panel on Climate Change projections are recognized as too conservative, so the Rahmstorf low (20") and middle emissions scenarios (32") by 2100 are reasonable starting points for adaptation efforts. At a minimum, CZM recommends that the proponent evaluate impacts of two feet of sea level rise.**

Federal Consistency Review

The proposed project may be subject to CZM federal consistency review, and therefore p 4 **must be found to be consistent with CZM's enforceable program policies. For further information on this process, please contact Robert Boeri, Project Review Coordinator, at 617-626-1050, or visit the CZM web site at www.mass.gov/czm.**

-05.

BKC/vg

cc: Valerie Gingrich, CZM
Ben Lynch, DEP Waterways
Richard McGuinness, BRA
Chris Busch, BRA
Stephanie Kruel, Boston Conservation Commission

H 5

The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

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April 9, 2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston MA 02114

ATTN: Holly Johnson, MEPA Unit

RE: South Station Expansion Project, Summer Street & Atlantic Avenue, Boston (Downtown), MA;
MHC# RC.53253, EEA# 15028

Dear Secretary Sullivan:

The Massachusetts Historical Commission (MHC) is in receipt of an Environmental Notification Form (ENF) for the project referenced above.' The staff of the Massachusetts Historical Commission (MHC) has reviewed the information submitted and has the following comments:

This project involves the proposed expansion of terminal facilities at South Station ("SSX project"), including acquisition and demolition of the US Postal Service mail distribution facility located adjacent to South Station at 25 Dorchester Avenue, the proposed extension of the Boston Harborwalk along a reopened Dorchester Avenue, provisions for the potential future public/private redevelopment adjacent to and over an expanded South Station, and a provision for rail vehicle layover areas for both intercity and commuter rail services. The ENF notes that the SSX project, regardless of the alternative ultimately chosen, will involve funding and permitting from the Federal Railroad Administration (FRA) and other federal agencies, including the U.S. Department of Transportation, and is therefore subject tc review under Section 106 of the National Historic Preservation Act (36 CFR 800), Section 4(f) of the Department of Transportation Act (23 CFR 774) and NEPA.

The proposed project site includes the South Station Head House (BOS.1517) which is individually listed on the State and National Registers of Historic Places, and is adjacent to the Leather District Historic District (BOS.AP) and the Fort Point Channel Historic District (BOS.CX), which are also listed in the State and National Registers.

The No Build Alternative included in the ENF would involve no private development or expansion of South Station beyond the previously proposed South Station Air Rights project. Thé South Station Air ; P-06.1

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www.sec.state,ma.us/mhc

Rights project (EEA# 3205/9131; MHC# RC.9138) was previously reviewed by the MHC. After consultation with the MBTA regarding this separate project, the MHC and the MBTA entered into a Memorandum of Agreement (MOA) for that project. The MHC expects that any potential changes to the separate air rights project would be subject to consultation with the MHC under the terms of the existing MOA. P-06.1 (cont.)

The ENF notes that MassDOT has not currently identified a preferred build-out alternative for the SSX project, but that MassDOT will include an alternatives analysis in the Draft EIR. The MHC looks forward to receipt of the DEIR and to the FRA's identification of an Area of Potential Effects (APE), identification and evaluation of historic resources within the APE, and finding of effects for the project alternatives. P-06.2

The Draft EIR and the FRA's identification, evaluation, and findings of effect should take into account the proposed demolition of the USPS General Mail Facility/South Postal Annex, as well as the potential physical effects on the South Station Head House through vibration and construction methods. The Draft EIR and FRA's Section 106 review should also take into account the potential visual, atmospheric, and physical effects (through shadow and wind) that the proposed new construction would have on surrounding historic properties (especially the South Station Head House) as part of the Joint/Private Development Minimum Build alternative and the Joint Private Development Maximum Build alternative. Studies should also be performed for the potential effects of the proposed Layover Facilities alternatives on any nearby historic properties. P-06.3 P-06.4

The MHC expects that continued consultation with MassDOT, the MBTA, and the FRA will include MassDOT's preparation of a reconnaissance level architectural resources survey of the entire project site and architectural APE, as well as a Phase I Archaeological Reconnaissance Survey, as described in Attachment A, page 11 of the ENF. The MHC looks forward to the result of these surveys and continued consultation on this project. P-06.5

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800), M.G.L. Chapter 9, Section 26-27C, (950 CMR 71.00) and MEPA (301 CMR 11). Please do not hesitate to contact Brandee Loughlin of my staff if you have any questions.

Sincerely,

Brona Simon

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

xc: Michelle Fishburae, Federal Railroad Administration
Mary Beth Mello, Federal Transit Adminstration
Katherine Fichter, MassDOT
Andrew Brennan, MBTA
Boston Landmarks Commission
Boston Preservation Alliance

MASSACHUSETTS Water Resources Authority

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

Telephone: (617) 242-6000
Fax: (617) 788-4899
TTY: (617) 788-4971

April 9, 2013

Mr. Richard Sullivan, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
Attn: MEPA Office, Holly Johnson
Boston, MA 02114

Subject: EOEEA #15028 Environmental Notification Form,
South Station Expansion Project
Boston, MA

Dear Secretary Sullivan:

The Massachusetts Water Resources Authority (MWRA) appreciates the opportunity to comment on the Environmental Notification Form (ENF) for the proposed South Station Expansion (SSX) Project (Project) submitted by the Massachusetts Department of Transportation (MassDOT). The SSX project includes the expansion of the South Station terminal facilities, acquisitions and demolition of the US Postal Service and distribution facility located adjacent to South Station on Dorchester Avenue; extension of the Boston Harborwalk along a pre-opened Dorchester Avenue; provision for the opportunity for future public/private developments adjacent to and over an expanded South Station; and, provisions for adequate rail vehicle layover for both intercity and commuter rail services.

The South Station project site occupies approximately 49 acres near Chinatown, the Fort Point Channel, and the Seaport-Innovation District/South Boston Waterfront. The primary purpose for the SSX project is to improve the Amtrak's Northeast Corridor (NEC) passenger rail service delivery into and out of Boston so as to accommodate the existing services and enable projected growth in high-speed rail (HSR) service and other intercity passenger rail service throughout the Northeast. The SSX project is part of an overall plan to improve intercity and future high-speed passenger rail service in the NEC stated in the Amtrak's Master Plan, in its Vision for High Speed Rail in the Northeast Corridor.

MWRA's comments focus specifically on issues related to wastewater flows and the need to attain required long-term levels of combined sewer overflow (CSO) control in the Fort Point Channel, discharge permitting within the Toxic Reduction and Control (TRAC) Department and 8 (m) permitting from the Wastewater Operations Department.

Wastewater and Storm'water

The Project area is served by separate sanitary sewers and storm drains owned and operated by the Boston Water and Sewer Commission (BWSC). All stormwater flows collected within the Project area must be directed to storm drain systems or a combined sewer outfall for discharge to Fort Point Channel and not to any sanitary sewer or combined sewer tributary to MWRA's wastewater system. MassDOT should include the identification and removal of any existing connections of stormwater flows to sanitary or combined sewers and redirection of these stormwater flows to a storm drain system and Fort Point Channel discharge. P-07.1

While the Project area is served by separate sanitary sewers, it is also crisscrossed with BWSC combined sewers and combined sewer outfalls that serve upstream combined sewer areas, including but not limited to Chinatown, the Financial District and the North End. The separate sanitary sewers serving the Project area also eventually tie into these large BWSC combined sewers for transport to MWRA's system in South Boston. These combined sewers and combined sewer outfalls are intended to remain and provide transport and system relief in the long term. BWSC CSO outfalls discharging to Fort Point Channel cross by or through the Project area at Summer Street (Outfall BOS064), beneath the South Postal Annex (Outfall BOS065), and further south in the rail yards (Outfall BOS068). **P-07.2**

The configuration and performance of these systems, including the frequency and volume of combined sewer overflow (CSO) discharges at each outfall are the subjects of Federal District Court Order mandates, U.S. EPA National Pollutant Discharge Elimination permits issued to MWRA and BWSC, and regulatory performance measures. Any changes to the physical configuration, location and/or hydraulic performance of these sewers and outfalls must be carefully evaluated to determine how they may affect compliance with Federal Court mandates and regulatory requirements, as well as water quality conditions in Fort Point Channel.
The Project must not compromise MWRA and BWSC's ability to attain required long-term levels of CSO control, and any Project opportunities to support or enhance the levels of CSO control should be recognized and pursued if appropriate. MWRA asks that MassDOT ensure that all elements of the project affecting wastewater and stormwater infrastructure be coordinated with MWRA and BWSC as early and frequently as possible during detailed planning and design to allow for the avoidance of impacts and to maximize possible benefits. **P-07.3**

The BWSC sanitary sewers serving the Project area carry flows to BWSC combined sewers and. eventually, major MWRA facilities. In large storms, the addition of large volumes of stormwater to this combined sewer system from other areas can overwhelm the capacities of the sewers and facilities, contributing to CSO discharges to Fort Point Channel. With the cooperation of BWSC, MWRA is implementing an $867 million program of local and regional wastewater system improvements to control CSO discharges, including overflows to the Fort Point Channel, to bring discharges into compliance with the Federal Clean Water Act and improve area receiving water quality. New sanitary flow to the BWSC and MWRA systems should be fully offset to help ensure that the benefits of CSO control, including water quality improvements, will be attained. To avoid increasing CSO discharges or otherwise compromising CSO control goals, MassDOT should fully offset any increase in wastewater flow with stormwater inflow reduction, infiltration (groundwater) and inflow removal or sewer separation **P-07.4**

in hydraulically related sewer systems. Any net increase of flow should also be mitigated in compliance with MassDEP's Policy on Managing Infiltration and Inflow in MWRA Community Sewer Systems (BRP 09-01) and with BWSC policy and regulations. BWSC has offset requirements that should be satisfied to ensure that the new sanitary flows will not contribute to higher CSOs. P-07.4 (cont.)

TRAC Discharge Permitting

The MWRA prohibits the discharge of groundwater to the sanitary sewer system, pursuant to 360 C.M.R. 10.023(1) except in a combined sewer area when permitted by the Authority and the Boston Water Sewer Commission (BWSC). The proposed Project will have access to a storm drain and it is not located in a combined sewer area; therefore, the discharge of groundwater to the sanitary sewer system is prohibited. MassDOT will instead need to secure a USEPA-NPDES General Permit for Storm Water Discharges from its construction activities. P-07.5 P-07.6

If tunnels are to be constructed as part of the South Station Expansion Project, the discharge of seepage or continuous groundwater discharge into the MWRA sanitary sewer system is prohibited. The MWRA will not allow the discharge of post-construction groundwater seepage into the sanitary sewer system, pursuant 360 C.M.R. 10.023(1).

Once the South Station Expansion Project is completed, and if the proponent(s) intends to discharge wastewater from a vehicle wash and/or maintenance operation to the sanitary sewer system, MassDOT must apply for an MWRA Sewer Use Discharge Permit. For assistance in obtaining this permit, the Proponent should contact Mr. Stephen Buczko, Industrial Coordinator within the TRAC Department at (617) 305-5619. MassDOT is required to have this permit prior to discharging wastewater from the vehicle wash process into the MWRA sanitary sewer system. P-07.7

MassDOT must also comply with 360 C.M.R. 10.016, if it intends to install gas/oil separator(s) in any of its bus and/or rail facilities to support shops, vehicle storage buildings, and/or in the vehicle wash building planned for the site. In addition to complying with 360 C.M.R. 10.000, MassDOT shall confonn to the regulations of the Board of State Examiners of Plumbers and Gas Fitters,. 248 C.M.R, 2.00 (State Plumbing Code), and all other applicable laws. The installation of proposed gas/oil separator(s) will require MWRA approval and may not be back filled until inspected and approved by the MWRA and the Local Plumbing Inspector. For assistance in obtaining an inspection for each facility MassDOT should contact Thomas Coffey, Source Coordinator within the TRAC Group at (617) 305-5624. P-07.8

Section 8 fm) Permitting

Section 8 (m) of Chapter 372 of the Acts of 1984, MWRA's Enabling Legislation, allows the MWRA to issue permits to build, construct, excavate, or cross within or near an easement or other property interest held by the MWRA, with the goal of protecting Authority-owned infrastructure. MWRA owns and maintains a large diameter brick sewer in the Beacon Park Yard that will likely trigger the need for an 8 (m) permit. MassDOT should contact Mr. Kevin McKenna within MWRA's Wastewater Operations Permitting Group at (617) 350- 5965 for assistance in this permitting process. P-07.9

Should you have any questions or require further information on these comments, please contact me at (617) 788-1165.

Very truly yours,

M. Connolly

Marianne Connolly
Sr. Program Manager,
Environmental Review and Compliance

cc: David Kubiak, MWRA Engineering & Construction
Kattia Thomas, TRAC
Kevin McKenna, MWRA Wastewater Operations Permitting
Kevin Brander, DEP

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Koston
Thomas M. Menino, Mayor

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MEPA

April 8, 2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
Holly Johnson, EEA# 15028
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: South Station Expansion - Environmental Notification Form Scope of Work

Dear Secretary Sullivan,

The City of Boston Public Works Department would like to thank you for the opportunity to comment on the South Station Expansion Project. This project will greatly enhance the economy of the region, foster smart growth and reduce pollution.

After reviewing the associated ENF and attending the public meeting on April 1st, the Public Works Department is particularly concerned with Alternative 5, which recommends locating the layover facility on a portion of the land that Is currently used as the headquarters for this department's Field Operations.

P-08.1

Therefore, we request the ENF Scope of Work to consider the full impact this alternative has on this site and its operations, which include:

- Maintaining the City's fleet of cars and trucks,
- Parking at night for dump trucks, front end loaders, street sweepers, etc.
- Salt and sand is stored at the site for use during winter,
- Storage of equipment and construction materials,
- A fuel station that supports the majority of city vehicles
- Public Works Central offices.

As part of Public Works capital improvement program for the next two years, Public Works is planning to construct a new salt shed at a cost of $3,500,000 and a new truck wash at a cost of $15,000,000. These facilities will be constructed on land that is within the area proposed for the layover facility,

In preparation of this letter and to assist you in developing the scope, the City met with your consultant, VHB, who is working for your office in preparing the ENF. Public Works personnel toured the site with your consultants to review our operations and discuss our concerns. Those concerns include:

PUBLIC WORKS DEPARTMENT / Boston City Hall / City Hall Square 02201
Joanne P. Massaro, Commissioner of Public Works
617-635-4900 Fax 617-635-7499

1. Our storage area for building maintenance and heavy maintenance will be eliminated.
2. Our refueling station will be eliminated.
3. Public Works maintenance garages that service the City's automobile and light truck fleet will be eliminated will have its side secondary entrance for vehicles closed down and will effect operations and eliminate a secondary means of egress.
4. Our storage area for building maintenance and heavy maintenance will be eliminated.
5. Eliminating the road along the easterly side of our main building will interfere with our snow removal operations. Trucks travel this road after being loaded up with salt. The road is critical as there is no area available for truck to turn around to exit the facility after loading up.
6. This alternative proposes to shift the property Sine up against the easterly side of our main building'and parking garage, This will trigger other impacts including:
    - o Access to the parking garage from the east side will be eliminated and reduce our efficiency. This also acts as a secondary means of egress for staff in the event of an emergency,
    - o Drainage for the parking garage flows to the eastern side of our property through land that will be occupied by trains,
    - o The second floor offices containing Public Works Personnel and staff for the senior shuttle will lose their second means of egresses,
    - o Service for domestic and fire water lines are located along the eastern side of the building on property that will become the layover facility.

P-08.1 (cont.)

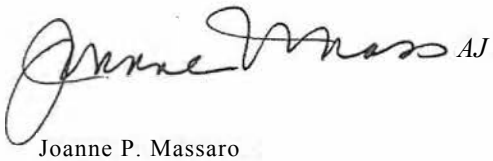
We believe that Alternative 5 greatly diminishes the functionality of our field operations at 400 Frontage Road and do not agree with ENF's current assessment that a partial taking of land that is currently part of our operations will allow us to maintain effective operations. Therefore, we request that the scope of work now being developed forthe ENF further study this alternative and to consider our issues listed above to determine what can be done to still utilize the site based on the reduced land area. This will most likely include construction of new facilities on the property or relocating our operations to a new site.

P-08.2

P-08.3

Thank you for the opportunity to provide comments in shaping the scope of work for the ENF. My office and staff are available to meet to discuss our concerns and to aid you in moving this vital project forward.

Sincerely,



Joanne P. Massaro
Commissioner

Boston Redevelopment Authority

Boston's Planning & Economic Development Office

Thomas M. Menino, Mayor
Clarence J. Jones, Chairman
Peter Meade, Director

One City Hall Square
Boston, MA 02201-1007
Tel 617-722•4300
Fax 617-248-1937

April 4, 2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
Holly Johnson, EEA# 15028
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: South Station Expansion - Environmental Notification Form (ENF)

Dear Secretary Sullivan,

The City of Boston has been coordinating closely with MassDOT on their South Station Expansion Project. This letter incorporates comments from multiple City agencies on the scope of this project's MEPA permitting requirements and includes the Boston Redevelopment Authority (BRA), the Boston Transportation Department (BTD), the Public Works Department (PWD) and the Environment Department (BED).

South Station Track Expansion

The expansion of capacity at South Station is critical for improved mobility in Eastern Massachusetts and will have a transformative impact on the City and South Station area. Our primary areas of concern include: P-09.1

- Continuing close and collaborative planning with USPS and MassDOT on the relocation of the General Mail Facility. P-09.2
- Design additional tracks that meet the operating needs of the MBTA/Amtrak and includes the infrastructure needs for future development on both air rights over the tracks and any remaining site areas. P-09.3
- Design of public circulation areas that provides: maximum comfort and amenities; through site connectivity; and integration of existing historic head house and the impending South Station Air Rights development project. P-09.4
- Reconnect Dorchester Avenue and incorporate the City's Complete Streets principles. P-09.5
- The construction of a new link in the City's Harborwalk system along Fort Point Channel. P-09.6
- Generous and efficient facilities for cyclists including expanded bike share accommodations. P-09.7
- The development of a master plan for the South Station - USPS area and subsequent amendment to the Fort Point Downtown Waterfront Municipal Harbor Plan. P-09.8

- Construction and operations design that accounts for projected sea level rise and storm surge. P-09.9
- Improved understanding of the air quality effects on the surrounding area and customers, by requesting the DEIR to include; P-09.10
    - o The number of existing daily diesel locomotive trips and the expected number of daily diesel locomotive trips at full build
    - o The levels of air toxins generated by existing trips and expected generation as a result of the added trips

Mid-day Layover

The siting for mid-day layover facilities will also have considerable impacts on the city and its adjacent neighborhoods. All sites under review need to consider:

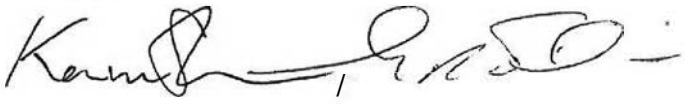
- Coordination with the impacted communities and the Mayor's Office of Neighborhood Services (ONS), to mitigate impacts and community concerns. P-09.11
- Construction and operations design that accounts for projected sea level rise and storm surge. P-09.12
- Expected noise impacts and proposed mitigations to the surrounding area. P-09.13
- Improved understanding of the air quality effects on the surrounding area, by requesting the DEIR to include: P-09.14
    - o The number of expected number of daily diesel locomotive trips at full build
    - o The levels of air toxins generated expected generation as a result of the trips

The City will continue to work with MassDOT on the "BTD Tow Lot" site. It should be clear that this site also impacts the Public Works Department's essential field operations headquarters and other supporting uses on this site. As conceptually designed, the layover facility would render the building unusable and would need to be relocated along with other impacted functions. Please refer to Commissioner Massaro's letter to you dated April 8, 2013, for a more complete articulation of impacts and required actions. P-09.15

In order to help the City determine the relocation options for the BTD tow lot and PWD operations building and functions, we are requesting that MassDOT conduct a "needs assessment analysis" with the City. This step will provide a current and complete understanding of where and how these critical functions could be relocated, and will allow for easier implementation of a mid-day layover facility if this alternative is chosen by MassDOT. P-09.16

Thank you for the opportunity to comment on this significant project.

Sincerely,



Kairos Shen
Chief Planner

Thomas J. Tinlin
Commissioner
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HD

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April 9, 2013

Secretary Richard K, Sullivan, Jr
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
Holly Johnson, EEA No. 15028
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: South Station Expansion Project - Environmental Notification Form

Dear Secretary Sullivan:

The Boston Water and Sewer Commission (Commission) has reviewed the Environmental Notification Form (ENF) for the South Station Expansion Project. The entire project site occupies approximately 49 acres; bounded by Chinatown and the Leather District to the west and Fort Point Channel to the east. The project site contains the South Station Rail/Transit Terminal and the South Station Bus Terminal (about 16 acres) as well as the United States Postal Service (USPS) General Mail Facility/South Postal Annex (also about 16 acres). The remaining 17 acres is comprised of railroad track, a small park, the Harborwalk area and a portion of Fort Point Channel at the southern end of the site. The Massachusetts Department of Transportation (MassDOT) is the proponent for the South Station Expansion Project

The Commission has developed a plan to improve the BOS 065 outfall pipe which runs under the p.^o l USPS South Postal Annex. The Commission's design is complete but coordination with USPS is necessary. The MassDOT should assist the Commission coordinating these improvements with the USPS.

The Commission owns and maintains water, sewer and stormwater facilities within and abutting p ^ ^ the project site. For example, the combined sewer overflow outfalls: BOS 064, BOS 065,

BOS 068 and BOS 072 are located within the project site. During redevelopment, the Commission's outfall pipes must protected from construction-related damages. The Commission requests that the MassDOT takes appropriate measures to ensure that these outfalls are not damaged during construction. P-10.2 (cont.)

The Commission is responsible for the water quality of stormwater discharges from its storm drains. The MassDOT should identify if and where the storm drains on the project site are connected to the Commission's storm drains. P-10.3

In 2006, the Secretary of Energy and Environmental Affairs approved the South Station Air Rights Project which will be included in the redevelopment of the project site. This project includes approximately 1.765 million square feet of mixed-use development, an expansion of the bus terminal and a three-level parking garage to be located directly above the railroad tracks at the South Station headhouse. The MassDOT should include these improvements in the Draft Environmental Impact Report (DEIR). P-10.4

Typically, the Massachusetts Department of Environmental Protection (MADEP) requires projects that add a significant amount of wastewater to offset this increase with a reduction in EL The minimum ratio used by MADEP is 4 toi; 4 gallons of El removed for each gallon of proposed wastewater. For projects under MEPA review, the Secretary's certificate usually stipulates that the proponent participate in this 4 to 1 program. P-10.5

Almost all of the rain falling on the current site will run off to a storm drain or overland to Fort Point Channel. This project presents an opportunity for the MassDOT to capture or detain a portion of the water before it is discharged from the site. The Commission requires the MassDOT to investigate how Green Infrastructure can be accommodated on this site. The MassDOT will be required to submit runoff reduction estimates from Green Infrastructure to the Commission. These calculations can be submitted with the site plans. P-10.6

The DEIR must contain estimates of water demand, wastewater generation and a plan for controlling stormwater discharges. The following comments should be taken into consideration in the preparation of the DEIR. P-10.7

General

1. Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. The proponent must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission and submit the completed P-10.8

form to the City of Boston's Inspectional Services Department before a demolition permit will be issued. P-10.8 (cont.)

2. All new or relocated water mains, sewers and storm drains must be designed and constructed at the MassDOT's expense. They must be designed and constructed in conformance with the Commission's design standards, Water Distribution System and Sewer Use Regulations, and Requirements for Site Plans. To assure compliance with the Commission's requirements, the proponent must submit a site plan and a General Service Application to the Commission's Engineering Customer Service Department for review and approval. The plans should be submitted when the design of the new water, wastewater and proposed service connections are 50 percent complete. The plans should also include the locations of proposed service connections as well as water meter locations. P-10.9

3. The MADEP, in cooperation with the Massachusetts Water Resources Authority (MWRA) and its member communities, are implementing a coordinated approach to flow control in the MWRA's regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration/ inflow (I/I)) in the system. In this regard, MADEP has been routinely requiring proponents proposing to add significant new wastewater flow to assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, MADEP is typically using a minimum 4:1 ratio for I/I removal to new wastewater flow added. The Commission supports the MADEP/MWRA policy, and will require the MassDOT to develop a consistent inflow reduction plan. The 4:1 requirement should be addressed at least 90 days prior to activation of water service and will be based on the estimated sewage generation provided on the project site plan. P-10.10

4. The design of the project should comply with the City of Boston's Complete Streets Initiative, which requires incorporation of "Green Infrastructure" into street designs. Green Infrastructure includes greenscapes, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The proponent must develop a maintenance plan for the proposed Green Infrastructure. For more information on the Complete Streets Initiative see the City's website at http://bostoncompletestreets.org/ P-10.11

5. The MassDOT should provide separate estimates of peak and continuous maximum water demand for residential, irrigation and air-conditioning make-up water for the project. Estimates should be based on full-site build-out of the proposed project. The MassDOT should also provide the methodology used to estimate water demand for the proposed project. P-10.12

6. For any proposed masonry repair and cleaning, the MassDOT will be required to obtain from the Boston Air Pollution Control Commission a permit for Abrasive Blasting or Chemical Cleaning. In accordance with this permit, the MassDOT will be required to provide a detailed description as to how chemical mist and run-off will be contained and either treated before discharge to the sewer or drainage system or collected and disposed of lawfully off site. A copy of the description and any related site plans must be provided to the Commission's Engineering Customer Service Department for review before masonry repair and cleaning commences. The MassDOT is advised that the Commission may impose additional conditions and requirements before permitting the discharge of the treated wash water to enter the sewer or drainage system. P-10.13

7. The MassDOT should be aware that the US Environmental Protection Agency issued a draft Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, the MassDOT will be required to apply for a RGP to cover these discharges. P-10.14

8. The MassDOT is advised that the Commission will not allow buildings to be constructed over any of its water lines. Also, any plans to build over Commission sewer facilities are subject to review and approval by the Commission. The project must be designed so that access, including vehicular access, to the Commission's water and sewer lines for the purpose of operation and maintenance is not inhibited. P-10.15

9. The Commission will require the MassDOT to undertake all necessary precautions to prevent damage or disruption of the existing active water and sewer lines on, or adjacent to, the project site during construction. The proponent should review CCTV inspections of existing sewer lines within the project site. Copies of the CCTV inspection videos must be provided to the Commission during site plan review. As a condition of the site plan approval, the Commission will require MassDOT to re-inspect the existing sewer lines on site by CCTV after site construction is complete, to confirm that the lines were not damaged from construction activity. P-10.16

10. It is the MassDOT's responsibility to evaluate the capacity of the water, sewer and storm drain systems serving the project site to determine if the systems are adequate to meet future project demands. With the site plan, the MassDOT must include a detailed capacity analysis for the water, sewer and storm drain systems serving the project site, as well as an analysis of the impacts the proposed project will have on the Commission's water, sewer and storm drainage systems. P-10.17

Water

1. The MassDOT must provide separate estimates of peak and continuous maximum water demand for residential, commercial, industrial, irrigation of landscaped areas, and air-conditioning make-up water for the project with the site plan. The estimates should be based on full-site build-out of the proposed project. The MassDOT should also provide the methodology used to estimate water demand for the proposed project.

2. The MassDOT should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code, In particular', the MassDOT should consider outdoor landscaping which requires minimal use of water to maintain. If the MassDOT plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should be considered. P-10.18

3. The MassDOT is required to obtain a Hydrant Permit for use of any hydrant during the construction phase of this project. The water used from the hydrant must be metered. The MassDOT should contact the Commission's Operations Division for information on and to obtain a Hydrant Permit. P-10.19

4. If water service is to be provided to the proposed docks in the marina, the MassDOT will be required to install cross connection control devises on the water service. The MassDOT will also be required to install approved backflow prevention devices on the water services for fire protection, vehicle wash, mechanical and any irrigation systems. The MassDOT is advised to consult with Mr. James Florentino, Manager of Engineering Code Enforcement, with regards to backflow prevention. P-10.20

5. The Commission is utilizing a Fixed Radio Meter Reading System to obtain water meter readings. For new water meters, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, the MassDOTs should contact the Commission's Meter Department. P-10.21

Sewage / Drainage

1. In conjunction.with the Site Plan and the General Service Application, the MassDOT will be required to submit a Stormwater Pollution Prevention Plan. The plan must: P-10.22

• Identify specific best management measures for controlling erosion and preventing the discharge of sediment, contaminated stormwater or construction debris to the Commission's drainage system when construction is underway. P-10.22 (cont.)

« Includes a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control structures or treatment structures to be utilized during the construction.

• Specifically identify how the project will comply with the Department of Environmental Protection's Performance Standards for Stormwater Management both during construction and after construction is complete.

• Provides a stormwater management plan in compliance with the DEP standards mentioned above. The plan should include a description of the measures to control pollutants after construction is completed.

2. Developers of projects involving disturbances of land of one acre or more will be required to obtain an NPDES General **Permit** for Construction from the **Environmental** Protection Agency and the MADEP. The MassDOT is responsible for determining if such a permit is required and for obtaining the permit. If such a permit is required, it is required that a copy of the permit and any pollution prevention plan prepared pursuant to the permit be provided to the Commission's Engineering Services Department, prior to the commencement of construction. The pollution prevention plan submitted pursuant to a NPDES Permit may be submitted in place of the pollution prevention plan required by the Commission provided the Plan addresses the same components identified in item 1 above. **P-10.23**

3. The Commission encourages MassDOT to explore additional opportunities for protecting stormwater quality on site by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers. **P-10.24**

4. The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. The MassDOT is advised that the discharge of any dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission. If the dewatering drainage is contaminated with petroleum products, the MassDOT will be required to obtain a Remediation General Permit from the Environmental Protection Agency (EPA) for the discharge. **P-10.25**

5. The MassDOT must fully investigate methods for retaining stormwater on-site before the Commission will consider a request to discharge stormwater to the Commission's system. The site plan should indicate how storm drainage from roof drains will be handled and the feasibility of retaining their stormwater discharge on-site. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. P-10.26

6. If pump-out stations are to be constructed for the new slips, the wastewater from the pump-out station must be discharged to a sanitary sewer. The MassDOT is advised to consult with Mr. Phil Larocque, Site Plan Engineer, with regard to connecting the pump-out station to a sanitary sewer. P-10.27

7. Sanitary sewage must be kept separate from stormwater and separate sanitary sewer and storm drain service connections must be provided. P-10.28

8. The Commission requests that the MassDOT install a permanent casting stating "Don't Dump: Drains to Boston Harbor" next to any catch basin created or modified as part of this project. MassDOT should contact the Commission's Operations Division for information regarding the purchase of the castings. P-10.29

9. If a cafeteria or food service facility is built as part of this project, grease traps will be required in accordance with the Commission's Sewer use Regulations. The MassDOT is advised to consult with the Commission's Operations Department with regards to grease traps. P-10.30

10. The enclosed floors of a parking garage must drain through oil separators into the sewer system in accordance with the Commission's Sewer Use Regulations. The Commission's Requirements for Site Plans, available by contacting the Engineering Services Department, include requirements for separators. P-10.31

11. Rinse water from the bus washing facility is required to go through an oil trap and discharge to the sanitary sewer system. P-10.32

12. The Commission requires installation of particle separators on all new parking lots greater than 7,500 square feet in size. If it is determined that it is not possible to infiltrate all of the runoff from the new parking lot, the Commission will require the installation of a particle separator or a standard Type 5 catch basin with an outlet tee for the parking lot. Specifications for particle separators are provided in the Commission's requirements for Site Plans. P-10.33

13. The Commission requires that existing stormwater and sanitary sewer service connections, which are to be re-used by the proposed project, be dye tested to confirm they are connected to the appropriate system. P-10.34

Thank you for this opportunity to comment on the South Station Expansion Project.

Yours truly,

John P. Sullivan, P.E.
Chief Engineer

JPS/pwk

c
Katherine Fichter, MassDOT
Ronald D. Schlesinger, USPS
M. Zlody, Boston Environment
C. Jewell, BWSC
P. Larocque, BWSC

City of Cambridge * Executive Department

Robert W. Healy, City Manager Richard C. Rossi, Deputy City Manager

April 9,2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs.
Attn: MEPA office, EEA # 15028, Holly Johnson
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Sullivan:

The City of Cambridge appreciates the opportunity to comment on the Environmental Notification Form for the proposed South Station Expansion project

Public transit is critical to making the City of Cambridge a livable and economically thriving city. Over 73% of the Massachusetts population lives within the MBTA service district, with over 1.3 million trips taken each day. According to the 2010 census, 27% of all Cambridge residents rely on transit as their primary means of commuting to work. Many more use transit as a secondary means to get to work and use it regularly for non-commuting purposes. The MBTA Red Line carries 250,000 riders per typical weekday. As the economy and population expands, and more households make lifestyle choices to live with only one car or car-free, transit ridership numbers will continue to grow.

P -11.1

The ability of our region's economy to grow depends largely on the efficiency and effectiveness of our transportation system. Regional projections for mobility needs by the year 2035 indicate that there will be a 7% increase in demand for our roadways and a 30% increase in demand for transit service. The recent Global Warming Solutions Act had the Commonwealth set a goal of reducing GHG emissions by between 10% and 25% below 1990 levels by 2020, only achievable with more public transit

P-11.2

South Station is currently at maximum capacity. Any slight delay of one train during peak travel time causes a domino effect on many subsequent trains. Our current predicament has its roots in the 1960s when the Boston Redevelopment Authority purchased the site from the bankrupt New Haven Railroad and sold part of the rite to the postal service, thereby significantly reducing the number of tracks.

P-11.3

795 Massachusetts Avenue, Cambridge, Massachusetts 02139
Voice: 617-349.4300 Fax: 617.349.4307 TTY: 617.349.4242 Web: www.ci.cambridge.ma.us

The Red Tine provides direct access to South Station from Cambridge, allowing connections to points South and West An expansion of South Station would allow for increased frequency and reduced delays on existing routes bringing an increase in riders. It would also allow opportunities . for new destinations to be served Rapid-transit service along commuter rail lines would also be possible. This increases transit access to jobs in Cambridge, and jobs for Cambridge residents outside of Cambridge, allowing us to develop more sustainably and reduce our reliance on the automobile. P-11.4

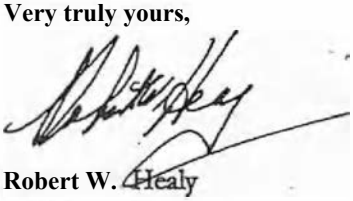
Cambridge requests that MEPA require that the South Station Expansion Project take into careful consideration the potential for future transportation uses of underground real-estate in the area as the expansion and associated air-rights projects move forward. P-11.5

As the project moves forward, Cambridge would appreciate being involved in discussions regarding further design and selection of the layover facility alternatives, with a particular interest in Beacon Park Yard. P-11.6

The South Station Expansion project is a responsible first step to start bringing the transit system in the Boston region up to a world-class standard As difficult as it is in these challenging fiscal times, it is critical that we keep in sight other expansion projects, such as the Urban Ring circumferential transit project, without which our economic competitive edge will continue to erode. P-11.7

Please do not hesitate to contact me to discuss this further or contact Jeff Rosenblum at jrosenblum@cambridgema.gov or (617) 349-4615.

Very truly yours,



Robert W. Healy
City Manager

cc: Katherine Fichtet, MassDOT

495/Metro West
Partnership
Leaders for Regional Prosperity

HD

April 9, 2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
MEPA Office
Attn: Holly Johnson, MEPA Analyst
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: EEA # 15028; Environmental Notification Form for South Station Expansion Project

Dear Secretary Sullivan:

On behalf of the 495/MetroWest Partnership, we would like to offer our support for the proposed South Station Expansion Project (SSX) by the Massachusetts Department of Transportation (MassDOT).

The 495/MetroWest Partnership is a non-profit advocacy organization serving thirty-three communities, over half a million residents, and an employment base of approximately $17 billion, by addressing regional needs through public-private collaboration, and by enhancing economic vitality and quality of life while sustaining natural resources. The Partnership is concerned about regional constraints and limitations, and conducts numerous initiatives on transportation, workforce housing, brownfields, and water resources.

The Partnership's region includes three commuter rail lines, two of which originate at South Station, namely the Franklin Line and the Worcester/Framingham Line. Much of our work focuses on transportation and transit infrastructure needs. Certainly the expansion of South Station is essential to realizing many of the Partnership's goals regarding commuter rail service to and from our region. Given our region's progression to becoming a net importer of labor, commuter rail services and options are becoming of greater importance, particularly the need for reverse commute schedules and in general expanding the schedule along our lines. N-01.1

The capacity constraints at South Station are a concern to the Partnership especially in light of the expanded service schedule planned for the Worcester/Framingham Line following successful negotiations between the Patrick/Murray Administration, MassDOT, the MBTA and CSX. Improving the capacity, reliability, and layover space at South Station, all elements included in the SSX project, is vital to the growing demand for commuter rail service in our region. N-01.2

The 495/MetroWest Partnership is in full support of the South Station Expansion Project; we hope that these comments are helpful in your consideration. If you have any questions, please contact our Deputy Director, Jessica Strunkin, at 774.760.0495 x101 or Jessica@495partnership.ors any time. ^-01.3

Sincerely,

Paul F. Matthews
Executive Director

JessicaStrunkin
Deputy Director

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m S 2013

April 4, 2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: South Station Expansion Project: Environmental Notification Form, EEA No. 15028

Dear Secretary Sullivan:

A Better City (ABC) is pleased to submit comments in support of the South Station Expansion Project. We believe that the South Station expansion is a critical component in the multimodal transportation network of Massachusetts, its commuter rail system, and New England's regional rail vision as well as N-02.1
long term growth and viability of the Northeast Corridor. We recognize that in addition to improvements to supplement capacity at South Station in Boston, enhanced rail layover capacity is an integral part of this project. The viability of many other transportation projects planned for the region and the Northeast Corridor are dependent upon the creation of additional capacity at the South Station platforms and the efficient rail operations in the immediate vicinity of the station, in the layover yards, and in the tracks that connect the yards with the station. ABC support and advocacy for related rail improvements underscores the urgency for advancing the South Station Expansion Project.

ABC is a nonprofit membership organization that provides the business and institutional leadership essential .for. ensuring progress and tangible results on transportation, land development, and public realm infrastmcture.'investments that are vital to sustaining and improving the Boston area's economy and quality of life.

The ABC Board of Directors comprises leaders from over 100 major businesses and institutions in greater Boston and represents a broad range of industries, including financial services, real estate, legal services, construction, higher education, cultural institutions, life sciences, hospitality, utilities, and more. The Board has an established history of civic engagement and is actively engaged in the work and issues that comprise ABC's mission. ABC is also a member of the Business Alliance for Northeast Mobility and actively supports rail service improvements in the Northeast Corridor.

The Environmental Notification Form and its attachments describe the broad range of environmental, land use, and transportation issues that need to be addressed before this complex project can move forward. The general description of alternatives captures the basic approaches that will need to be much more fully developed in the Environmental Impact Report. It will be very important that the environmental analysis N-02.
fully documents the relationship of these alternatives and their associated impacts on the immediate context. That analysis also needs to include a thorough review of options for layover facilities and impacts on their surroundings in South Bay, Readville, and Beacon Park.

ABC and members for our committees have held several meetings with MassDOT officials as this project has been taking shape and we welcome the opportunity to continue our participation during the N-02.3
environmental review, planning, and design process as the scope takes shape and as review continues.We will submit more detailed substantive comments at a later date.

Sincerely,

Thomas J. Nally
Planning Director,

5913/1 ssxlt405

Association for Public Transportation

Northeast High Speed Rail Association
Massachusetts Association of Railroad Passengers

www.northeasthsr.org

www.aptmarp.org

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9 April 2013

Secretary Richard K. Sullivan, Jr.
Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs, MEPA Office, EEA # 15028
Attention: Holly Johnson, MEPA Analyst
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: South Station Expansion Plans

Via e-mail & fax: Fax: 617-626-1181 Email: Holly.S.Johnson@state.ma.us

Dear Secretary Sullivan:

A key term that arises when discussing the funding and construction of strategic transportation infrastructure is **SUSTAINABILITY**. Under that encompassing term are other project questions: N-03.1

- Is the project is economically sound?
- Does the project work from an engineering, technology, operational standpoint?
- Are the parties giving full weight that this is a once in a century investment?
- Is it both flexible and expandable to meet both anticipated and some unanticipated needs?
- Are life cycle costs as well as initial construction costs taken into consideration?
- Does it utilize best-in-class, peer-reviewed methodologies?
- Does this project meet the needs of the entire Megaregion, and not just a small segment?
- How does it impact the entire transportation network; is it a standalone system or does is symbiotically make the other pieces perform better?
- Does the project maximize its environmental improvement potential?

When the $850 million South Station Expansion (SSX) project is looked at under this microscope, it is found to be sadly deficient. The most disconcerting issue is that South Station is not a station at all - it is s stub-end terminal, constrained by the Charles River to its north and Boston Harbor to its east. As a stub terminal, it loses half of its peak capacity as precious time slots must be apportioned to bring full trains out and empty trains in, and vice versa. There is no ability to expand the service north to the population and business areas north of Boston and in New Hampshire and southern Maine. The proposed SSX plan would increase the operational inefficiencies in both the MBTA commuter rail network and Amtrak intercity rail which are forced to run bifurcated systems out of both North and South Stations in Boston. N-03.2

Around the world, much thought has been given to making train stations attractive, accessible, successful, and efficient. Planners and architects have realized that the most successful stations have the tracks and platforms below grade. The very important ground level is best used for retail (shops, restaurants, other services). These shops attract foot traffic which makes the station not just a transportation mecca; it is also a prized destination. The rents, fees, and taxes generated by the ground level and lower floor shops contribute to covering the operating costs of the station. But without shops on the ground floor, the appeal is gone, as are the benefits of Value Capture Financing. N-03.3

What can resolve this deficiency? APT would propose consideration of the North/South Rail Link (NSRL) which, via underground tunnels and station platforms, can connect the two separate Boston terminals and likewise connect the region. True High Speed Rail (HSR) is coming to Boston, but it will be inconvenient for those living north of Boston or in southern NH. It will be easier, quicker, and more convenient for them to fly to other cities on the Northeast Corridor (NEC) rather than take the train – it is simply too cumbersome to transfer from North Station to South Station or to drive to the Boston or Route 128 Westwood HSR stations. The NSRL and a Woburn (Anderson) HSR station north of Boston address that issue nicely, conveniently, and cost-effectively. N-03.4

Another point to consider is the capacity situation of the Greater Boston MBTA subway. Many key stations, such as Park St., Downtown Crossing, Government Center, and State Street are at or near capacity. This is in part due to commuter rail riders who, due to the split MBTA commuter rail system, have to detrain on the wrong side of the city. To get to their eventual destination, they use the subway, and traverse the downtown core. The NSRL would alleviate this problem by permitting commuters to get closer to their eventual destination without necessarily requiring them to tie up capacity at downtown subway stations. N-03.5

From an environmental standpoint, the SSX project is especially lacking versus the NSRL alternative. Per the North/South Rail Link MIS/DEIS, the NSRL project would: N-03.6

- Eliminate 55,000 car trips daily,
- Save commuters over 50,00 hours daily
- Eliminate 1 million vehicle miles traveled on the regional highway system in a typical weekday,
- **PREVENT the EMISSION of OVER 580 TONS of GREENHOUSE GAS DAILY**

No other transportation project in the Commonwealth grades out this highly in terms of environmental benefit.

Mr. Secretary, APT formally requests that you find the SSX proposal as submitted by the Commonwealth inconclusive and incomplete in that it does not review the substantial benefits of the NSRL. We would further request that you direct MassDOT to appropriate the funding to complete the preliminary engineering of the NSRL, following up the $4.5 million initial study funded by the federal government. APT submits that this is not just good practice, it is a legal requirement. Language in the NSRL MIS/DEIS stated that the proposed right of way for the Rail Link was not to be obstructed by any other development. It is distinctly possible that proposed development at South Station and the South Postal Annex will make constructing the NSRL impossible. The Commonwealth's commuters, businesses, citizens, tax payers, and fare payers deserve better than the incomplete and deficient SSX plan currently proposed. N-03.7 N-03.8

Sincerely,

Richard J. Arena
President, Association for Public Transportation

C: Honorable Deval Patrick, Governor of the Commonwealth of Massachusetts
Secretary Richard Davey, MassDOT CEO
Ms. Rebecca Reyes-Alicea, US Department of Transportation
Ms. Katherine Fichter, MassDOT SSX Project Manager

downtown north association

April 9, 2013

Richard K. Sullivan, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: The Environmental Notification Form (ENF) for the South Station Expansion Project

Dear Secretary Sullivan,

My comments on the South Station Expansion Project relate primarily to its implications for the North/South Rail Link (NSRL) Project. They are offered from the perspective of the NSRL Project Citizens Advisory Committee, which was convened by EOEEA and for which I served as Chair, as well as from the related perspective of the Downtown North Association, which represents the sector of Boston that includes North Station.

With the exception of a single reference to the 2003 Secretary Certificate for the NSRL Project Environmental Impact Report as being among nine other projects involving South Station, there is no reference or substantive attention paid to the implications of the proposed South Station Expansion Project for the North/ South Rail Link Project -- or vice versa. This is notable failing of both the South Station Expansion Project ENF and the ongoing $40M DOT planning study of track/ terminal expansion and related development issues/ opportunities at South Station precisely because many of those same issues are among the critical matters that were addressed by the NSRL/DEIR and would be resolved by the NSRL project itself. N-04 1

Not to consider the NSRL in the context of the South Station Expansion Project is shortsighted from both transportation and development perspectives; but it is also procedurally and legally problematic. Since the NSRL/DEIR is still pending, any proposed project involving South Station is required to address its consequences, for better and/or for worse, for the previous projects that have already been the subject of a Secretary's Certificate - and that certainly includes the rail link. Beyond that major procedural problem, there is a substantive problem in that its focus on more immediate issues -- e.g., the urgent need for more track and terminal capacity at South Station, the South Station Expansion Project overlooks future transportation and development issues and opportunities there and elsewhere - e.g., the continuing and related constraints on the capacity, efficiency and development potential of the regional rail network as a whole and the many advantages of extending the Northeast Rail Corridor north of South Station. Sf-04 2 N 04 3

There is some irony in the present state of affairs since, if we had begun to address those chronic and systemic needs more than a decade ago, when the NSRL/DEfR was first published in 2003, what were then identified as chronic network needs would not have become the acute South Station needs that they now are. Quite the contrary, if the NSRL had been built in the interim, we would now be planning to decease the number of surface tracks at South Station - and North Station — rather than increasing them; and while more tracks may be essential strategy now, they will certainly not be sufficient strategy in the longer run and in the larger context. N-04.4

Our very realistic concern is that we are now moving ahead quickly on the South Station project without taking the NSRL into serious and explicit account because we are relying on facts that we think we know about the NSRL and do not, while ignoring facts that we think we do not know about the NSRL and do. We do not know how much the NSRL will cost or how and by whom it will be financed, built or operated. But we do know how much the rail link will increase regional rail ridership and operational efficiency; we do know the extent of the unprecedented mode shift from other congested modes of air and highway travel to rail; we do know the befits of extending the Amtrak Northeast Rail Corridor to northern Massachusetts and New England; and perhaps most relevantly and importantly, we most certainly do know that the preferred NSRL alignment is through the South Postal Annex site, which is a central focus of the South Station Expansion Project. N-04.5

Because of the many and fundamental ways in which the South Station Expansion Project and the NSRL relate to one another, what the NSRL advocates have been asking for is to have the DEIR for the NSRL Project updated and finalized as an integral element of the South Station Expansion Project. This would be a relatively modest investment of both time and money - no more than $3M over the course of a few months - in the context of the $850M project now proposed; and it would allow us all to get reliable and definitive answers to the still unanswered questions about the NSRL. That would also make productive and timely use of the $4.5M public investment already made and the more than eight years of citizens, agency and professional effort already devoted to this matter. N-04.6

While it would make eminent sense to fully and finally answering any and all outstanding questions about the NSRL by finalizing its DEIR as part of ongoing planning for South Station expansion, to which it is inextricably linked, the very least that we should expect is that the considerable work already done on the NSRL will be taken into serious and explicit account in planning of the South Station track/ terminal expansion and related development. That clearly would involve the future development of the South Postal Annex, beneath which the rail link tunnels would run and an underground South Station would be located. It is essential to preserve and protect that constrained and critical right-of-way - the pending NSRL/DEIR would seem to require that; and it also makes great good planning sense to consider the option of constructing that new station as part and parcel of the larger redevelopment of that site. N-04.7

On the other hand, not to proactively consider that possibility as part of the redevelopment plan for SPO and South Station, for example, could inadvertently preclude that option — one of many ways in which the NSRL itself could be inadvertently precluded. All would agree that precluding the NSRL, advertently or inadvertently, would not be an acceptable outcome of the South Station Expansion Project. No matter how successful the present South Station track and terminal expansion project proves to be, it cannot integrate the regional rail system, it cannot extend the Northeast Rail Corridor beyond South Station, it cannot substantially and permanently expand the capacity and efficiency of the passenger rail system as a whole, and it does not address comparably urgent track/ terminal capacity problems at North Station. N-04.8

If in the process of expanding South Station as now proposed we compromise or eliminate the potential of the NSRL to do those very things, that would have very significant, and likely irreversible, transportation, economic and environmental consequences for achieve those goals in the future. Knowing what we know, that would be both irresponsible and excusable. And avoiding that predictable and avoidable result requires a comprehensive and anticipatory planning approach, which is no more nor less than we are hereby recommending and requesting.

In summary and conclusion, there is a lot at stake in the South Station Expansion Project, not just in and around South Station, but above and beyond South Station and environs. We are simply asking the South Station Expansion Project, for its own sake as well as due to its major implications of the NSRL Project, to complete the NSRL/DEIR as part of this project. At a minimum, we respectfully request that the South Station Expansion project ENF take into serious and explicit account what it has already been documented and demonstrated after $4.5M of professional analysis and countless hours of experienced citizen participation that have been devoted to evaluating the NSRL project thus far. Not to do so runs the real risk that the South Station Expansion Project might actually, even if unintentionally, preclude, compromise or delay the construction of the North/South Rail Link project, if not physically, then financially and politically.

Sincerely,

Robert B. O'Brien, DNA Executive Director
Chair of the NSRL Citizens Advisory Committee

cc: Governor Deval Patrick
MassDOT Secretary Richard Davey
South Station Expansion Project Manager Katherine Fichter
Peter Meade and Kairos Shen of the Boston Redevelopment Authority
Richard Bertman, President of the Downtown North Association

HD

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April 9, 2013

Richard K. Sullivan, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114-2150

RECEIVED
APR 10 2013
MEPA

Re: Boston – South Station Expansion Project
ENF (EEA #15028)

Attn: MEPA Unit
Holly Johnson

Dear Secretary Sullivan:

On behalf of Presidents and Fellows of Harvard University, I am submitting comments on the Environmental Notification Form filed by the Office of Transportation Planning of the Commonwealth of Massachusetts Department of Transportation, regarding the proposed South Station Expansion Project in Boston. If you have any questions regarding these comments, please call Joseph G. Beggan, Senior Manager for Transportation, at 617/495-2956 or the undersigned at 617/495-9687.

Thank you.

Sincerely,

Daniel Rabinovitz
Attorney for and on behalf of Harvard University

Cc: w/encl.
Kevin Casey
Joseph Beggan

Comments of Harvard University

on the

Environmental Notification Form for the South Station Expansion Project

(EOEA 15028)

April 9, 2013

I. **Background**. Harvard University ("Harvard") has reviewed the Environmental Notification Form ("ENF") for the South Station Expansion Project in Boston ("Project"). The Project is intended to help facilitate the expansion of inter-city and high-speed rail service into South Station, and to improve existing rail operations and service delivery at South Station currently provided by Amtrak and the MBTA. This is a goal with broad-based support and Harvard is among those entities that see the importance of this project to our future regional transportation network, upon which all major employers such as Harvard depend, now and for the future.

The Project as described in the ENF includes not only the proposed expansion of the South Station rail terminal facilities, including new tracks and platforms, pedestrian amenities and concourses, as well as the proposed relocation of the adjacent United States Postal Service General Mail Facility, but also the development of one or more additional train layover facilities to accommodate existing and future commuter rail operations of the MBTA. Three layover facility site possibilities are identified in the ENF, one of which is a portion of Beacon Park Yard in the Allston neighborhood of Boston. Harvard owns the fee title to Beacon Park Yard, having acquired it in 2003 from the Massachusetts Turnpike Authority, but the property is encumbered by a perpetual exclusive railroad easement held by CSX Transportation ("CSXT").

Harvard's comments relate in large part to the reference in the ENF to potential roles that the Harvard-owned land at Beacon Park Yard might play in addressing long-term MBTA needs for additional layover facilities, the need for which may emerge based upon projections contained in the ENF for the present through the year 2040. We write to urge that the MEPA Office require MassDOT to review in depth, the underlying assumptions upon which Beacon Park Yard has been included as a potential layover facility alternative, and balance the options available to accommodate those needs with the very unique contribution that Beacon Park Yard could play in both helping to address other transportation challenges such as the Massachusetts Turnpike viaduct in Allston, and in fostering economic development at this gateway location. These opportunities could be foreclosed by the location of a permanent layover facility there. We believe that there is an opportunity to strike an appropriate balance. As further discussed in these comments, we believe the ENF falls short of this goal but offer below some suggestions for further analysis and consideration in the Draft Environmental Impact Report. N-05.1

II. **ENF Comments**. Harvard acknowledges that upgrading the state's transportation infrastructure is also a strategic priority for the State, particularly rail service and the infrastructure supporting it, as outlined in the 2010 "Massachusetts State Rail Plan" and the

September 2012 document "Report of Progress: Transforming the Rail Network for Economic and Community Development." As noted above, the focus of Harvard's comments is on the ENF's needs and site alternative analyses regarding potential layover facilities, including the description and evaluation of Beacon Park Yard as a potential site for a new layover facility. Harvard seeks a more rigorous analysis of the actual and future needs for layover facilities, including the operational growth and service needs undergirding the layover facility needs projected, and the relative merits of the myriad alternative layup/layover sites identified by MassDOT in the ENF (including those eliminated from further consideration). This more thorough site alternatives analysis should take into account numerous significant factors pertaining to Beacon Park Yard that were omitted and/or insufficiently addressed in the ENF. N-05.2 N-05.3

Furthermore, Harvard recommends that the South Station Expansion Project and the layup/layover project be analyzed separately. These two projects are not interdependent and are appropriately treated as separable. The expansion of South Station is clearly desirable with or without increased layover, so is in no way reliant upon achieving increased layover/layup capacity. Further, as set forth in the ENF, the MBTA already has a shortage of layover tracks, and over the long-term (denoted as the years 2025 and 2040 in the ENF), the MBTA will need additional layover capacity whether or not the South Station expansion project proceeds. N-05.4

A. Layover/Layup Analysis. There are numerous aspects of the layover/layup analysis set forth in the ENF which merit further consideration, correction or additional analysis. While layup/layover is a normal activity of current rail operations, it is not inherently desirable, as it wastes energy and generates unnecessary air pollution in non-passenger-carrying equipment repositioning moves. One of the advantages of introducing diesel multiple unit trains ("DMU's") services to replace some commuter rail service, and to expand service frequency in denser markets, is that DMU service is less reliant on layup/layover movements, because it tends to run continual service more like rapid transit. N-5.5

1. Growth Forecasts and Relationship to Service Plans. For the reasons that follow, the ENF's layup/layover needs analysis appears to overstate significantly the projected need for layup/layover in the future. The forecasts in the ENF use commuter rail passenger growth rates for 2040 that are significantly higher than historic growth rates and as noted below, do not address the use of DMU's in either 2025 or 2040. Without this more thorough analysis, the environmental and other impacts of various layup/layover scenarios cannot be accurately identified and evaluated. N-05.6

In addition, assumptions in the ENF about future Amtrak service requirements appear to contradict statements about the capacity of the Amtrak Southampton Street Yard site to accommodate layover of eight-car consists. The 2040 estimates in particular represent a significant increase in the carrying capacity of the commuter rail system that is not tied to any regional forecasts of commuter rail demand – which may result in a significant overstatement of the layover need for 2040. In addition, by requiring the accommodation of all 8-car consists, MassDOT has eliminated the potential to use all of Amtrak's Southampton Street Yard, where four consists of 7-car trains could layover, and Amtrak's Front Yard, where three 6-car consists could layover. The MEPA Office should require MassDOT to provide in the DEIR, information about passenger growth increases between 1990 and 2010 and relate them to the growth rate used for the MBTA's estimate of the layover capacity it needs in 2040. In addition, the 2040 N-05.7 N-05.8

estimate should be supported by well-documented regional forecasts for commuter rail service. We note as well that the layup/layover needs analysis has been presented without reference to existing or proposed future service plans of the MBTA. One result of the absence of this analysis is that the layover facilities analysis does not address the operational efficiencies that can be achieved by siting layover facilities in proximity to planned expansions of commuter rail services. N-05.8 (cont.)

In sum, a more thorough needs analysis very well may demonstrate that the need for layup/layover is less than the ENF suggests and therefore, that the overall environmental and other impacts of such facilities may be reduced.

2. DMU's. The Governor, the Secretary of Transportation, and the MBTA have publicly announced intentions to study the future use of DMU's on the Fairmount Line and on other commuter lines to provide more flexibility to respond to passenger service needs and achieve increased efficiencies in the MBTA's service operations. DMU's represent the kind of "alternative technology" which the MBTA seeks to implement system-wide (see Attachment A of the ENF at p. 7, which says that "MassDOT will consider the layover and service needs of vehicle types beyond those in the MBTA fleet . . ."). N-05.9

As noted above, DMU's generate far less layover/layup needs than the trains currently used in MBTA commuter rail service. In addition, DMU's are also more environmentally-friendly because they can be readily switched off when not in use, while diesel service commuter trains will idle when laying over (causing air pollution effects that should be studied in the DEIR, as discussed below). The ENF does not refer to any analysis of how the MBTA's planned introduction of DMU's for commuter service use would decrease the MBTA's future layover needs. Hence, not having taken into account the use of DMU's, the ENF likely overstates future layup/layover needs and therefore provides an insufficient basis for assessing environmental and other impacts and making locational choices.

B. Competing MassDOT Transportation Priorities. The analysis of Beacon Park Yard as a potential site for a layover facility should take into account a number of other important State transportation priorities that also require the usage of significant portions of Beacon Park Yard and that are not addressed in the ENF. Without considering these other transportation priorities, the environmental and other impacts of siting a layover facility at Beacon Park Yard cannot be adequately evaluated. N-05.10

1. MassPike Reconstruction. The ENF does not discuss one of the most pressing infrastructure priorities on MassDOT's agenda: the urgent need to reconstruct the Mass. Turnpike Allston viaduct and interchange, which MassDOT has publicly discussed as needing near-term attention. The ENF does not discuss the effect of siting a substantial layover facility in Beacon Park Yard on either the permanent design of the reconstructed Turnpike (whether elevated as at present or in an at-grade configuration), or on the ability of MassDOT to use areas of Beacon Park Yard for necessary construction staging and materials storage purposes. We understand that this urgently-needed reconstruction work will have to be undertaken in the near-term; by contrast, the MBTA's short-term layover need is for only three consists and the ENF sets forth long-term layover needs (27 year projections) which, as discussed in this comment N-05.10a

letter, may be substantially overstated. We further understand that these Mass. Turnpike improvements will have beneficial public safety and environmental impacts.

Harvard has assumed that significant portions of Beacon Park Yard will be required on an interim basis to support the Mass. Turnpike reconstruction work. Harvard also recognizes that there is an urgent need to minimize the impact of construction disruption on the surrounding communities and the area's regional and local roadway network. As a result, we are committed to reaching mutually-agreeable arrangements with MassDOT to address this fundamental transportation and public safety issue (subject to CSXT's on-going rights in Beacon Park Yard, as discussed below). Given that substantially the same land parcels are involved with reconstruction and repair of the Mass. Turnpike, an operational analysis and construction staging plan for the Mass. Turnpike reconstruction work must be part of any analysis of the use of Beacon Park Yard for layover uses. N-05.10.a (cont.)

2. Electronic Tolling. Governor Patrick and MassDOT have publicly announced the State's intention to implement electronic tolling along the Mass. Turnpike in the near term future, and this cannot be accomplished at the Allston toll location without the reconstruction or replacement of the Allston interchange/viaduct as discussed above. Electronic tolling will require straightening out segments of the Mass. Turnpike adjacent to Beacon Park Yard, a reality not reflected in the ENF. This straightening will compete with the need to expand the land available for passenger rail facility expansion within a constrained space. Thus, the revised design of this portion of the Mass. Turnpike should be considered in evaluating the viability of Beacon Park Yard as a layover facility. N-05.10b

3. Street System Improvements. The ENF also does not consider street system improvements that are needed in and around Beacon Park Yard to improve permanently, one of Boston's worst intersections – the confluence of the Mass. Turnpike Allston ramp, Cambridge Street, and a service drive with Soldiers Field Road and its adjacent service road. In addition, the current condition of the two 50± year old Cambridge Street bridges, over the Mass. Turnpike itself and over Mass. Turnpike off ramps, is poor. Reconstruction or replacement of these bridges is urgently needed. Further, as part of the on-going transportation planning work Harvard has undertaken subsequent to its acquisition of Beacon Park Yard a decade ago, Harvard has engaged in discussions with public agency officials and stakeholders about the need to create a viable street system in this area. The potential for planning and developing this series of new and reconfigured streets may be jeopardized if the heart of Beacon Park Yard is to be permanently utilized as an MBTA layover facility. The siting of a permanent layover facility in Beacon Park Yard must be evaluated against these transportation system needs. N-05.10c

4. Expansion of Rail Track Service. There is a need to replace the single track-constrained Boston Main Line with a multi-track layout in order to provide adequately for a multitude of objectives, including (i) expanded commuter rail service, (ii) the introduction of DMU service, and (iii) the introduction of inter-city Amtrak service on the inland route. This must be accomplished in a manner that is well-integrated during the construction period for the Mass. Turnpike reconstruction work, *i.e.*, in a manner that maintains rail access to South Station and addresses rail operations on the Grand Junction rail line. N-05.10d

In sum, Harvard believes that the possibility of a substantial MBTA layover facility in Beacon Park Yard should be evaluated in the DEIR against the importance of advancing each of the above-outlined transportation initiatives; we believe that such evaluation should give priority to the public safety needs reflected in the reconstruction of both the rail track layout and the Mass. Turnpike in an integrated and timely manner.

C. Existing Rights in Beacon Park Yard. The ENF does not present a complete or accurate picture of (i) the MBTA and MassDOT rights in Beacon Park Yard; (ii) the rights of CSXT in Beacon Park Yard, or (iii) Harvard's ownership of and rights in Beacon Park Yard. N-05.11

1. Existing MassDOT Easement Rights. In 2003, in connection with the sale of Beacon Park Yard by the Massachusetts Turnpike Authority (MassDOT's predecessor-in-interest) to Harvard, Harvard was asked to enter into certain agreements that would (i) give the MBTA certain future easement rights for limited layup/layover purposes at Beacon Park Yard, and (ii) give the Executive Office of Transportation and Construction (also a predecessor-in-interest to MassDOT), the right to purchase an easement for freight functions to and from the Port of Boston. These easement rights were put into place in recognition of the constraint imposed upon rail service by having a single Boston Main Line track because of Mass. Turnpike construction in the late 1950's, as a result of which service to Allston and Brighton was eliminated and inter-city passenger rail service and commuter service to the west were severely restricted. In order to assist the State in addressing these inadequacies, Harvard agreed to provide MBTA with an easement to expand its track layout to a multi-track layout, while retaining the right to develop over and under that rail easement.

In recognition of CSXT's existing perpetual rights in Beacon Park Yard, as discussed below, the MBTA Easement Agreement does not afford the MBTA any current rights to occupy any portion of Beacon Park Yard (whether for layover purposes or otherwise). Similarly, the MassDOT Option Agreement does not afford MassDOT any current rights to occupy any portion of Beacon Park Yard; rather, it grants MassDOT an option to purchase a future easement related to future (currently non-existent) freight rail usage of Beacon Park Yard to service the Port of Boston only -- and not passenger rail purposes of any kind.

In addition, the MassDOT Easement Agreement does not provide for the construction of inspection areas and related structures (such as a building containing operating department office space, storage areas, crew accommodation facilities, etc.), a power substation, and other facilities that are enumerated in MassDOT's own guidelines for a layover facility contained in the Layover Facility Alternatives Analysis section of the ENF.

Thus, the ENF does not accurately describe the currently inoperative rights of the MBTA and MassDOT in Beacon Park Yard. Further, such rights would be triggered by events that are not within the control of the State or Harvard, as they relate to CSXT's future operations at Beacon Park Yard, as discussed below. It is simply inaccurate to state, as set forth on page 48 of the Layover Facilities Alternatives Analysis, that "no property acquisitions are required." Therefore, the ENF does not make clear that lack of available space and potential acquisition costs should be considered in assessing the viability of the Beacon Park Yard site.

In addition, (i) the area of the MBTA Easement Agreement future layover rights is far smaller in size than the 22.4 acre figure presented repeatedly in the ENF, and (ii) the estimates for the MBTA layover capacity appear overstated due to the inaccuracy of measurements of the MBTA and MassDOT future easement areas. In presenting an incomplete and inaccurate picture of the MBTA and MassDOT future rights at Beacon Park Yard, the ENF therefore does not evaluate the viability of Beacon Park Yard accurately in relation to other alternative locations. N-05.11 (cont.)

2. CSXT Rights. CSXT has a perpetual easement covering the existing Boston "Main Line" as well as easement rights in the majority of Beacon Park Yard. The broad extent of these easement rights, and their practical effect on the operation of and development at Beacon Park Yard, is not discussed in the ENF. In addition, even after CSXT's relocation of certain of its operations at Beacon Park Yard westerly, as discussed in the ENF, it is Harvard's understanding that CSXT will continue to provide freight access to Chelsea, and thus will require continued use of the Main Line and Grand Junction rail track, as well as related operations at Beacon Park Yard. The ENF does not discuss how the proposed layup/layover facility would operate in tandem with on-going CSXT rights and operations at Beacon Park Yard. N-05.12

3. Harvard's Reserved Rights. In the MBTA Easement Agreement and MassDOT Option Agreement described above, Harvard reserved the right to undertake development both above and below the future MBTA and MassDOT easement areas. The ENF does not reference these reserved rights of Harvard, or the impact of the proposed layover facility on development of the remainder of Beacon Park Yard. Harvard acquired a fee title interest in Beacon Park Yard subject to the CSXT easement rights described below. As CSXT relocates its intermodal and other rail operations out of Beacon Park Yard, the development potential of Beacon Park Yard can be more fully realized. However, the construction of a substantial layover facility would not only require the negotiation of material changes to the existing MBTA Easement Agreement, it would also severely impair the ultimate developability of Beacon Park Yard for uses consistent with the surrounding institutional and residential areas. It is also inconsistent with the September 2012 Report of Progress from Lt. Governor Murray's office, which stated at page 2 that the relocation of CSXT intermodal and related operations out of Beacon Park Yard, which has been coordinated with MassDOT bridge raising work from the New York border to Worcester, would allow for the redevelopment of Beacon Park Yard, "… an 80+ acre parcel along the Charles River to serve as a new gateway district for the city." That report further discusses Beacon Park Yard as a potential site for "transformative redevelopment" at page 7. N-05.13 N-05.14

D. Additional Considerations. There are other related issues which merit analysis, as listed below. Harvard believes that the South Station expansion project and the layup/layover facilities projects should be addressed in separate DEIR's, so that the critical safety and functional rail and highway issues outlined above and the matters listed below can be addressed expeditiously, and not delayed by the MEPA environmental review process for the South Station expansion project.

1. Impacts on Amtrak Inter-city Service. The DEIR analysis of the potential layup/layover alternatives should address the potential delays to Amtrak services that will likely be caused by layover operations within Beacon Park Yard. The utilization of Beacon Park Yard as a layup/layover facility will route additional rail traffic through the most heavily congested section of the MBTA's rail system – the Back Bay/South Station corridor, where Amtrak's Acela service, Northeast Regional Service, and MBTA commuter rail are competing for very limited N-05.15

track space, and the growth in passenger demand described in the ENF has to be accommodated. A Beacon Park Yard layover facility also seems inconsistent with the publicly-stated goal of increasing use of the "inland" inter-city route (*i.e.*, Boston to Worcester, to Springfield, to Hartford, to New York City), because it would increase commuter rail/inter-city passenger rail conflicts. Layover facilities to the south of South Station would not route additional rail service through the South Station/Back Bay choke point, a clear advantage from the standpoint of operations and passengers. The ENF does not take into account this constraint in the evaluation of layover alternatives. N-05.15 (cont.)

The utilization of Beacon Park Yard also would require an upgrade of the signalization system for the South Station/Back Bay corridor; the construction of multi-track service through Beacon Park Yard, and a costly signalization project in and near Beacon Park Yard; none of these necessary infrastructure investments are discussed in the ENF. N-05.16

2. Design Guidelines. As noted above, the design guidelines set forth in the Layup Alternatives Analysis section of the ENF suggest that the additional layover facility/facilities should include ancillary facilities for inspection and maintenance functions. The creation of these facilities at Beacon Park Yard would require acquisition of additional property interests by the MBTA, as would the creation of the layover facility as outlined in the ENF. To the extent that competing transportation and economic development priorities are taken into account, these ancillary facilities likely would not be feasible. N-05.17

3. Consistency with Area Plans and Development. The ENF suggests that the use of Beacon Park Yard is consistent with both City plans for the area and area zoning. A closer look at the applicable zoning provisions of the Boston Zoning Code (*i.e.*, Article 51) and with recent patterns of area development suggests otherwise. N-05.18

Article 51 was promulgated in 1991, more than two decades ago, when CSXT operations at Beacon Park Yard were far more robust and active than is currently the case. (As noted above, CSXT is relocating many of its operations at Beacon Park Yard to new facilities to the west.) As a result of CSXT's then-existing operations in 1991, rail freight terminals are permitted uses in the Allston South Landing Economic Development Area, in which Beacon Park Yard is located. However, MassDOT has not proposed a rail freight terminal of the sort that CSXT has traditionally operated at this location; rather, MassDOT proposes a passenger rail storage facility at which as many as 30 complete trains (consists) will be stored and maintained. Article 51 does not permit rail storage yards. In addition, it is not clear that the layover facility could meet the environmental performance standards applicable to the Allston South Landing EDA, as set forth in Section 51-25 of the Boston Zoning Code, because of the proximity of residential uses to the south of Beacon Park Yard. In addition, the recent pattern of development in the area has been residential reinvestment and institutional investment, not industrial or rail investment.

4. West Station/Commuter Rail Service. The creation of a passenger rail service station at Beacon Park Yard would be a valuable means of connecting commuters from the west to employment nodes in Boston and Cambridge. This long-term regional transportation improvement is not discussed in the ENF, and the use of Beacon Park Yard for a significant layover facility could render the creation of a "West Station" infeasible. N-05.19

5. Air Pollution Analysis. The layover of as many as 30 consists (the ENF's 2040 projection) at Beacon Park Yard could adversely affect air quality for nearby institutional residents and neighborhood residents, as well as for users of the Charles River pedestrian/bicycle path. The MEPA Office should require MassDOT to undertake the same rigorous level of air quality analysis on the proposed layover facility at Beacon Park Yard as MassDOT will undertake in connection with the South Station expansion. In addition, MassDOT should indicate whether it will use Auxiliary Power Units at Beacon Park Yard, as it currently does at Readville Yard 2 (see Attachment C, p. 12). N-05.20

6. Acquisition Costs. The ENF does not make clear that as with a number of other potential layover facility alternatives eliminated in MassDOT's Phase I analysis, the creation of a permanent 22.4 acre layover facility at Beacon Park Yard likely would involve significant acquisition costs. N-05.21

III. Conclusion. Harvard recommends that the MEPA Office require MassDOT to examine all of the foregoing issues thoroughly and completely during the MEPA environmental review process. Consistent with Harvard's view that the South Station expansion project and the layover facilities project are severable, and consistent with the State's stated priorities for the highway reconstruction and rail expansion projects discussed in Section II.B of this comment letter, Harvard recommends that separate DEIR's be prepared for each of the South Station and layover/layup facilities projects.

c/o Peter Pan Bus Lines, Inc.
PO Box 1776
Springfield MA **01102**
(413) 781-2900 x1328

Vio electronic mail-hard copy to follow USPS

April 9, 2013

Richard K. Sullivan, Jr.
Secretary, Executive Office of Energy and Environmental Affairs
100 Cambridge Street - Suite 900
Boston MA 02114

RE: EEA # 15028 — Sooth Station Expansion Project

ATTN: Holly Johnson, MEPÂ Analyst

Dear Secretary Sullivan:

I am writing regarding the Environmental Notification Form (ENFj filed by the Massachusetts Department of Transportation (MassDQT) far the above-captioned project. These comments are being submitted on behalf of the Massachusetts Bus Association (MassBus) and its member companies that provide public transportation bus services to the South Station Bus Terminal (SSBT): C&J lines. Concord Coach Lines, DATTCO, Greyhound Lines, Peter Pan Bus Lines, and Plymouth **8**i Brockton Street Raiiway (SSBT carriers).

We were surprised and disappointed that the **ENF barely acknowledged the existence of** the **bus terminal next door, and did not include the full build out of bus gate space and weather-protected pedestrian connections to the train terminal.** We believe the inclusion of these vital components should be an EIS requirement of EOEEA, to maximize Intermoda! transportation benefits of the expansion project, fulfill 'Green DOT' policy goals, and relieve the current chronicshortage of **gate** space at the facility.

N-06.1

When the SSBT opened, it had only half of the gate space as originally designed and did not include the so-called people mover/moving sidewalk as originally designed. The building has remained incomplete since it opened, and fails to foster intermodal transportation movements. Passengers arriving to the SSBT from the Red Line, Silver Line, or train station must brave the elements and pass through 'temporary' scaffolding with a 'temporary' wooden and porous ceiling, intermodal access to the SSBT building for passengers with disabilities and those with luggage is difficult, and not consistent with good policy for intermoda! transit usage. N-06.1 (cont.)

Prior to the SSBT opening, intercity bus services were located in three separate terminals and numerous street curb locations with over twice the gate space that exists today. Much like the train track' expansion to restore the capacity that was in piace in the past, an expansion of the SSBT will restore the gate space that used to exist in Boston. The lack of adequate space today causes buses arriving at the SSBT to circle around the termina! *2* and 3 times, in search for an open gate and causing extra fuel use and additional emissions. Other carriers are continuing to use curbside street loading outside the terminal, contributing to congestion on city streets. According to a recent CTPS study, on a busy day in October 2012, the SSBT terminal had 17,000 passenger embarkations, and normally handles 4,000 buses a week.

The ENF alludes to some unspecified impact on the bus ramps. We would request and expect more detail on these impacts on the ramps providing access to and from the SSBT. N-06.2

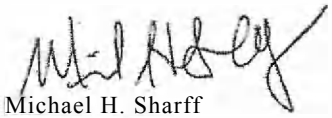
The ENF addresses commuter rail, Amtrak rail, high-speed rail, expanded bicycle rental facilities, and improved pedestrian and MBTA bus service along Dorchester Avenue. A glaring omission is the SSBT, and the significant intermodal role commuter, regional, intrastate, and interstate buses play at the South Station complex. N-06.3

Since the SSBT opened 20 years ago, tenant bus companies have been raising these issues. We've been repeatedly told the development above the terminal is just about to happen, and the developer would be building the expanded bus terminal. We now understand the designated developer has requested yet another time extension for the air rights project. The bus services at the SSBT are public transportation services, and make the entire intermodal system work, and as such, the SSBT expansion deserves attention and resources available during the South Station expansion project.

The intermodal system and bus passengers deserve a completed SSBT,

Sincerely,

MASSACHUSETTS BUS ASSOCIATION



Michael H. Sharff
Director

CC: SecretaryRichardDavey

SOUTH STATION
EXPANSION

massDOT
Massachusetts Department of Transportation

Scoping Session - April 1, 2013

Comments on the Environmental Notification Form

Comments on the South Station Expansion project may be submitted by mail, fax, or email until **April 9.**

Name: James RePass, Chairman & CEO, National Corridors Inc.

Address/Email: [illegible]ss@gmail.com

Please provide your comments below (use the reverse side for additional space).

Secretary Sullivan:

Thank you for scheduling this scoping session on the SSX.

I [illegible] the [illegible] must be N-07.1

interpreted to allow full evaluation of

[illegible] new tracks, underground [illegible]

[illegible] surface [illegible]

[illegible] MEPA and [illegible]

Alternatives Analysis requirements, and

[illegible]

[illegible] to pursue project

whatever means necessary.

You may leave this comment sheet with project staff at the door or mail it to:

Secretary Richard K. Sullivan, Jr., Executive Office of Energy and Environmental Affairs,
MEPA Office, Attn.: Holly Johnson, MEPA Analyst, EEA# 15028
100 Cambridge Street, Suite 900, Boston, MA 02114
Fax: 617-626-1181, Email: Holly.SJohnson@state.ma.us

Sierra Club
FOUNDED 1892
Massachusetts Chapter

April 9, 2013

Secretary Richard IC Sullivan
Executive Office of Energy & Environmental Affairs
MEPA Office
Attention: Holly Johnson - MEPA Analyst
EEA# 15028
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Sullivan:

I am writing on behalf of the Massachusetts Chapter of the Sierra Club in response to the South Station Expansion Project Environmental Notification Form. While there are some aspects of the proposal that we find of merit—most notably, the reopening of the Dorchester Avenue bridge to the public to better link Downtown with South Boston, and the associated rebuilding of the adjacent streetscape and the extension of the Harborwalk along Fort Point Channel—we believe the overall project to be fundamentally flawed by its basic design assumptions, rendering it incapable of providing a permanent solution to the problem of the Station's congestion so long as it remains a stub-end terminal. N-08.1 N-08 2

South Station was last expanded in the mid 1990s with the addition of several tracks and platforms to accommodate new commuter rail services to the South Shore and Worcester. Nearly two decades later, the Commonwealth is planning to increase yet again the capacity of this busy terminal by taking the South Postal Annex and putting at least seven more tracks on its site ("An $850m plan to return South Station to bygone glory," 2/23/13 Boston Globe). At its Public Scoping Session on April 1, MassDOT described the project as "[a] rare chance to remove a major chokepoint and unlock greater regional mobility and growth."

Almost completely absent from these plans, however, is any recognition that building yet more dead-end tracks into South Station is a temporary solution, at best, and will likely be eclipsed again in a couple more decades by the anticipated growth in passenger traffic. Instead, MassDOT should revisit its long-shelved plans for a direct rail connection between South and North Stations—a DEIS for the Rail Link was completed in June 2003 and immediately dropped by the Romney administration—that would allow for the through running of Amtrak and commuter trains without the wasteful backup moves that are now a major cause of congestion at both terminals. A first step would be to put the new South Station platforms underground, allowing the tracks to be extended north at a later date. N-08.3

One of the more disturbing aspects of this project is the plan to build a layover yard to hold and service the MBTA's commuter train sets, a location where idling diesel locomotives would spew pollution into the adjacent neighborhoods. After examining 28 sites for this facility, the ENF has narrowed the options to three locations: the Boston Transportation Department Tow Lot in the city's Newmarket neighborhood, Beacon Park Yard in Allston, and Readville-Yard 2 at Boston's southernmost point. Of these, only the Tow Lot location is anywhere close to downtown, meaning that trains may be deadheading back and forth for a distance of up to nine miles each way, showering yet more fumes and particulates on the city's residents. At the very least, the MBTA should reconsider its decision several years ago not to |^_gg 4 N-08.5

10 Milk Street Suite 632 Boston MA 02108 tel: 617.423.5775 fax: 617.423.5858 www.sierraclubmass.org

electrify its commuter rail lines, which would reduce air pollution along its lines—most particularly around the proposed layover facility.

N-08.5 (cont.)

Additionally, the current plan would fail to provide benefits two other key constituencies: travelers coming from the north via both the commuter rail system and the Downeaster from Maine, and riders on the MBTA's central subway system. Running through commuter and Amtrak trains would provide better distribution of passengers coming into Boston and relieve pressure on our overstressed subway lines, especially on the Orange Line.

N-08.6

Construction of the North-South Rail Link would serve as a more lasting solution to the capacity constraints to the addition of more traffic to South (and North) Stations, unifying the city's two passenger rail systems into a more coherent whole and providing for the more efficient distribution of riders throughout the downtown core—especially if an intermediate station is also built close to the State Street financial district and the adjacent tourist attractions of Faneuil Hall Marketplace and the Freedom Trail. While state officials have publicly stated that the South Station expansion plan would do nothing to preclude the eventual construction of the Rail Link, its Ç850 million price tag is a most costly temporary "solution" that might prevent the underground connection from ever being built. We can do better than that!

Sincerely,

John Kyper, Transportation Chair
Sierra Club, Massachusetts Chapter

SOUTH BOSTON SEAPORT TMA
TRANSPORTATION MANAGEMENT ASSOCIATION

FACSIMILE TRANSMITTAL SHEET

TO: Holly Johnson	**FROM:** LAUREN GRYMEK
COMPANY: MEPA Office	**DATE:** April 9, 2013
FAX NUMBER: 617-626-1181	**NO. of PAGES INCL. COVER:** 4
PHONE NUMBER:	**SENDER'S REFERENCE NUMBER:**
RE: Comment Letter on EEA# 15028	**YOUR REFERENCE NUMBER:**

☐ URGENT **X FOR REVIEW** ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

Enclosed please find a three-page comment letter for MassDOT's Environmental Notification Form for its proposed South Station Expansion Project. Please call me at 617-385-5510 with any questions.

Thank you,

Lauren Grymek

RECEIVED
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MEPA

200 SEAPORT BOULEVARD * Z1A * BOSTON, MASSACHUSETTS 02210
PHONE: (617) 385-5510
FAX: (617) 385-1788

SOUTH BOSTON ,J

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April 9, 2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
MEPA Office
Attn.: Holly Johnson, MEPA Analyst
EEA# 15028
100 Cambridge Street
Boston, MA 02114

Dear Secretary Sullivan:

The South Boston Seaport Transportation Management Association (Seaport TMA) is a non-profit consortium of 30 employers, businesses and landowners in the South Boston Waterfront dedicated to reducing traffic congestion and greenhouse gas emissions by promoting alternative transportation options. We are pleased to submit our comments regarding the Massachusetts Department of Transportation's (MassDOT) Environmental Notification Form for the proposed South Station Expansion project.

The Seaport TMA is well acquainted with the South Station Expansion Project, having hosted the MassDOT Project Director, Katherine Fichter at a Seaport TMA membership meeting in December 2012 and most recently attending several business briefings with representatives from the project team and member businesses from the Seaport TMA. Our staff was also represented at the April 1, 2013 public scoping session.

The Seaport TMA's interests in this project include ensuring transportation accessibility, reliability and mobility to, from and within the South Boston Waterfront. In reviewing the Environmental Notification Form (ENF), we offer the following comments:

MBTA Silver Line Waterfront

With its existing service level, the MBTA Silver Line Waterfront is often at capacity during the ^ peak (weekday) commute periods. Seaport TMA members continually express to the Seaport TMA staff that their employees are often "left behind" at South Station in the morning peak or at World Trade Center Station or Courthouse Station in the afternoon peak due to overcrowded conditions on Silver Line vehicles. The Seaport TMA staff and some of our members voiced these concerns in a roundtable discussion with MBTA representatives last month (March 2013) and we are aware that many of the MBTA's subway and bus routes are at capacity during the peak rush hours. However, if the proposed expansion project increases the number of transit passengers connecting with South Station on a daily basis, that will undoubtedly bring some of these passengers onto the Silver Line. Given the current crowding conditions on the Silver Line, we request that part of the transportation analysis in the Draft Environmental Impact Report (DEIR) include projected Silver Line ridership.

-09.1

SOUTH BOSTON

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TRANSPORTATION
MANAGEMENT
ASSOCIATION

Private Shuttle Service

Several employers and office buildings within one mile of South Station provide private shuttle ^ service as a “last mile” connection to and from the station, and locations throughout the South Boston Waterfront and Fort Point. Although these services are not open to the public, they are free to the constituents whom they are intended and provide convenient connections that would not otherwise exist to bus, commuter rail, subway and train service. These shuttle services make it more convenient and efficient for the shuttle riders to access their work locations, further encouraging the use of public transit The transportation analysis should consider these shuttle services and incorporate a designated “shuttle stop" within the South Station project area. Currently there is a small stop designated by the City of Boston on Summer Street westbound adjacent to the Federal Reserve Bank, forcing shuttle riders to have to cross the street from the South Station Commuter Rail Platform and Bus Terminal areas. The Seaport TMA believes the expansion project has an opportunity to incorporate a designated shuttle stop around the perimeter of South Station in such a way that shuttle riders going to and from a shuttle service and the Station "would not have to cross traffic on Summer Street,

-09.2

Dorchester Avenue Improvements

The Seaport TMA supports the proposed improvements to Dorchester Avenue that include its j opening up for public use, especially for pedestrians and bicyclists. We believe that doing so will encourage more employees and visitors to walk between Broadway Station and the Fort Point neighborhood.

-09.3

We also believe that the opening of Dorchester Avenue can benefit vehicles, and want the DEIR ^ to reflect both the projected vehicular and pedestrian traffic counts at the intersections of Dorchester Avenue and Summer Street; Dorchester Avenue and West Second Street; and Dorchester Avenue at West Broadway.

-09.4

Since the P&G Gillette manufacturing facility’s employee parking lot is adjacent to Dorchester Avenue (near the intersection of West Second Street) the analysis should look at traffic volumes in this location as well. Between 750 and 1,000 employee vehicles access the P&G parking lot from Dorchester Avenue on a daily basis. Under existing conditions, these vehicles entering and existing the P&G employee parking lot do not have to contend with high volumes of other vehicular traffic.

Harborwalk Construction

As the Seaport TMA encourages walking to and from transit stations, we applaud MassDOT for N including construction of the Harborwalk adjacent to the Fort Point Channel and Dorchester Avenue. In order to ensure the Harborwalk’s long lasting existence and the many public benefits it offers, the DEIR should explicitly state how the Harborwalk will be maintained and cared for once the project’s construction is complete, as well as the long-term source of funding for such maintenance.

-09.5

SOUTH BOSTON
SEAPORT TMA
MANAGEMENT
ASSOCIATION

In closing, the Seaport TMA believes that MassDOT's proposed South Station Expansion project. We recognize that many transportation demand management measures and additional transportation analyses will be outlined in detail in the Environmental Impact Report and we look forward to providing our support to see that those measures are met accordingly. N-09.6

Sincerely,

Lauren Gymek

Executive Director

The Boston Harbor Association
for a clean, alive and accessible Boston Harbor

9 April 2013

^CEIVSD

4Pf? 1 0 2013

MePA

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
ATT: MEPA Office

RE: EOEA No. 15028- Environmental Notification Form
South Station Expansion Project, Boston

Dear Secretary Sullivan:

The Boston Harbor Association, a non-profit, public interest organization founded in 1973 by the League of Women Voters and the Boston Shipping Association to promote a clean, alive, and accessible Boston Harbor, is in receipt of the Environmental Notification Form for the South Station Expansion Project, Boston. With $10 million funding from the Commonwealth of Massachusetts and a $32.5 million grant from the Federal Highway Administration, the Massachusetts Department of Transportation, project proponent, is developing preliminary designs for the expansion and improvement of South Station near Fort Point Channel.

At The Boston Harbor Association's 5 March 2013 Harbor Use Committee meeting and at the 1 April 2013 MEPA Scoping Session, the project proponent provided an overview of the proposed project. It will involve five elements:

—Expansion of South Station terminal, including up to 7 additional tracks and platforms, and a 215,000 sq. ft. new passenger concourse with improved public amenities;
—Acquisition and demolition of the U.S. Postal Service mail facility, providing an additional 16-acres for expansion of South Station;
—Creation of a new HarborWalk along a reopened Dorchester Avenue;
—Possibility of future joint development adjacent to and over an expanded South Station;
—Creation of sufficient rail layover area for existing and future rail needs at an off-site location.

The Boston Harbor Association strongly supports the Commonwealth's efforts to expand jq_io 1 intermodal transportation capabilities at South Station. We believe that this project is an integral element of the Commonwealth's enhanced mass transportation system.

We ask that the following be considered in the Secretary's scope for the Draft Environmental Impact Report:

Permitting process: The elements of this project together create a complex permitting and development scenario, involving not only transportation agencies but also a quasi-federal agency (U.S. Postal Service) as well as unspecified private development

interests. Under Alternative 1, Transportation Improvements Only, not only would the existing South Station Terminal expand approximately 215,000 sq. ft. for passenger services, this alternative would include the acquisition and demolition of the U.S. Postal Service facility on Dorchester Avenue, construction of a HarborWalk, and creation of off-site layover area. Alternative 2 assumes Alternative 1, plus potential future private development that complies with existing state and local regulations such as Chapter 91 regulations and the Fort Point Downtown Municipal Harbor Planning Area requirements. Alternative 3 assumes Alternative 1, plus potential future private development that would be limited only by FAA maximum height limits and would require an amendment to the Municipal Harbor Plan to modify applicable Chapter 91 regulations.

We believe that the ENF outlines the relevant alternatives, from the No Build Alternative to the three alternatives listed above. The analysis in the Draft Environmental Impact Report will provide useful information to residents, nearby community and businesses, and transportation planners. Alternative 3 is the Maximum Build alternative, and will provide "worst case" analysis of localized impacts. We suggest that as part of the No Build Alternative the proponent include analysis of what and when transportation improvements, if any, can be made if the U.S. Postal Service does not relocate from its Dorchester Avenue site. N-10.2

Consistency with the City of Boston's Fort Point Channel Watersheet Activation Plan: N-10.3
The Boston Redevelopment Authority's 2002 Fort Point Channel Watersheet Activation Plan calls for activation of the Seawall Basin of the Fort Point Channel where the U.S. Postal Service is currently located. Consistent with the BRA's Public Realm Plan, the Fort Point Channel Watersheet Activation Plan calls for the development of a pedestrian bridge crossing the Channel to enhance pedestrian access between South Station and the areas to the east of the Channel (page 50, BRA Fort Point Channel Watersheet Activation Plan).

In reference to the U.S. Postal Service Property, the Watersheet Activation Plan states: "The development program will most likely incorporate commercial, cultural, and residential uses. Achieving strengthened pedestrian links between South Station and the Channel represents a key public goal. The potential for creation of a major interior public space (such as a winter garden or public market) that is accessible from the Channel is another major opportunity. Harborwalk in this location should incorporate a variety of public spaces, small and larger that add to the amenity of the Channel" (page 50, Watersheet Activation Plan). Page 27 of the plan shows a "moveable art barge", water trail/interpretive trail, and "floating island" on the watersheet closest to the U.S. Postal Service site.

The draft Environmental Impact Report should include discussion regarding consistency with the BRA's Watersheet Activation Plan, as well as a timetable for implementation following permit approvals.

Waterways and Tidelands Impacts and Permits: The Environmental Notification Form appears confusing in the discussion regarding landlocked tidelands (page 24 of ENF). N-10.4

The proponent responds to the question, "Is the project located on landlocked tidelands?" in the affirmative, but then states that in the existing condition, the South Station site is not located on landlocked tidelands. The form should be corrected to indicate current conditions, as it is not clear whether the U.S. Postal Service will actually move from the site, nor if and when Dorchester Avenue becomes a public way. N-10.4 (cont)

The discussion regarding tidelands indicates that all Build alternatives will improve the public's right to access, use and enjoyment of jurisdictional tidelands, specifically construction of a HarborWalk along Dorchester Avenue. Given the complicated and long-term development timetable anticipated for the site, we ask that the Draft Environmental Impact Report include discussion of how an interim HarborWalk segment can be implemented within 60 days after transfer of the property from the U.S. Postal Service to the proponent. N-10.5

Sustainable development: The South Station Expansion project will provide for additional multi-modal transportation options. We ask that the analysis for each alternative consider possible water transit options at or by South Station, as well as expanded bicycling facilities (in addition to existing bike storage), such as provisions for a shared bicycle program (Hubway or similar program). N-10.6

Alternative 2 calls for up to 470 additional parking spaces, while Alternative 3 calls for up to 1,370 additional parking spaces. We ask that the Secretary's Scope call for further analysis of ways to reduce single passenger vehicular use at the South Station multi-modal facility, including fewer parking spaces and dedication of a significant number of parking spaces for shared-car usage (Zipcar or similar program). N-10.7

Climate action: We ask that the Secretary's Scope require the project proponent to assess in each of the alternatives current climate change vulnerabilities and to identify ways to increase resilience to coastal flooding over time. The Boston Harbor Association's "Preparing for the Rising Tide" report (February, 2013) may be a useful guide in this effort. N-10.8

Thank you for your consideration.

Sincerely,

Vivien Li
President
The Boston Harbor Association

April 9, 2013

Secretary Richard K. Sullivan, jr.
Executive Office of Energy and Environmental Affairs (EEA)
100 Cambridge Street, Suite 900
Boston MA 02114

RE: Comments on the ENF forthe South Station Expansion Plan, Boston, MA
EEA #1 so 28

Dear Secretary Sullivan:

WalkBoston has reviewed the ENF document for this project and offers our comments below.

South Station has been the subject of many studies and proposals, and this is by far the most extensive in terms of expanding the ground-level transportation uses of the terminal. The project will have many possible effects on pedestrian movements to and within the site and the specific walking connections that need the highest level of attention are: N-ll1

- Shifts in pedestrian routes and volumes due to changes and additions to land use at South Station
* Connections between terminal facilities and external destinations
- Connections between indoor waiting areas and the rail platforms
* New access to a reopened Dorchester Avenue and the Fort Point Channel, including extension ofthe Harborwalk

Expansion of the terminal facilities

South Station once included the land covered by the Post Office that is now proposed to be recovered and changed back into a rail transportation facility. At the time that the terminal was in maximum use, the pedestrian ways leading into this portion ofthe track area were connected directly into the station headhouse ticket purchasing and waiting areas. Since the headhouse still exists, the functions of dealing with considerably higher numbers of pedestrians on the site should be relatively easy to accomplish, but pedestrian connections to the track area will need to be re-established. N-ll2

Changes to the site overthe past decades may constrain the ability ofthe station to handle the pedestrian traffic it once handled fairly robustly. These changes include:

- Construction of an office building at the corner of Summer Street and Dorchester Avenue which lies between the proposed new track area and Summer Street and thus obstructs a direct access path for pedestrians onto Summer Street and will require walkers to either exit the station via Dorchester Avenue or walkthrough the existing concourse area that is already serving other rail passengers. N-11.2a
- Proposed construction of an office tower directly above the site, with access to and through the South Station concourse. An office tower will add a substantial volume of pedestrian traffic in the concourse area, where current and future rail passengers wait for their trains. N-ll 2b
- Possible future public/private development above the proposed tracks on the Post Office site will also result in additional pedestrian traffic that will either exit the facility ' N 11,2

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on Dorchester Avenue or walk through the existing concourse area that is already serving rail passengers. N-l 1 2d

• Pedestrian connections between the existing bus terminal and the South Station concourse are at present.somewhat indirect. Should pedestrian paths to and from the bus terminal become directly tied into the concourse area as a part of this project, another considerable volume of pedestrian traffic will be added to the concourse area.

Connections between terminal facilities and external destinations N-ll.3a

• The existing connection between the South Station concourse level and the Red and Silver Line platforms requires a change of level, and focuses on a single set of escalators which are congested during current passenger peak hours. Additional access into the MBTA station may be required as development proceeds and as commuter rail and subway ridership increases.

• Surface pedestrian access between the Summer Street sidewalks and the concourse is not currently congested, but it is all tunneled through the entrance foyer areas of the station -two parallel spaces that may not be adequate to handle increased pedestrian traffic in the future. - .3b

• Pedestrian access between the proposed enlarged terminal and both Dorchester Avenue and Atlantic Avenue should be reviewed in considerations of access to and from the station, and to alleviate pedestrian congestion at the Summer Street access and egress points. N-11.3C

Internal waiting areas and passages leading to rail platforms N-ll 4

The existing South Station concourse is likely to be significantly impacted by any ofthe proposed building options within the station property. People walking to and from the existing and new platforms will need to be accommodated, as will pedestrians to and from the possible air rights developments above the station and the tracks. At the moment, as we understand the proposal, all of these pedestrian movements are on one level, and we are concerned that there may be congestion in the limited floor space.

To accommodate the future pedestrian traffic, planners ofthe development should consider options such as the following:

• Wide passageway connections for pedestrians between the ends ofthe new track area 4a and the existing concourse, the exits and the area leading to existing tracks. N-11.

• An expansion ofthe waiting area in the concourse (toward the tracks) to allow for the additional foot traffic. We are aware that such an expansion would involve changes in the existing window curtain wall between the concourse and the tracks, as wetl as cutting back on trackage, and is thus likely to raise significant issues. N- .

• Mention has been made of a new floor level for pedestrian activities above the level that now serves pedestrians on the concourse. This idea should be pursued to see if n_h .4C improvements for pedestrians can be found.

• Provision of pedestrian passages beneath the present floor level ofthe concourse to and from the MBTA station to distribute intermodal pedestrian traffic more effectively. N-11.4d

Restoration of public access to Dorchester Avenue and the Fort Point Channel

We are very pleased that Dorchester Avenue may be reopened and restored to public use. N-l 1.5 The extension of the Harbor Walk made possible by this change will add important new connections to the walking network.

The need for data on pedestrian movements

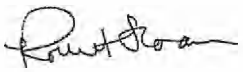
N-11.6

- It is essential to have data on the existing pedestrian flows into and through the station as a basis for evaluation of proposals. We request that pedestrian counts and projections of walking traffic in all parts ofthe proposed terminal be included in upcoming work on the project.

We appreciate your consideration of our comments and your responses to them.

Please feel free to contact WalkBoston with questions you may have.

Sincerely,



Robert Sloane
Senior Project Manager

Johnson, Holly (EEA)

From: Brad Bellows [bellows@bradbellows.com]
Sent: Monday, April 08, 2013 3:47 PM
To: Johnson, Holly (EEA)
Subject: SSX **ENF** Comments
Attachments: SSX Comments-4.8.13.pdf

Ms. Johnson,

I have attached comments on the South Station Expansion project, some of which I was able to present during the public scoping meeting held last week. I would be grateful if you would relay these to the Secretary and add them to the public record.

In my comments, I address deficiencies in the cost / benefit analyses that were done (and not done) for the North South Rail Link. In my view, given the cost of the current project, and the fact that it will displace an alternative with substantially greater benefit, approval should not be granted without verifying that the prior economic analyses were proper and complete. In the opinion of many informed observers, including the Chairs of the Citizen's Advisory Committee and former Governor Michael Dukakis, they were not. N.12.1

I would be delighted to provide the Secretary or staff with additional documentation on this subject in whatever form would be most convenient.

Respectfully,

Brad Bellows

Brad Bellows Architects
87 Howard Street
Cambridge MA 02139
617-661-4500

Member, Citizen's Advisory Committee for the North South Rail Link (1996-2003)
Member, Central Artery Rail Link Task Force (1993)

Brad Bellows Architects B7 Howard Street Cambridge MA02139 tel: 617.661.4500

April 8, 2013

Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
Attn. Holly Johnson, MEPA Analyst
100 Cambridge Street Suite 900
Boston MA 02114

re: South Station Expansion Project (EEA#15Q28)

Dear Secretary Sullivan,

While I commend Governor Patrick for recognizing the vital role that improved commuter rail service must play if we are to create sustainable economic growth, I regret that the current plan for South Station expansion will, if implemented, ultimately compromise this goal. Yes, the expansion of surface tracks will address a very real and immediate capacity issue, and allow modest increases in rail service, but those surface tracks and additional platforms would not be needed if our rail service were properly integrated, with run-through service, just as they are not needed in our rapid transit stations, which serve far more people. N-12.1a

Large parking lots for trains are an obsolete artifact of the piecemeal way in which our rail system was built, by private companies, each serving a specific market, with no regard for regional integration. We inherited this system and have not improved it in a hundred years. Expanding South Station may restore part of what we have allowed to actually erode, but it certainly will not give us the twenty-first century system we need. If short-term expansion was inexpensive, and bought us a few years to organize a more definitive solution linking North and South Stations, then it might be justified. But, with a price tag approaching a billion dollars, the SSX project clearly represents the final nail in the coffin of any such plans, assuring that we never have the rail service we need. Sometimes "the perfect is the enemy ofthe good", but in this case, a shortsighted solution is the enemy ofthe economically and environmentally necessary. N-12.1b

A bold transportation pian should turn the clock forward, not back to the nineteenth century, as this plan proposes to do. The North South Rail Link Project, studied in the late 1990's and early 2000's, under the shadow of ballooning CAT/P costs, would reduce the need for surface platforms at both South and North Stations, while lowering operating costs and dramatically improving service. By the relatively simple act of linking the assets we already own, it would give us, in one stroke, one of the premier regional rail systems in the world, allowing our commuter rail service to operate much like a rapid transit system, making the greater Boston region vastly more accessible for employers and workers across the region, who are currently suffering the costs of gridlock and will receive only limited relief under the current SSX plan.

There is a widely held misconception that the Rail Link was studied and found to be impractical, on either technical or economic grounds, or perhaps both, in fact, a Peer Review committee, convened in the mid-1990's, composed of senior engineers and project managers with broad international experience, concluded the opposite: that the project was eminently feasible, and could be built at reasonable cost. That this recommendation was ignored says more about the panic that accompanied CAT/P cost overruns, and the inability ofthe sponsoring agency {the MBTA) to contemplate any significant capital investments, than it does about the virtues or feasibility ofthe NSRL Project. In fact, the Rail Link needs to be seen and funded not as a Boston project, or even a Massachusetts project (though of course both will be the greatest beneficiaries of it), but rather as national and New England-wide project, extending Northeast Corridor service to the north of Boston, into Maine, New Hampshire and Vermont. Had Governor Romney taken the lead in forging a regional rail coalition, we might have had a "shovel-ready" project when Stimulus funds were being disbursed a few years ago - but unfortunately this did not occur.

Before we now take the definitive step to massively invest in a short-term solution to our long term needs, we owe it to ourselves to make sure we are not precluding a better and more cost-effective solution. At minimum, this should include a proper Cost / Benefit analysis ofthe North South Rail Link Project - something that was never actually done. Rather, NSRL costs were escalated by layers of "contingency factors", while most ofthe undisputed benefits were never quantified, even when it would have been relatively easy to do so. The cost of South Station expansion, for example, was discussed, but never quantified. The NSRL cost estimates are also significantly at odds with construction costs for other rail projects in the US and around the world. Are we prepared to concede that Massachusetts cannot accomplish what our competitors can? NSRL cost estimates should be verified against current global "best-practices". N-12.1c

Until a proper Cost / Benefit analysis has been done, it is highly irresponsible to commit public funds to any alternative plan that provides significantly fewer benefits. Now that the true cost of adding surface platforms at South Station has been established, the advantages of an underground link will only be more compelling. The time has come to cut our Gordian Knot, not enlarge it.

Respectfully,

Bradley S Bellows

Brad Bellows
Architect
Member Citizens Advisory Committee for the North South Rail Link, 1996-2003
Member, Central Artery Task Force, 1993

Johnson, Holty (EEA)

From: Ellen Altman [ebaltman@hotmail.com]
Sent: Thursday, April 04, 2013 2:26 PM
To: Johnson, Holty (EEA)
Subject: Comments on South Station Expansion

To Holly Johnson and All Parties Concerned:

I attended the meeting on Monday afternoon at 1 South Station. I am a resident of Fort Port Channel neighborhood, a painter and an architect and have these comments:

1. It seems clear that the expansion of South Station needs to go head in hand with the link between South and North Stations, (it is also clear that the neglect to do the link during the Big Dig was a serious mistake.) The link must be done now, though the challenges of doing it are great I realize. N-13.1

2. Has their been any consideration of climate change and the rise of the sea level as it impacts the rail lines? The rampant development of the waterfront conveniently ignores this issue- consider the results of rail lines, old or new, at South Station going underwater..... N-13.2

3. The harborwalk image that was shown at the meeting was woefully inadequate. And the planned uses at that edge, the program mixes, were predictble when there is an opportunity here for more inventive, creative thinking. N13 3

Thank you.

Ellen Altman
300 Smmer Street #45
Boston, MA 02210

SOUTH STATION
EXPANSION

massDOT
Massachusetts Department of Transportation

Scoping Session – April 1, 2013
Comments on the Environmental Notification Form

Comments on the South Station Expansion project may be submitted by mail, fax, or email until **April 9.**

Name: FMR REP. JOHN A BUSINGER

Address/Email: 33 ST PAUL ST BROOKLINE MA 02446 JBUSINGER@GMAIL.COM

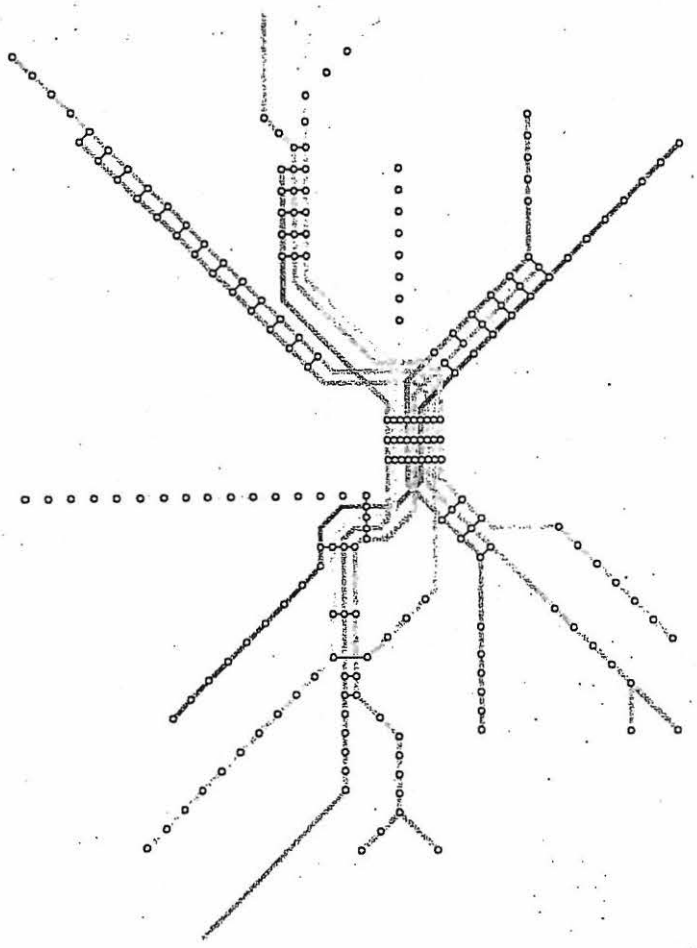
Please provide your comments below (use the reverse side for additional space).

N-14.1

I BELIEVE THIS PROJECT SHOULD NOT GO FORWARD - IT IS AT BEST A TEMPORARY FIX ON THE SOUTHSIDE COMMUTER RAIL SYSTEM AND DOES NOT AT ALL SOLVE THE NORTHEAST CORRIDOR CAPACITY PROBLEM CREATED BY A STUB-END AT SOUTH STATION — FORMER GOV MIKE DUKAKIS CALLS THIS PROJECT "IRRELEVANT, UNNECESSARY AND A COLOSSAL WASTE OF $350 MILLION IN MONEY" THUS IT HAS VERY LIMITED ENVIRONMENTAL IMPACT!"

You may leave this comment sheet with project staff at the door or mail it to:

Secretary Richard K. Sullivan, Jr., Executive Office of Energy and Environmental Affairs,
MEPA Office, Attn.: Holly Johnson, MEPA Analyst, EEA# 15028
100 Cambridge Street, Suite 900, Boston, MA 02114
Fax: 617-626-1181, Email: Holly.S.Johnson@state.ma.us



An Integrated Regional Rail Network for New England

Provided By:

Former Governor Michael Dukakis: 617-373-4396

Former State Rep. John Businger: 617-549-0049

This regional rail planning document and call to action is issued by the following people and organizations:

OCT 2006

Gov. Michael S. Dukakis	
Rep. Stephen F. Lynch	(D-Boston)
Rep. Martin T. Meehan	(D-Lowell)
Robert B. O'Brien	Chair, North/South Rail Link Citizens Advisory Committee (CAC)
Fmr. Rep. John A. Businger	(D-Brookline), Vice Chair, North/South Rail Link CAC, Founder and Chair, Mass. Legislative North/South Rail Link Caucus
Rep. Anne M. Paulsen	(D-Belmont), Present Chair, Mass. Legislative North/South Rail Link Caucus
Rep. Mary E. Grant	(D-Beverly)
Rep. Robert A. DeLeo	(D-Winthrop), Chair, House Committee on Ways and Means
Sen. Steven A. Tolman	(D-Boston)
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Cathy Douglas Stone	Former Chief of Environmental Services (Boston)
Capt. Jeffrey W. Monroe	Director of Transportation, Portland (Maine)
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Ross Capon	Executive Director, National Association of Railroad PassengersAr
James McCaffrey	Director, Massachusetts Sierra Club
Molly McKay	Transportation Chair, Connecticut Sierra Club
Jim RePass	President, National Corridors Initiative (NCI)
Richard Arena	President, Association for Public Transportation (APT)
Wayne E. Davis	Chairman, TrainRiders Northeast, Chief Initiator, Boston/Portland Downeaster
François - L. Nivaud	Principal, New England Management Services, LLC
Jim Stone	Chair, Plymouth Rock Assurance Companies, Former Commissioner of Insurance
Peter G. Christie	President and CEO, Massachusetts Restaurant Association
Patrick T. Lyons	The Lyons Group
D. Herbert Lipson	Chairman, Boston Magazine
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Deborah A. Belanger	Executive Director, Greater Merrimack Valley Convention & Visitors Bureau
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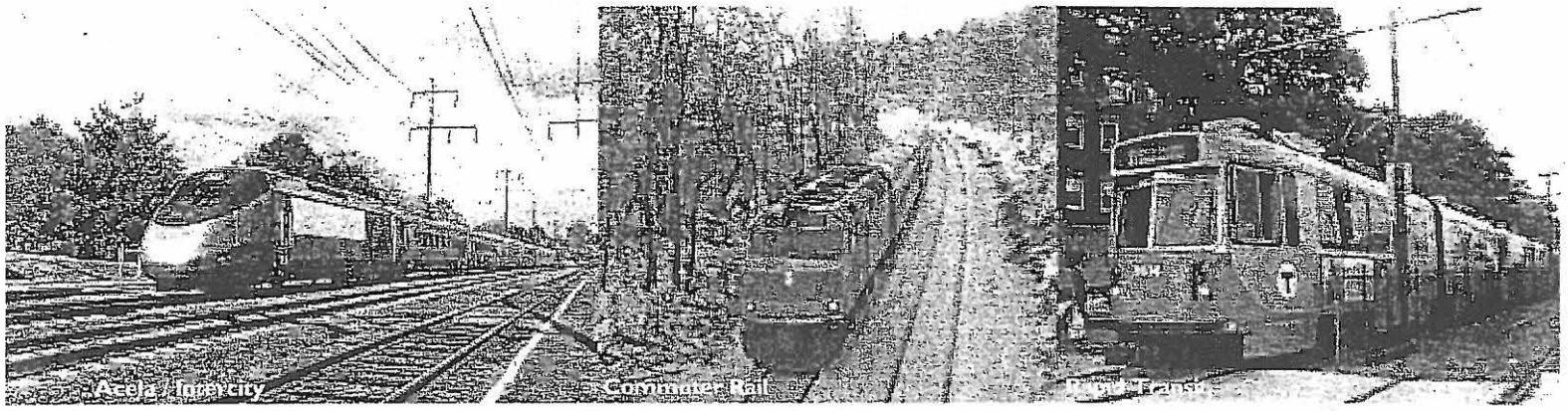
Steve DiFillippo	Owner, Davio's / Avila Restaurants
Ken MacLean	Business Manager, Tunnelworkers Union, Local #88
Joe Dart	President, Massachusetts Building Trades Council, AFL-CIO
Chuck Raso	President, Bricklayers and Allied Craftsmen, Local 3
Peter J. Griffin	President, N.H. Railroad Revitalization Association
Dan Lauzon	Legislative Representative, Brotherhood of Locomotive Engineers (BLE)
Kip Bergstrom	Executive Director, Rhode Island Economic Policy Council
Everett Stuart	Chairman, Rhode Island Association of Railroad Passengers
Art Canter	President and CEO, Massachusetts Lodging Association
Ed Perry	Owner, WATD-FM
Brad Bellows	Architect, member, North/South Rail Link Citizens Advisory Committee (CAC)



Executive Summary:

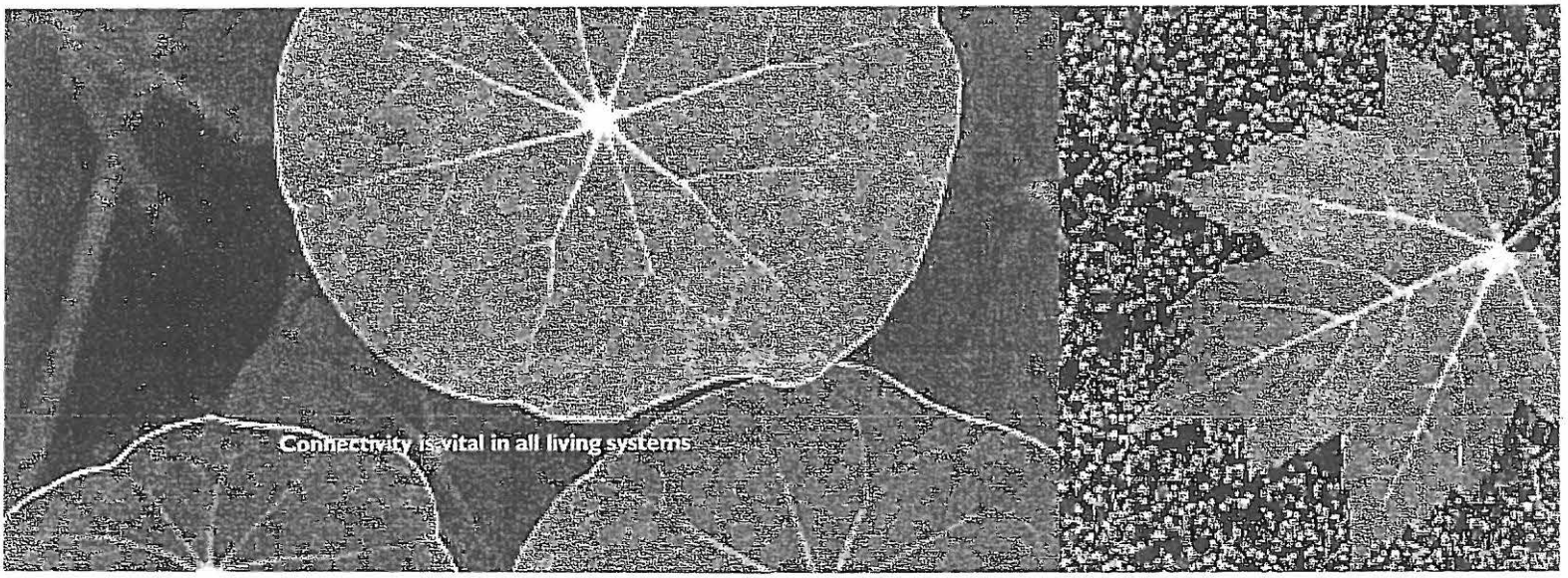
An Integrated Regional Rail Network for New England

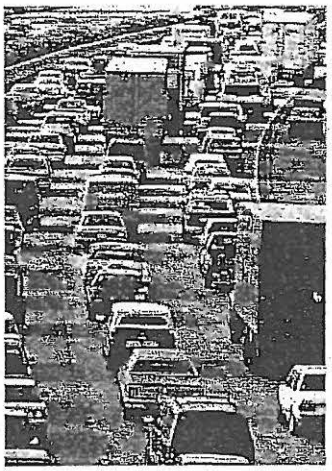
The Commonwealth owns one of the most extensive commuter rail networks in the United States, yet this system operates at a fraction of its potential because of a gap in its very heart--the one-mile gap between North Station and South Station in Boston. To appreciate the missing link, consider how our subway system would function if its major lines were severed in downtown Boston – if Red Line trains from Quincy turned back at Downtown Crossing and trains from Cambridge turned back at Park Street.

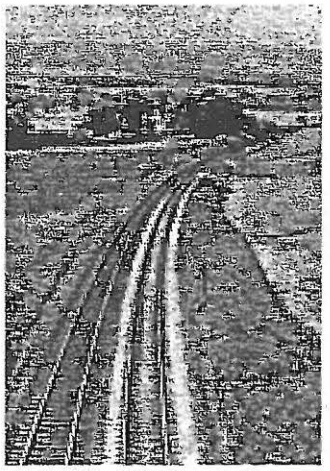
Eliminating this gap, with a rail link between North and South Stations, would transform our two disconnected rail systems into a regional rail network unparalleled in North America and improve efficiency, mobility and capacity throughout Massachusetts, New England and the Northeast Corridor. The North/South Station Rail Link (NSRL) would give New England a major competitive advantage to sustain and expand the prosperity of our entire region in an era of rapidly increasing congestion and energy costs.

The economic case for the NSRL

The high cost of living in Massachusetts is a competitive disadvantage for the state. Recent U.S. Census data estimates that the state is losing significant population to neighboring states, and to the Southeast and West. The state faces troubling long-term trends and there is no way for one town or region in the state to grow its own way out of the affordable housing crisis. In fact, the state has many cities and towns with affordable middle-class housing that are eager for new







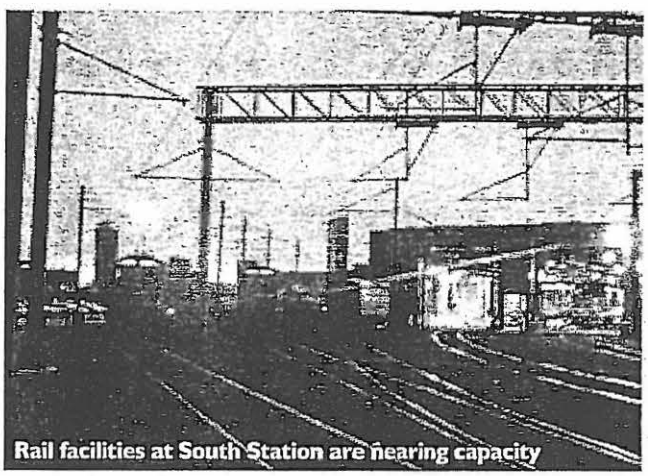
investment and residents. Unfortunately, these regions are isolated from each other by choked highways and inadequate or nonexistent commuter rail service. The recent experience of cities as regionally diverse as Lowell, Brockton and Worcester shows that commuter rail service can make a huge difference in where people choose to live and work.

Massachusetts cannot 'unlock' its regional cities and improve its competitive position without a statewide strategy that takes into account the infrastructure investments needed to make real its potential for economic growth. The NSRL is a key piece of the puzzle because it creates, for the first time, a true regional rail network. The NSRL promises improved capacity for cities that need greater service, one-seat rides between suburban cities that can currently only be made by car, greater capacity to expand the rail system with improved efficiency, and the creation of a regional rail hub for Boston that connects Portland to Providence and New York and points south.

The need for action is urgent.

Integrating our northside and southside rail systems is becoming a necessity. Ridership has grown dramatically in recent years, and both North and South Stations, which are dead ends, are rapidly nearing their design capacity. In the last decade, the Old Colony service has reopened and service has also increased from the west. The recent completion of the Greenbush line has further increased pressure on South Station, jeopardizing new commuter rail service to New Bedford, Fall River, Taunton and Cape Cod. The same situation will soon prevail at North Station as well, given the success of the Amtrak Downeaster service to/from Portland and the anticipated commuter rail extensions north to Nashua and Manchester, New Hampshire. Additionally, the new commuter rail line to Newburyport from North Station has increased northside service just in the last ten years.

Without additional capacity at its downtown terminals, our regional commuter rail system will be unable to meet increased ridership demand. This terminal capacity crunch will also cap Amtrak service to New York and points south and to Portland and points north at a time when the need for intercity rail service has never been greater. Our rail infrastructure should be an engine of regional growth, not a limiting factor. Adding surface platforms in a constrained urban setting is a nearly impossible task, and competes directly with other land uses. The North/South Rail Link, by allowing efficient run-through service, resolves the terminal bottlenecks at their source, making continued service improvements and expansions much more feasible.



Rail facilities at South Station are nearing capacity

The feasibility and benefits of the NSRL have been thoroughly examined and verified.

Extensive, objective analysis has repeatedly documented the need for the NSRL, as well as the costs and feasibility of the project.

A Few Highlights:

- The need for a North/South Rail Link was initially identified as a major public priority nearly 40 years ago, during the Boston Transportation Planning Review (BTPR).

- In 1993, the Central Artery Rail Link (CARL) Task Force, appointed by Governor Weld, issued a 70 page report that confirmed the continued feasibility of a North/South Rail Link (NSRL), estimated project costs, and reinforced the project's importance to the region's transportation system.

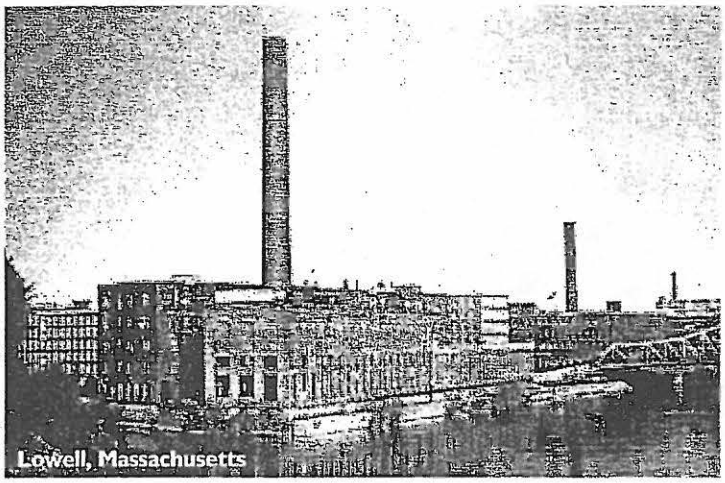
- From 1995 to 2003, Amtrak and the Massachusetts Executive Office of Transportation and Construction (EOTC) led an effort to develop the Major Investment Study (MIS) and related federal Draft Environmental Impact Statement (DEIS) and state Draft Environmental Impact Report (DEIR), overseen by a Citizens Advisory Committee (CAC) appointed by the Executive Office of Environmental Affairs (EOEA).

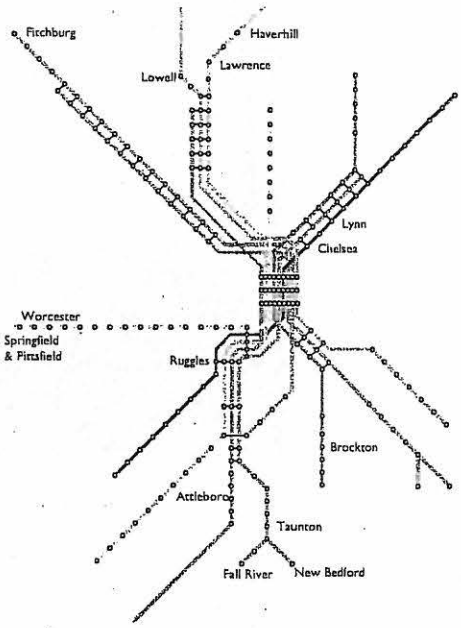
Why is the published cost of the NSRL so high?

The Central Artery / Tunnel (CA/T) Project seems to have traumatized the engineering and construction communities, as well as the public, the media, and many of our public leaders. Because of abundant caution, public infrastructure projects are now burdened by cost estimates with unprecedented contingencies. As a direct result, during the past decade, officials have presented a bewildering array of apparently escalating NSRL cost estimates. From an original estimate of $1.74B in 1993, we have now been told that the project could cost in excess of $8.3B. The true cost of the NSRL is likely to be between $3 and $4 billion.

What are the true costs?

The CARL Task Force estimated the costs of construction of basic project infrastructure to be $1.74B in 1993 dollars. That included the required tunnels, stations, tracks, signals, and portals, but did not include the cost of total system electrification, which was considered desirable, but not essential.





The North South Rail Link will dramatically improve service to many of Massachusetts' struggling older cities, encouraging investment and relieving pressure on other infrastructure.

The earlier figure was revised in the initial 1998 MIS/DEIS/DEIR project construction estimate. The initial MIS/DEIS/DEIR project construction estimate was $2.74B in 1998 dollars, which included a 50% contingency to accommodate unexpected design and construction conditions. This figure was later inflated to 2002 dollars --$3.1B for a full 2-tunnel/4-track/3-station configuration. Given the 50% contingency provision and inflation during intervening years, the $3.1B VHB estimate was essentially in line with the $1.74B CARL Task Force estimate.

In 1997, the Commonwealth commissioned an independent peer review of the project's design and estimated project costs. This analysis, by a group of nationally recognized underground construction engineers, verified that the estimates were both reasonable and conservative, and even suggested that newer mining techniques could likely reduce those estimates. The Peer Review panel recommended a NSRL project construction cost of $2.4B.

The Final MIS/DEIS/DEIR estimate substantially escalated the cost estimate provided by VHB and verified through peer review. The higher costs were justified based on rationales of dubious merit and arguable relevance. These included:

- An additional, undefined $500M to reflect the Central Artery experience.
- An additional $820M to address possible project scope changes – pump stations, access shafts and building underpinning.
- Another $950M to cover new locomotive and coach purchases, most of which would have been required of the MBTA regardless.
- A further $1.3B (30%) for unspecified design, construction management and administrative costs – beyond the previous 50% contingency.
- Another $1.82B for inflation to the presumed mid-point of construction – the first time such a standard was applied to a major infrastructure project.

Tunnel Boring technology is more predictable and efficient, and far less disruptive, than the Cut-and-Cover method used for the Central Artery Project.

Because of these late changes to the initial VHB costs estimates, the estimated NSRL cost increased by two and a half times the earlier estimate -- from $3.1B to $8.3B. Lost in the process was the fact that project construction costs had not increased -- and could probably be decreased, based on improvements in tunnel and station construction methodology.

The NSRL will lead to substantial cost savings.

Projected revenue increases and cost savings were not factored into the MIS/DEIS/DEIR financial analysis. As documented in the MIS/DEIS/DEIR related technical studies, these included

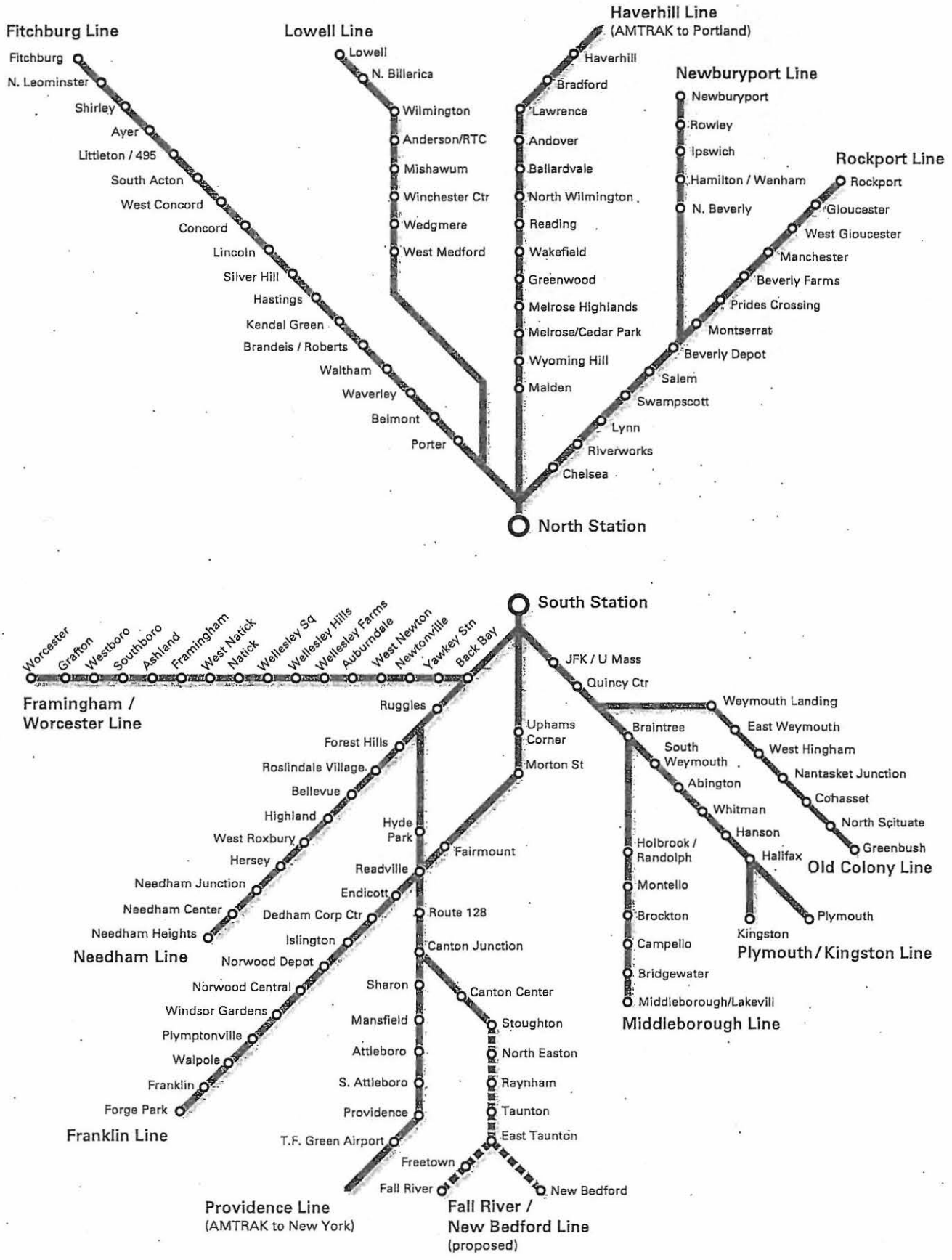
- Increases in annual operating revenues ($120M+) from significantly increased rail ridership.
- Operating expense savings ($70-90M annually) from major staff, equipment, and logistical efficiencies.
- Reductions in initial equipment purchases ($75M) that would otherwise have been made by the MBTA, a significant, albeit non-recurring cost.

These revenue sources were carefully calculated in the initial phases of the MIS/DEIS/DEIR technical studies; and for the 4-track/3-station option, it was estimated they could total $270M annually in 2010 dollars. These are the continuing operational benefits the NSRL would provide, along with the essential additional transportation capacity required to sustain our economic growth.

If the cost savings are taken into account, these recurring cash flows are sufficient to cover the annual bonding amortization costs of virtually all of the projected project capital costs based on initial VHB estimates – and almost half of even the most inflated estimates.

Conclusion

What this report attempts to underscore is that there is no other practical means to achieve the essential goal of additional regional transportation capacity and operational efficiency that the North/South Rail Link alone can provide and our regional rail system desperately needs. That is a fact that former Governor Romney's recent long-range transportation plan confirmed, even though that plan neither embraced the NSRL project nor offered any practical alternative to it.


Fitchburg Line
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N. Leominster
Shirley
Ayer
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South Acton
West Concord
Concord
Lincoln
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Brandeis / Roberts
Waltham
Waverley
Belmont
Porter
Lowell Line
Lowell
N. Billerica
Wilmington
Anderson/RTC
Mishawum
Winchester Ctr
Wedgmere
West Medford
Haverhill Line
(AMTRAK to Portland)
Haverhill
Bradford
Lawrence
Andover
Ballardvale
North Wilmington
Reading
Wakefield
Greenwood
Melrose Highlands
Melrose/Cedar Park
Wyoming Hill
Malden
Newburyport Line
Newburyport
Rowley
Ipswich
Hamilton / Wenham
N. Beverly
Rockport Line
Rockport
Gloucester
West Gloucester
Manchester
Beverly Farms
Prides Crossing
Montserrat
Beverly Depot
Salem
Swampscott
Lynn
Riverworks
Chelsea
North Station
South Station
Worcester
Grafton
Westboro
Southboro
Ashland
Framingham
West Natick
Natick
Wellesley Sq
Wellesley Hills
Wellesley Farms
Auburndale
West Newton
Newtonville
Yawkey Stn
Back Bay
Framingham / Worcester Line
JFK / U Mass
Quincy Ctr
Weymouth Landing
East Weymouth
West Hingham
Nantasket Junction
Cohasset
North Scituate
Greenbush
Old Colony Line
Braintree
South Weymouth
Abington
Whitman
Hanson
Halifax
Plymouth
Kingston
Plymouth / Kingston Line
Holbrook / Randolph
Montello
Brockton
Campello
Bridgewater
Middleborough/Lakevill
Middleborough Line
Ruggles
Forest Hills
Roslindale Village
Bellevue
Highland
West Roxbury
Hersey
Needham Junction
Needham Center
Needham Heights
Needham Line
Uphams Corner
Morton St
Hyde Park
Fairmount
Readville
Endicott
Dedham Corp Ctr
Route 128
Islington
Canton Junction
Norwood Depot
Norwood Central
Windsor Gardens
Plymptonville
Walpole
Franklin
Forge Park
Franklin Line
Sharon
Canton Center
Mansfield
Stoughton
Attleboro
North Easton
S. Attleboro
Raynham
Providence
Taunton
T.F. Green Airport
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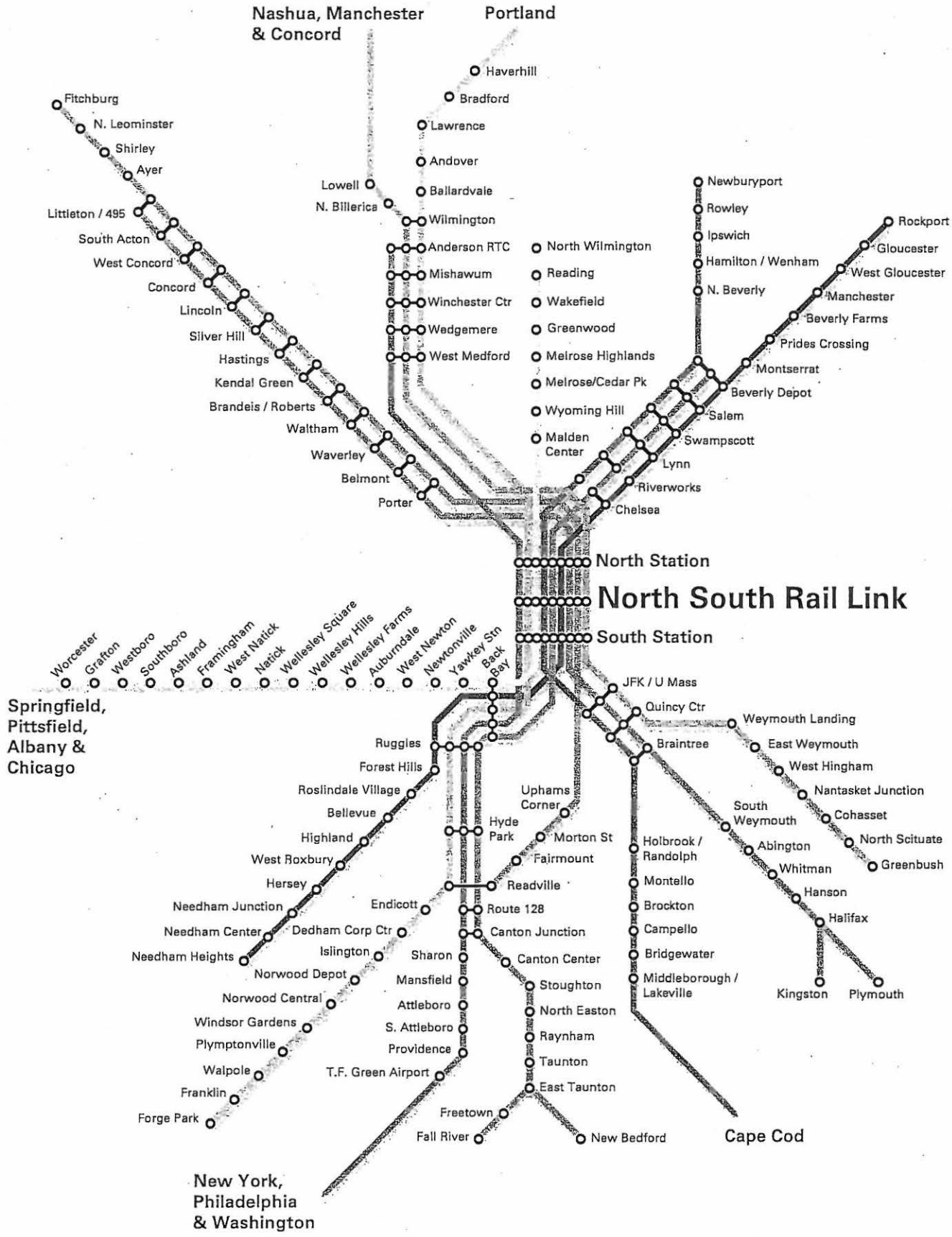
Freetown
Fall River
New Bedford
Providence Line
(AMTRAK to New York)
Fall River / New Bedford Line
(proposed)

An Integrated Regional Rail Network



October 10, 2006

AN INTEGRATED REGIONAL RAIL NETWORK FOR NEW ENGLAND

The Prospects and Promise of a New England Rail Connector

AN OPPORTUNITY **MISSED:** In the early 1970s Governor Francis Sargent began a new and improved era of regional transportation planning and development in Massachusetts when he ceased construction of the inner belt highway system in Boston and convened the comprehensive Boston Transportation Planning Review (BTPR). The BTPR process established a new blueprint for almost forty years of transportation infrastructure investment in the Commonwealth, The BTPR was rooted in balanced and integrated transportation policy, which emphasized the expansion of our rail and transit options and continued improvement of our air travel and highway assets.

The final element of the BTPR vision was the Central Artery/Tunnel (CA/T) Project, designed to modernize the antiquated Boston section of the regional and interstate highway system. In accordance with the BTPR, it would also have also closed the longstanding Boston gap in the regional and interstate rail system between North and South Stations by building the North/South Rail Link (NSRL). In the final analysis— and in an ironic inconsistency with the spirit of the BTPR- the rail link aspect of the CA/T project was eliminated in favor of additional highway lanes. However, by design, during the construction of the Central Artery Project, the right of way for the future construction of the NSRL tunnel was preserved.

AN ENCOURAGING RESPONSE: in 1993 - while aspects of the CA/T Project were in the final stages of planning and permitting — Gov. William Weld convened the Central Artery Rail Link (CARL) Task Force to review and evaluate its continuing feasibility, costs and benefits as an independent project. Governor Weld explicitly asked the CARL Task Force to address four major goals:

- Close the only gap in intercity rail service along the Atlantic seaboard.
- Develop an integrated regional rail network serving Massachusetts and New England through improved commuter rail service.
- Reaffirm Massachusetts as a national leader in intermodal transportation planning, design, engineering and construction.
- Broaden the public benefits of the Central Artery/Tunnel (CA/T) Project through increased regional service, consistent with national transportation and environmental policy (See the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Clean Air Act Amendments of 1990),

POSITIVE FINDINGS: In May of 1993 the CARL Task Force published a 70-page report that confirmed the continued feasibility of the North/South Rail Link (NSRL) as a part of the CA/T Project, estimated its costs as a separate project, and confirmed its continued benefits. State and federal elected officiais and transportation agencies, led by then Senate Majority Leader George Mitchell of Maine and Senator Edward M. Kennedy of Massachusetts, promptly secured $4M in Federal Railroad Administration (FRA) funds and the authorizations necessary for the environmental and financial evaluation of the NSRL Project.

OFFICIAL FOLLOW-UP: The environmental and financial evaluation of the NSRL began in 1995 with Amtrak and the Executive Office of Transportation and Construction (EOTC) as project partners, with the oversight of thé Massachusetts Bay Transportation Authority (MBTA) Planning Department and the broad-based NSRL Citizens Advisory Committee (CAC). The result of that collaboration, the 2003 Major. Investment Study (MIS) and Draft Environment Impact Statement and Report (DEIS/DEIR), documented and confirmed the positive assessment of the CARL Task Force.

CONTINUING HIATUS: Despite the favorable findings of the MIS/DEIS/DEIR, no further official action has been taken to advance this critical project.

CALL TO ACTION: Gubernatorial leadership is required. Renewed popular and political support for the NSRL Project is essential given the extensive transportation demands of our continuing economic development, looming capacity constraints on regional rail ridership, increased congestion on our highways and transit systems, escalating costs of energy and unavoidable homeland security requirements on all forms of transportation.

NEED FOR A NEW VISION: As the notably successful BTPR era ends, we must develop an innovative and integrated vision for multimodal transportation beyond the CA/T Project. We must again look.to the Massachusetts Governor's Office to provide ■ the leadership and understanding required to articulate and achieve that vision for Boston, the Commonwealth, New England and the Northeast Corridor. The NSRL Project, because of its inter-modal transportation potential, extensive economic, environmental and geographic benefits and inherent cost-effectiveness, should become one of the major foundations for that new vision.

THE CURRENT FLAIL SYSTEM (S): The Commonwealth owns one of the most extensive commuter rail networks in the United States, yet this system operates at a fraction of its potential because of a gap in its very heart - the one-mile gap between North Station and South Station in Boston, which is also a gap in the Northeast Corridor. To appreciate the missing link, consider how our subway system would-function if its major lines were severed in downtown Boston - if Red Line trains from Quincy turned back at Downtown Crossing and trains from Cambridge turned back at

Park Street Although the consequences of such a bifurcated system can only be imagined, that is precisely the situation our rail system has dealt with for more than a century.

Eliminating this gap with a rail link between North and South Stations would transform our two disconnected rail systems into a regional rail network unparalleled in North America. Unking our separate rail systems would improve efficiency, mobility
and capacity throughout Massachusetts, New England and the Northeast Corridor. The construction of the North/South Rail Link (NSRL) would, in fact, extend and complete the Northeast Corridor; it would give New England a major competitive advantage to sustain and expand the prosperity of our entire region in an era of rapidly increasing congestion and energy costs,

THE SPECIFIC CONCLUSIONS OF THE CARL TASK FORCE REGARDING THE BENEFITS OF A NSRL PROJECT: In its 1993 report to the Governor and to the Executive Office of Transportation and Construction (EOTC) Secretary, the CARL Task Force enumerated the following benefits from the North/South Station Rail Link:

- Intercity rail service will be improved by allowing through service to Maine and New Hampshire. Access to intercity rail services will be improved by providing direct regional rail access from all lines to intercity stations.

- Regional rail inter-connectivity will be revolutionized by the operation of through-routed rail pairs, serving a wider array of requirements beyond simple radial commuter trips.

- The inherent efficiency of run-through service will solve upcoming station/track capacity problems at South Station.

- Core area trip distribution wiil be much improved with the rail link serving as its own trip-distribution mode for many more trips. Easy direct connections to all four MBTA transit lines will provide many simpler transfer opportunities for regional rail patrons.

- Rapid transit congestion levels will be reduced as riders shift to regional rail

*:♦ Logan Airport will be directly accessible from South Station by the Silver Line. These connections will be available for all Amtrak and regional rail passengers. Blue Line access to the airport will also be available via the new rail link central station.

*> Highway/rail integration would be optimized through intermodal stations and activity centers at outlying crossing points of major highways and rail iines. These activity centers will synergistically maximize ridership and the effectiveness of the regional rail system.

RELEVANT INTERIM EVENTS: In the more than twelve years since these benefits of the NSRL were clearly outlined by the CARL Task Force, the issues and opportunities that they reflect have remained equally valid and have become ever more timely:

- With increasing commuter rail ridership and the expansion of commuter rail and Amtrak service to and from North and South Stations, the track capacity problems are now imminent at South Station and rapidly approaching at North Station - all of which the NSRL would address and resolve.

- Congestion and capacity problems are increasing on transit, highway and air travel systems, and expanding them remains physically and politically constrained - leaving rail as the only regional transportation mode realistically capable of expansion.

- Escalating gasoline and parking prices have made cars cost-prohibitive for many, increasing the attraction of rail travel.

- The shift of commuters from highway to rail, which the NSRL achieves to an unprecedented degree by eliminating 60,000 automobile trips, is important to the quality of life as well as the environmental health of the whole region.

- Fall River, New Bedford, Lowell and Lawrence have all been designated with State Economic Enterprise Zones, largely, because of their actual or potential connection by commuter rail. Their economic success would clearly be enhanced by the improved accessibility and mobility of a truly regional rail system.

- The Seaport District, enhanced by the new Convention Center, is a major new development opportunity that would be quite conveniently accessible by an integrated regional rail system. However, the full development is likely to be delayed and constrained, as recent Massachusetts Environmental Policy Act (MEPA) rulings have suggested, by inadequate transportation capacity. ■

- Major transit-oriented development (TOD) options would be greatly enhanced and accelerated at North Station and South Station by access to a regional rail system.

- TOD is now both established state policy and an attractive economic development strategy. That positive trend is enhanced by truly regional rail that extends the reach of every rail station in the system, providing additional potential for both suburban-to-suburban as well as urban-to-suburban commuting,

- New emphasis on environmental justice requires that all communities share equitably both the benefits and burdens of transportation services and projects. The benefits of the regional rail network should fully available to the inner city and inner-belt communities through which it now runs. The NSRL would open new station, destination and employment options to such communities in Boston, Cambridge, Somerville and Chelsea.

*> Suggested air/rail Sinks have been greatly enhanced by transportation, terminal and transit improvements at the airport and by the construction of a transit-way that links South Station and Logan Airport via the Ted Williams Tunnel. The new Silver Line connection from South Station to the airport now makes that station the most completely intermodal terminal in the nation.

- Stringent homeland security policies after the 9/11 terrorist attacks have made air travel more time consuming and less convenient. They also complicate and constrain automobile access to and from the airport. Integrated regional rail that expedites air to rail transfer and provides an attractive alternative to air-trave! is an important element of a contemporary multimodal regional transportation system; and what the NSRL alone would provide.

- The continued economic growth, integration and vitality of the Northeast Corridor (NEC) are critically important to New England. The NEC's financial, economic and political viability would be greatly enhanced by the NSRL north of Boston to include the other New England states and Canada, and potentially south to include elements of the emerging new Research Triangle beyond the District of Columbia in North Carolina. An expanded regional transportation system could create important competitive advantages nationally and internationally,

- The recreational potential of raii transportation has continued to grow both locally - e.g., expanded marketing of rail access to Gillette Stadium, Fenway Park and ID Banknorth Garden— and regionally—e.g., winter ski/rail vacations to northern New England and Canada and potentially summer travel to Cape Cod. The NSRL would extend access to these recreational destinations.from up and down the Atlantic Coast.

- Substantial improvements in rail equipment and construction methodology, including improved dual-mode locomotives, make the cost and predictability of construction and the operation requirements more predictable and reliable.

- Federal funding programs since the Inter-modal Surface Transportation Efficiency Act (ISTEA) of 1991 have explicitly permitted and encouraged investment in a balanced transportation network that emphasis inter-modal connectivity, efficiency and cost-effectiveness -- all inherent to NSRL. design and function.

These and other critical benefits of the NSRL Project, and their related costs, were explored and documented in great detail throughout the MIS/DEIS/DEIR process. And while the issues and opportunities that they address have not diminished, the favorable findings and conclusions of that process remain largely ignored. We want to take this opportunity to highlight some of those matters in more detail.

THE CONTINUING CHALLENGE OF AFFORDABLE HOUSING: Escalating Housing costs continue to price potential young Massachusetts residents out of our residential real estate market - a factor that has received much attention in conjunction with reports of our recent population decline. Those who were born here or come here to attend college find that they cannot afford to work, live and raise their families here.

Massachusetts actually has plenty of affordable housing, but it is located in older urban communities without rail access to Boston, like Fall River and New Bedford. Businesses are less likely to locate in these areas because they are competitively disadvantaged by limited transportation options and increased highway congestion. And while improved rail access to this region is already planned, it is impractical without the increased station and track capacity in Boston that only a NSRL can provide.

Connecting our older cities by rail to both Boston and the rest of the state has been a key element in the revitalization Lowell, Worcester and Brockton; where rail access is available, it has had a catalytic effect,

Lowell, for example, continues to successfully develop new downtown lofts that have attracted those priced out of the Boston area real estate by marketing a 40-minute rail commute to Downtown Boston. Likewise, Worcester Mayor Tim Murray continues to push for more frequent rail service between Boston and Worcester to continue the revitalization process started in 1994 with the extension of commuter rail and the restoration of its magnificent Union Station.

Even more recently, Broclcton has taken a proactive approach to promoting its downtown development after three new commuter rail stations opened there in 1998, Indeed, Jack Yunlts, the five-term mayor of Brockton, in a recent article in the Boston Globe, cited commuter rail extension as the single most important reason why his city is now turning itself around, Banking and community leaders have been promoting home ownership and residential/commercia! smart-growth opportunities in Brockton in a collaborative manner that is becoming a model for other struggling older urban communities.

CAPACITY CONSTRAINTS: Integrating our northside and southside rail systems is becoming a necessity. Ridership has grown dramatically in recent years, and both North and South Stations, which are dead ends, are rapidly nearing their design capacity. In the last decade, the Old Colony service has reopened and service has also increased from thé west. Once service starts on the new Greenbush line in 2007, it will be difficult for South Station to handle additional service, and that would jeopardize new commuter rail service to New Bedford, Fail River, Taunton and Cape Cod. The same situation will soon prevail at North Station as well, given the success of the Amtrak Downeaster service to/from Portland and the anticipated commuter rail extensions north to Nashua and Manchester, New Hampshire. Additionally, the new commuter rail line to Newburyport from North Station has increased northside service just in the last ten years.

Without additional capacity at its downtown terminals, our regional commuter rail system will be unable to meet increased ridership demand. This terminal capacity crunch will also cap Amtrak service to New York and points south and to Portland and points north at a time when the need for intercity rail service has never been greater. Our rail infrastructure should be an engine of regional growth, not a limiting factor. Adding surface platforms in a constrained urban setting is a nearly impossible task, and competes directly with other land uses. The North/South Rail Link, by allowing efficient run-through service, resolves the terminal bottlenecks at their source, making continued service improvements and expansions both easy and more feasible.

INCREASING URGENCY: Although Governor Romney's recent report on the state's transportation future clearly noted these problems, it did not offer any solutions. In the short-run, the Commonwealth may build additional tracks and other improvements at the two stations to accommodate some increased rail traffic - if adjacent public and private property owners cooperate. Such substantial investments would marginally increase terminal capacity, but do little to expand the throughput capacity of the system. Only the NSRL can achieve that essential goal through major increases in ridership and revenues, as well as operating efficiencies and cost savings.

The Commonwealth does not have the luxury of deciding whether or not to build the North/South Rail Link- it must be built if Boston, Massachusetts and New England are to continue to grow and develop economically, in the meantime, we must also be sure that we do not preclude that option by compromising a limited and vulnerable right-of way with other development plans for the area that fail to take it into adequate account.

AN ADAPTABLE PROJECT: Project proponents have continued to consider how the basic NSRL concept could be adapted in an even more appropriate, cost effective and operationally efficient manner.

The initial NSRL concept envisioned three downtown stations - North, South, and Central. That proposal was advanced when the most direct link between commuter rail and the airport was via the Blue Line at the NSRL Central Station to the existing Aquarium T Station. Since then, with construction of the Ted Williams Tunnel, the airport connection can arguably be better made via the new Silver Line from South Station, which makes the Central Station relatively less important.

Both 3-station and 2-station options were evaluated in the MiS/DEIS/DEIR. in the 2-station scenario, the northern station would move somewhat to the south, and the southern station would move somewhat to the north; but each would be directly linked by underground walkways to the existing transportation complexes at North and South Stations respectively. Eliminating the proposed central station would reduce the cost by hundreds of millions of dollars.

RELEVANT HISTORY: Political and economical historians ponder why North and South Stations have never been connected. As the 20th Century was just beginning, northern New England railroad barons negotiated a treaty with J.P. Morgan's New York and Southern New England railroad baron to divide New England along a line between Boston and Albany. Morgan agreed to stay on the south side of the line, and his competitor agreed to stay on the north side of the line. Thus, neither side had any interest in closing the gap between North and South Station, since any connection might invite competition. The original plans for the CA/T Project had included a rail connector down the center of the new underground artery, but the perceived need to expand the roadway preempted that. The failure to build a North/South Rail Link has now resulted in four critical challenges that will only get worse:

□ Capacity constraints at both North and South Stations, as previously described.

□ Unrealized ridership growth, because potential new commuter rail passengers are

discouraged by the need for long walks and/or transfers to the T in order to reach their final Boston destinations.

- Higher staffing, equipment and operating costs for the two inefficient stub-end systems, which require their operators to turn around at the terminals rather than run through to the other side of the system.

- Increased congestion on our highways and in our subway systems - and related adverse air quality impacts -- from thousands of commuters who would otherwise commute by rail. The MIS/DEIS/DEIR process reliably estimated the number of trips involved in the range of 60, 000 automobile trips and 50,000 transit trips daily.

An inter-modal shift of that magnitude is significant because neither the highway nor transit systems in the downtown core are capable of expansion. With the NSRL, the regional rail system is the only element of our transportation network capable of expanding capacity and utilization, which is essential to the efficient operation of all modes of transportation as well as to our future economic development and employment growth.

IMPROVED CONSTRUCTION METHODOLGIES: Underground construction, of the type required by the NSRL, has been successfully accomplished elsewhere in Massachusetts using construction methodologies that were quite innovative and are both cost-effective and reliable:

- The Red Line extension from Harvard Square to Aiewife involved extensive tunnel work; it was completed on-time and on budget.

- The Orange Line through the South End, Roxbury and Jamaica Plain used tunnel slurry wails along a substantial part of the corridor; there were no major cost or schedule overruns.

*> The Boston Harbor cleanup involved substantia! tunneling and was, next to the CA/T Project, the single most extensive and expensive public works project in the Commonwealth's history. Unlike the CA/T Project, however, it was completed on-tirrie and under-budget. The Massachusetts Water Resources Authority continues to do extensive tunneling as part of its effort to modernize and expand the capacity of the system, with no major overruns thus far.

Recent experience with the CA/T Project and world-wide with underground methodologies for tunnel and station construction makes projects such as the NSRL increasingly more reliable and more cost effective. Because we already know a lot about the geology and other conditions in this particular part of the city after our

experience with the CA/T Project, the NSRL should be far less costly and complicated with fewer uncertainties regarding its scope, schedule and budget.

PROJECT COST PROJECTIONS: The CA/T Project seems to have traumatized the engineering and construction communities, public, media, and many of our public leaders. Because of abundant caution, public infrastructure projects are now burdened by cost estimates with unprecedented contingencies.

As a direct result, during the past decade, officials have presented a bewildering array of apparently escalating NSRL cost estimates. Although the original estimate was $!.74B in 1993, we have now been told that the project could cost in excess of $8.3B.

How and why projected NSRL costs appear to have quadrupled in the past ten years is an interesting story:

- The Initial CARL Estimate: The expert CARL Task Force prepared the initial project estimates for Governor Weld in 1993 to evaluate the feasibility of the NSRL project — and assure the CAT Project was designed and built to preserve the NSRL right of way. The CARL Task Force estimated the costs of construction of basic project infrastructure to be $1.74B in 1993 dollars. That included the required tunnels, stations, tracks, signals and portals, but did not include the cost of total system electrification, which was considered desirable, but not essential.

- The Initial Vanasse Hangen Brustlin (VHB) Estimate: Based upon the CARL Task Force's positive conclusions and with $4M in federal funds, the NSRL Project, with Amtrak and EOTC as project partners, proceeded in 1995 to an extensive environmental evaluation and economic analysis with the Major Investment Study (MIS) and related federal Draft Environmental Impact Statement (DEIS) and state Draft Environmental Impact Report (DEIR). The MIS/DEIS/DEIR was completed in 2003,

  The initial MIS/DEIS/DEIR project construction estimate was $2,748 in 1998 dollars, which included a 50% contingency to accommodate unexpected design and construction conditions. This figure was later inflated to 2002 dollars - $3.IB for a full 2-tunnei/4-track/3-station configuration. Given the 50% contingency provision and inflation during intervening years, the $3.1 B VHB estimate was essentially in line with the $1.74B CARL Task Force estimate.

- The Peer Review Estimate: Integral to the MIS/DEIS/DEIR process, was the review of the VHB financial estimates by independent professionals with experience in underground construction. The peer review of the VHB construction cost estimates verified that they were both reasonable and conservative. They even suggested that newer mining techniques could likely

reduce those estimates. The Peer Review panel recommended a NSRL project construction cost of $2.4B.

- The Final MIS/DEIS/DEIR Estimate: Just before the MIS/DEIS/DEIR document was to be published in 1998, the initial VHB total project cost estimate was escalated substantially, even though the underlying project costs remained unchanged. This was done over the Citizens Advisory Committee's expressed objections. The higher costs were justified based on rationales of dubious merit and arguable relevance. These included:

  > An additional, undefined $500M to reflecttbe ***Artery experience.***

  > An additional $820M to address possible project scope changes - pump stations, access shafts and building underpinning.

  > Another $950M to cover new locomotive and coach purchases, most of which would have been required of the MBTA regardless.

  > A further $1.3B (30%) for unspecified design, construction management and administrative costs - beyond the previous 50% contingency.

  > Another $1,82B for inflation to the presumed ***mid-point of construction*** - the first time such a standard was applied to a major infrastructure project.

  Because of these late changes to the initial VHB costs estimates, the estimated NSRL cost increased by two and a half times the earlier estimate - from $3.1 B to $8.3B. Lost in the process was the fact that project construction costs had not increased ~ and probably had decreased, based on improvements in tunnel and station construction methodology.

OPERATIONAL SAVINGS AND COST CONSIDERATIONS: Additional to this major NSRL project cost increase, projected revenue increases and cost savings were not directly factored into the MIS/DEIS/DEIR financial analysis. As documented in the MIS/DEIS/DEIR related technical studies, these included:

*> Increases in annual operating revenues ($120M+) from significantly increased rail ridership.

*> Operating expense savings ($70-90M annually) from major staff, equipment and logistical efficiencies.

- Reductions in initial equipment purchases ($75M) that wouid otherwise have

been made by the MBTA, a significant, albeit non-recurring cost.

These revenue sources were carefully calculated in the initial phases of the MIS/DEIS/DEIR technical studies; and for the 4-track/3-station option, it was estimated they could total $270M annually in 2010 dollars. The nationally known and respected Infrastructure Management Group (IMG), in doing a financial plan for the project, concluded that half of the $270M would result from improved system-wide equipment utilization, increased crew productivity, direct access to the Boston Engine Terminal for equipment maintenance throughout the system, a reduction in non-revenue ***deadhead*** trips, and stopping trains from having to back out of congested terminals. These are the continuing operational benefits the NSRL would provide, along with the essential additional transportation capacity required to sustain our economic growth.

Curiously, they were' not reflected in the MIS/DEIS/DEIR. If they had been so reflected, these recurring cashflows would have been be sufficient to cover the annual bonding amortization costs of virtually all of the projected project capital costs based on initial VHB estimates - and almost half of even the most inflated estimates.

POTENTIAL COMMERCIAL AND JOINT DEVELOPMENT INCOME: The IMG also concluded real estate development at and around North and South Stations could generate $14.6M to $19;2M in annual revenues — and perhaps as high as $66.8M to $96,1M, assuming a design-build procurement strategy combined with higher levels of joint development and shared pubiic/private construction.

Four things are particularly significant about these estimates:

- Relevance: As with the operating revenues and savings described above, these potential income sources were left out of the MIS/DEIS/DEIR financial analysis.

- Timeliness: These estimates likely understate the commercial potential of NSRL stations, when designed, constructed, financed, marketed and managed as integrated transportation and retail facilities. Recent trends in integrated retail, restaurant and other commercial tenants in the design and operation of airport terminals throughout the country, as well as the successful retail experience of underground transportation complexes elsewhere in the world, demonstrate interesting and relevant opportunities.

- Scope:. The pubiic/private partnership and joint economic development potential of the NSRL Project is not limited to North and South Stations, and likely substantially understated in the MIS/DEIS/DEIR. Such opportunities include development possibilities elsewhere in Downtown Boston - the adjacent Seaport

District, the future development of which is constrained by accessibility issues, as recent MEPA comments on previous Seaport District development proposals have made clear. While many of these development opportunities are likely to be undertaken eventually, ail would be expanded, facilitated and accelerated by the additional transportation capacity and mobility the NSRL alone can provide.

- Equity: The economic development opportunities facilitated by this project encompass virtually all areas already identified as economic enterprise zones; specifically including critical areas of intersection among the present and proposed elements of our multi-modal transportation network.

  Such development opportunities include those locations where rail intersects with highway, as in Westwood or Woburn; but also include Boston, Cambridge, Somerville and Chelsea, in these communities, the existing rail system intersects with current transit lines and with the planned Urban Ring circumferential route. These communities bear all of the burdens of rail facilities without securing any of their benefits - making the NSRL an important issue of environmental justice.

The increased regional accessibility and mobility that would be provided by the NSRL would support and accelerate development in these areas. It would also extend such economic and employment opportunities beyond the reach of the existing rail network as both commuter and interstate rail continues to grow in Massachusetts, New England and along the Northeast Corridor. In that context, the North/South Rail Link is truly a New England or Northeast Corridor Rail Link, given the extensive scope of the regional transportation, economic and environmental benefits that it would generate

THE NSRL AS A FOUNDATION FOR A NEW TRANSPORTION VISION:
More than thirty-five years ago, a combination of responsive gubernatorial leadership . and informed community involvement resulted in a BTPR process that changed the way
we thought about the balance and symmetry of public and private transportation systems in Boston and Massachusetts. It also provided a practical and long-term blueprint for our regional transportation strategy investment in the decades that followed - one that culminated in the CA/T Project and has now been effectively completed.

Today we need a new vision for the future - one that values and integrates all of our economic, environmental and transportation plans, priorities and values. And rather than basing that perspective on a project that should not be done, as was the case with the BTPR, now we can build it on a project that should' be done- the NSRL.

The NSRL is uniquely suited to be a principal foundation on which to build such renewed and integrated regional vision for at least four reasons:

- Benefits: The NSRL produces regional transportation, environmental and economic benefits that are timely, relevant and demonstrable - and are not otherwise possible on that scale from any other proposed transportation projects.

- Scope: The NSRL physically and functionally intersects all aspects of multimodal regional transportation network - highway, rail, transit, air, water; it does so in a manner that supports and enhances their complementary interaction.

- Scale: The NSRL is truly regional in scope, given the fact that it finally integrates a growing commuter and interstate rail network that extends throughout and beyond the Commonwealth and actually encompasses all of the states in New England and the Northeast Corridor,

*> Synergy: This project complements economic development policies and plans in both the public and the private sectors in a manner that lends itself to the kind of public/private planning and development and financing partnerships that are now becoming increasingly characteristic of transit-oriented development initiatives. These inciude recent ***district improvement financing*** proposals advanced by the Boston Redevelopment Authority (BRA) in connection with Seaport District infrastructure funding and could be relevant for transit-oriented development'elsewhere as we!!.

For all of these reasons, there is no other present or proposed project that has the potential to reflect and reinforce the issues and opportunities that should inform our regional vision for the 21st Century as fully as does the NSRL Project. It also offers an opportunity for political leadership on the scale of the BTPR and in the context of a gubernatorial campaign debate about how we should think about transportation, economic and environmental plans and priorities in new substantive and institutional ways. This is an opportunity not to be missed.

RECOMMENDED NEXT STEPS: To that end, there are a specific series of next action steps that we believe must be promptly and seriously considered: •

- Designate the New Executive Office of Transportation (EOT) to Complété and
  File the Final NSRL Project EIS/EIR: The NSRL Project MIS/DEIS/DEIR, which
  was completed after eight years of professional and community input in 2003, has yet to be officially received by federal or state authorities, in large part because no

state agency was ready, willing and able to accept responsibility for completion of the Final EIS/EIR document.

The MBTA, to which the formerly named Executive Office of Transportation and Construction (EOTC) had perhaps unfortunately delegated responsibility for preparing the draft MIS/DEIS/DEIR document, was clearly unready or unwilling to do so in 2003, given project priorities that were already beyond its capabilities and its continuing and very serious budget problems. EOT itself, based on its original legal relationship with Amtrak and on the scope of its multi-modal transportation purview, is the most appropriate and advisable candidate for this task, and the new Governor, regardless of his or her party affiliation, should direct EOT to proceed to the next steps.

- Engage the Other New England States in this Collective Endeavor: As a truly regional project that has substantial benefits for all of the New England states, both individually and collectively, it is both appropriate and advisable for all of New England, in both the private and the public sectors, to work together on the NSRL Project. Undoubtedly, the lack of consistent coordination and communication among the New England states to date has contributed to the lack of significant progress on the NSRL since the MIS/DEIS/DEIR was published. In that regard, it's especially regrettable that Governor Romney has taken Massachusetts out of the National Governors' Association.

  Leadership to that end by the Commonwealth of Massachusetts, of the type that Governor Weld applauded when he appointed the CARL Task Force, is clearly in order.

- Update the Financial Analysis: Because of the incompleteness of the MIS/DEIS/DEIR financial analysis as described above, and in the light of new information and changed conditions since that time, it is appropriate and advisable to expand and update the financial analysis as quickly as possible. This should include the following steps:

  > Review the generally agreed-upon project construction costs and their possible revision based on new construction methodologies including technology, expertise and experience, and update all estimates to current dollars.

  > Review the basic scope of the project in order to determine the optimum number of tunnels, tracks, stations, and platforms.

> Adjust ridership and related revenue projections to reflect the optimum system configuration(s),

> Verify projected operating and equipment costs/savings,

> Determine the appropriate levels of contingency for a project of this type at this stage of its development, with due consideration to emerging risk-based estimating polices and procedures.

> Identify the nature and scope of related commercial and development opportunities

> Prepare a comprehensive funding/financing strategy that includes all these updated projections.

> Identify critical right-of-way issues and develop and Implement interim right-of-way protection strategies in cooperation with city, state and federal environmental review, and development planning and permitting agencies.

<* Submit this Analysis to Peer Review, in order to validate the basic engineering, transportation, development and funding assumptions of the financial analysis,
both to verify their objectivity and enhance their credibility.

□ Undertake Preliminary Engineering based on the proposed project configuration and logistical assumptions.

□ Publish a Final EIS/EIR for further action, as appropriate.

□ Request and Utilize Federal Funds ***already*** authorized for these purposes.

CONCLUSION: What this report attempts to underscore is that there is no other practical means to achieve the essential goal of additional regional transportation capacity and operational efficiency that the North/South Rail Link alone can provide and our regional rail system desperately needs. That is a fact that Governor Romney's recent long-range transportation plan confirms, even though that plan neither embraces the NSRL project nor offers any practical alternative to it.

Clearly, both of our major rail terminals are already running out of station and track space. South Station will barely be able to accommodate the new Greenbush service scheduled to begin operating next year. That will seriously jeopardize critical plans

for expanded commuter rail to Fall River, New Bedford, Taunton and Cape Cod; hopes for improved service and frequencies to Worcester; and at least a serious beginning on regular rail service from Boston to Springfield. And that does not take into account the fact that existing commuter rail ridership has itself been increasing quite dramatically in the past decade and will iikely continue to do so - if it can.

Critics argue that in the wake of the CA/T Project the NSRL is unaffordable, either financially or politically. We do not believe that to be the case - quite the contrary. Unlike the CA/T Project, a very significant percentage of the costs of this project would be offset by increased revenues and operating savings, even before the commercial and development income potential of the project is taken into account. Without the scale of transportation improvements that only the rail link can provide, biliiohs of dollars of development potential may be put in jeopardy and billions' of related dollars of property, income and other taxes will be foregone.

Now is the time for renewed public leadership on the transportation front. A new Massachusetts Governor will be taking office in January 2007; and in the interim, the gubernatorial candidates of.all parties will be putting forward their policy priorities and investment plans during their campaigns. In that context, we stand ready to work with our governors, our mayors, our legislators and other elected officials.to advance the NSRL Project. To that end, we will join efforts with the broad and bipartisan coalition of groups and individuals who support the need for a renewed commitment to our regional rail system and understand the unique role of the North-South Rail Link in the success of that system in the decades ahead.

That is the kind of historic civic vision'that has created in Massachusetts a pubiic transportation system that other communities are even now trying to emulate at very great expense; and that is the kind of vision that will sustain and enhance our region well into the 21st Century.

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SALEM NEWS 9/29/05

Opinion

Democrat Patrick finds support within N. Shore delegation for governor bid

MIKE DUKAKIS

REP. LAWLER (D - BEVERLY)

By Claude Marx

Democrats without previous elective experience who are not part of the political establishment rarely win the governorship in Massachusetts.

Deval Patrick hopes to defy that tradition next year. He is boning up on issues of importance to North of Boston and enlisting the help of two area lawmakers to help make that happen.

In an interview in his sparsely furnished office at his Charlestown campaign headquarters, Patrick talked about the importance of spending more money to improve the region's roads and rails. He accused Gov. Mitt Romney of paying lip service to the area's problems, but treating them with benign neglect.

(1) He promises to "bear in on" building a rail link between North Station and South Station (which Romney's long-term transportation plan rejects), work hard to expand the Blue Line toward Lynn, and find money to expand parking at area commuter rail stations. On highways, he wants the state to be more proactive in making improvements to existing roads or building new ones.

(2) "You should do the engineering (now) before you have the money for the project," Patrick said. "That way, you can move quickly when the funds become available."

The first-time candidate, attired in a blue shirt with silver cufflinks and a green-patterned tie, did not refer to notes, nor did he have to consult with his press secretary who sat in on the session

When asked about economic development in the region, he talked about statewide concerns and did not offer solutions tailored to North of Boston.

He agrees with Romney about the need to streamline the permitting process, but wants to be sure any changes don't hurt the economy. He hopes that as a Democrat working with a Democratic-controlled Legislature, he will have more success in achieving that goal.

Patrick said the caliber of the Bay State's schools is a major selling point to companies seeking to expand here. But he wants to make education quality more even and decrease the financial burden on local government.

"Too often, the kind of education you receive depends on the town or neighborhood where you live," he said. "This has been made worse by the increased reliance on property taxes because of cuts in local aid. That was reversed a bit this year, but we need to do more."

Before he can implement his ideas, Patrick needs to win his party's nomination and then emerge victorious in the general election. Those are tough hills to climb in light of the strong backing that the Democratic establishment has given to Attorney General Thomas F. Reilly.

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STATEMENT OF MICHAELS. DUKAKIS **BEFORE** THE FEDERAL RM^AY ADMINISTRATION SCOPING SESSION ON THE NORTHEAST CORRIDOR-STATE TRANSPOSITION BUILDING-August 13, 2012

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Thank you for the opportunity to address what I believe is one of the key issues involved in the expansion and improvement on the north end of the Northeast Corridor.

Let me begin by saying that the Northeast Corridor no longer terminates at South Station, if it ever did. Thanks to the success of the Downeaster, thousands of people are now taking the train from Boston through New Hampshire to Portland, Maine—and by the end of the year to Brunswick. Thousands more would do the same thing but for one missing link in the chain—our failure to connect South and North Station by rail.

In short, the North-South Rail Link must be a key part of your environmental review and of the future of the Corridor for three very important reasons. *

First, South Station is now effectively at capacity. A combination of commuter rail to the South Coast, stepped up Acela and Northeast regional frequencies, and what I hope will be progress on the Inland Route south through Worcester, Springfield and Hartford will put it well over capacity.

The current response to the capacity problem at South Station is a $32 million planning study designed to pave the way for at least a half a dozen added tracks and additional storage capacity to deal with the problem. And that project will probably cost in excess of $200 million dollars. Far better at long last to connect South and North Station by rail, eliminate any capacity problem at South Station with run-through service, and take sixty thousand cars off the road everyday while simultaneously integrating the region's commuter rail system. In fact, if a fraction of the currently allocated $32 million dollars for the planning study were used to complete the environmental impact work that has already been done on the Link, we could be well on our way toward actual work on the Link itself,

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Second, North Station also has a capacity problem that will soon be upon us. Far better to eliminate that problem as well wit^the Link than begin an elaborate process for more tracks and more storage capacity. Like South Station, neither will be necessary with through service. In fact, a number of the existing tracks at both stations will no longer be needed.

Finally, it's time we expanded our vision about what the Northeast Corridor should be as we look north to Maine and, ultimately, Montreal, The Downeaster has been a smashing success, and its ridership continues to go up and up; The extension that is currently under way to Brunswick will simply add to those numbers. There is no reason why people north of Boston should not have the opportunity to travel by train to New York and beyond vyithout having to dismount at North Station, take a cab or the Orange Line to Back Bay, and then get back on the train again. Providing through service for our neighbors to the north can have nothing but positive effects on overall ridership in the Northeast Corridor while it reduces congestion on both our regional highways and at our airports.

Finally, awvord about costs. Over the course of the past many years we have been presented with estimates of the cost of the Link that can only be described as " off the wall," ranging from 1.9 to 8.3 billion dollars and everything in between. Some of that is simply the result of incompetence or indifference. Some of it, I fear, involves the residual traumatic effects of the huge overruns on the Big Dig.

Fortunately, we know what similar projects are costing these days in other parts of the world and how much improved tunneling technology is doing to bring costs down, not up. The average per mile cost of the London Cross Rail project is less than a billion dollars. Barcelona has recently completed its 3.3. mile version of the Link under Barcelona connecting two major railroad stations for much less than that, as was outlined by representatives from Barcelona at a recent conference on rail and public transportation at Northeastern University where I teach these days.

Better yet, the Link would eliminate the need for two commuter rail maintenance facilities on the south and north sides of Boston, and a huge increase in commuter rail ridership will result in a corresponding increase in passenger revenue. In short this is a, project which at any reasonable cost should be able to pay for itself.

I strongly urge you to include the Link within the scope of your work on the Corridor. Needless to say, I and many of us here in the Boston area will be delighted to work with you on it.

Thank you.

JOHN KERRY
MASSACHUSETTS

COMMITTEES:
COMMERCE. SCIENCE.
AND TRANSPORTATION
FINANCE
FOREIGN RELATIONS
SMALL BUSINESS

United States Senate

WASHINGTON, DC £0510-2102

One Bowdoin Square
Tenth Floor
Boston, MA 02114

September 13, 2012

Joseph Szabo, Administrator
Federal Railroad Administration
1200 New Jersey Ave., SE ■
Washington, DC 20590

Dear Administrator Szabo:

I am writing in support of the proposed North-South Rail Link in Boston, Massachusetts, Currently, all trains operating north of Boston begin and terminate from North Station, while all southerly trains begin and terminate at Boston's South Station. The North-South Rail Link would connect these two stations by rail in order to better accommodate passengers already travelling on Amtrak's Downeaster and the Northeast Corridor. As such, I respectfully request that the North-South Rail Link be included in the Federal Railroad Administration's environmental review' and any future planning of the Corridor.

Massachusetts is on the forefront of improving our rail infrastructure and expanding service across the Commonwealth. With a boost from American Recovery and Reinvestment Act funding, Boston's historic South Station will add up to eleven new platform berths to allow trains from different tracks to come and go in sequence without colliding. This work would also be necessary for Amtrak and the federal government to pursue its vision of operating faster high-speed rail and more frequent service between Boston and Washington. The North-South Rail Link would., also support that service to operate even more efficiently by eliminating an onerous transfer in Boston.

As you know, the existing intercity service provided by Amtrak's Downeaster service, which runs between Portland, 'ME and Boston's North Station, is part of the designated Northern New England High-Speed Rail Corridor. The Northern New England Passenger Rail Authority (NNEPRA) intendq to expand Downeaster service from five ■ round trips daily to seven. As a longtime advocate for both commuter and high-speed passenger rail, I am encouraged by the ever growing ridership along this route. However, travelers from this route should be able to travel beyond Boston without the need to dismount at North Station, take a cab or public transit to South Station, and then continue south on another high-speed train. The North-South Rail Link will ultimately relieve congestion on busy streets, connect smaller communities to major urban areas, reduce emissions, lessen out dependence on foreign oil, spur economic growth and tourisin, and create jobs.

I urge you to include this rail connection proposal to your environmental review of the Northeast Corridor. I thank you for giving this matter your most serious consideration.

Sincerely,

John F. Kerry
United States Senator

Congress of the United States
Washington, DC 20515

October 19, 2012

Joseph Szabo, Administrator
Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Administrator Szabo:

We write to offer our comments on scoping for the Northeast Corridor Tier 1 Environmental Impact Statement (EIS), in particular .with regard to the proposed North-South Rail Link (NSRL) in Boston. As you are likely aware, theNSRL would connect Boston's North and South Stations by rail. Both stations are terminal points for Amtrak as well as regional commuter rail. operations. At this time, there is no direct connection for rail vehicles between the two stations.

There is certainly a local benefit to connecting North and South Stations. Currently, commuters traveling between North and South Stations must disembark their train and then either take a taxi, make light rail connections or walk from one station to the other. .Given Boston s geography, making this journey through congested downtown city streets takes much longer than one would expect. This situation is far from ideal and ought to be addressed.

For passenger rail travel to be truly viable in the Northeast Corridor, rideTs must be able to travel all along the line without being forced to change trains. This sort of single seat ride potential will also spur economic growth alongthe Northeast Corridor. While Massachusetts would unquestionably benefit from this, it is clear to us that linking.North and South Stations would advantage the entire Northeast Corridor.

As Massachusetts continues to invest in rail infrastructure and expanding service throughout the Commonwealth, we feel that now is the time to seriously consider the NSRL as an essential ^ component to the region's transportation plan for the 21st century and beyond. The NSRL will improve efficiency and affordability for local commuters and regional passengers as well. By offering a viable alternative to traveling by car, it will also have a positive impact, on the environment.

We urge you to include the North-South-'RaftJ-fok in-thé Northeast Corridor Tier 1 E1S. Thank you for your consideration of this maftef , „■/"/-■" ,vhV , ,,"",v **

Sincerely,

Edward J. Markey

Edward J. Markey

Michael E. Capuano

Michael E. Capuano

James

Stephen F. Lynch

Niki Tsongas

Niki Tsongas

William R. Keating

William R. Keating

COMMONWEALTH OF MASSACHUSETTS

THE GENERAL COURT

STATE HOUSE B0STON02133- 1053

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October 18,2012

Rebecca Reyes-Alicea
USDOT, Federal Railrbad Administration
Office of Railroad Policy & Development
1200 New Jersey Avenue, SE
Mail Stop 20
Washington, DC 20590

Dear Ms. Reyes-Alicea,

We are reaching out to you today in our capacity as members of the Massachusetts General Court to request that the North-South Rail Link be a key component of the Federal Railroad Administration's Tier 1 Environmental Impact Statement for the Northeast Corridor of high-speed rail (NEC).

Over the past few years, New England residents have seen the growth and success of the Downeaster service into Boston from New Hampshire and Maine, as well as the Amtrak service down to New York and Washington D.C. However, the expansion of both services is restricted and limited by a disconnection of the system at the city of Boston's North and South stations. Connecting these stations through the North-South Rail Link project would allow the NEC to reach its full transportation potential.

The North-South Rail Link is critical to accommodating the region's growth. Boston's South Station is currently over-capacity and the North Station is nearing capacity. In response, proposals have been made for costly projects in excess of $200 million to increase the number of tracks and storage capacity at both North and South Station. Such projects will be unnecessary with the construction of the North-South Rail Link and integration of the commuter rail system, which will increase capacity at both stations. Allowing for more seamless travel through Boston by commuter rail will also reduce congestion at our airports and take thousands of cars off our state highways.

Massachusetts' economic competitiveness, business climate and tourism industry will benefit from the construction of the North-South Rail Link. Currently, riders coming from North of Boston must dismount at North Station and take a cab or the subway before again boarding the commuter rail at South Station. Our constituencies, and indeed residents across Massachusetts, will benefit from the integration of the commuter rail service and the subsequent ease of travel. Therefore, construction of the rail link will serve as a job creator as we emerge from one of the worst economic recessions in history, while ease of travel will bolster the state's tourism industry as it improves ridership in the NEC.

The North-South Station Rail Link is of paramount importance, to the development of high-speed rail on the NEC. While construction of and improvements to major stations is underway in key NEC cities such as Washington, D.C., New York City, Baltimore and Providence, we see much less progress being made in Massachusetts. The rail link between North and South Stations will provide the necessary infrastructure for a gateway station to boost ridership from Boston through New Hampshire and into Maine, bringing Massachusetts up to speed with the rest of the region.

Thank you in advance for your consideration of the North-South Rail Link as a key component of the Administration's Tier 1 Environmental Impact Statement for the Northeast Corridor. Please do not hesitate to contact Senator Eldridge at 617,722.1120, Representative Smizik at 617.722.2676, or Representative Garballey at 617.722.2090 with any questions you may have.

Sincerely,

Senator Jamie Eldridge
Middlesex & Worcester

Representative Frank I. Smizik
Fifteenth Norfolk

Representative Sean tfa/balle
Twenty-Third MiddlesS

Senator Susan C. Fargo
Third Middlesex

Senator Patricia D. Jehlen
Second Middlesex

Representative Ruth B. Balser
Twelfth Middlesex

Represt fntative Chris Walsh
Sixth Middlesex

Represe tive Linda Campbell
Fifteen Essex

Representative Kay Khan
Eleventh Middlesex

Representative Jerald Â. Parisella
Sixth Essex

Representative Lori A. Ehrlich
Eighth Essex

Representative Jennifer E. Benson
Thirty-Seventh Middlesex

Representative Peter V. Kocot
F/rst *Harnnshire*

Senator William N. Brownsberger
Second Suffolk; and Middlesexy

Representative Carl Sciortino
Thirty-FourthMiddlesex

Jiepresentatiye Timothy J. Toomey, Jr.
Twenty-Sixth Middlesex

Senator Katherine Clark
Middlesex and Essex

Representative Thomas P. Conroy
Thirteenth Middlesex

Representative Denise Provost
Twenty-Seventh Middlesex

CC: Secretary Richard Davey, Massachusetts Department of Transportation

University of Massachusetts Lowell
UMASS

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OFFICE OF THE CHANCELLOR

October 11, 2012

Rebecca Reyes-Alicea
NEC Project Manager
USDOT,Federal Railroad **Ad-mini.strati on**
y 1200 New Jersey Avenue, **SE.**
Washington, **DC** 20590 '

Dear Ms. Reyes-Alicea, ' ■ . ' , ,}

As Chancellor of the University of Massachusetts Lowell, 1 am writing to express my strong 'support for NEC Future and the proposed North-South Rail Link in Boston, Massachusetts. ' -

Sustainability is an important principle for the University.'of Massachusetts Lowell. As the ■ Chancellor of an urban university, I see firsthand the challenges that our campus faces in terms of parking shortages. Over the past couple of years we have expanded opportunities for our students, faculty and staff in the area of campus transportation that include, Zip Car rentals, caipooling : programs, bike sharing and increased shuttle bus services! As a large city on the Boston commuter rail, looking at options to include additional services-for our university community with regards to rail travel have to be a key part of our alternative transportation-strategies enabling us to advance the development of an integrated .and sustainable'campus transportation system.

The NEC Future recognizes .the vital importance of continued investment in transport to ensure an efficient economy,and continued social development, but it also has the potential to.layout the necessary steps to ensure that individuals have a choice for more sustainable transportation. This important planning process is- also a responsible approach to combating the environmental effects that continued growth in demand for road transport contribute to global warming, and negative impacts to health.

Efforts to expand rail capacity and service far the Northeast Corridor would be of great benefit to the greater Boston area community. Thank yon for giving this matter your consideration.

Sincerely,

Martin T. Meehan
Chancellor

WTF a I .BcstonUSA.com

GREATER BOSTON'.;;
CONVENTION & VSSSTQRS BUREAU ■

September 6, 2012

Ms. Rebecca Reyes-Alicea
USDOT, Federal Railroad Administration
Office of Railroad Policy & Development
Mail Stop 20
120Q New Jersey Avenue, SE
Washjngton, DC 20590

Dear Ms, Reyes-Alicea:

On behalf of the region's visitor industry, I am writing to ask you to include a key issue in your environmental review study.

Thanks to the success of the Downeaster, thousands of people are now taking the train from Boston through New Hampshire to Portland, Maine—and by the . end of the year, Brunswick. Thousands more would do the same thing but for one missing link in the chain—our failure to connect South and North Stations by rail.

In short, the North-South Rail Link must be a key part of our environmental review and of the future of the Corridor. For our regional visitor industry, the Downeaster has been an overwhelming success and its ridership continues to grow. The extension that is currently underway to Brunswick will simply add to those numbers. People north of Boston should have the opportunity to travel by train to New York and beyond without having to dismount at North Station, take a cab or the Orange Line to Back Bay, and then get back on the train again. Providing through service will reduce congestion on both our regional highways and at our airports.

Thank you for the opportunity to comment and, again, I strongly urge you to include a North-South Rail iink within the scope of your work.

Sincerely,

Patrick B. Moscaritolo

Patrick B. Moscaritolo
President and CEO

TOWARD A NATIONAL INTERMODAL TRANSPORTATION SYSTEM

FINAL REPORT

National Commission on
Intermodal Transportation

September 1994

Washington, D.C.

SEE PGS 15-16

National Commission on Intermodal Transportation
301 North .Fairfax. Street /, /,
Âlèxandna, Virginia 22314

The Honorable Albert Gore
President
United States Senate
Washington, D.C.

The Honorable Thomas S. Eoley
Speaker
United States House of Representatives
Washington, D.C.

Dear Sirs:

Historically, America's transportation system has been a key factor in our Nation's development and prosperity. But, as Congress has recognized in forming the National Commission on Intermodal Transportation, this system must be improved to ensure it meets the changing needs of the Nation.

Congress charged the Commission, in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), with investigating the intermodal transportation system in the United States.

In this report, the Commission presents to the Congress, the President, and the American people recommendations to improve intermodal transportation. This report will help Congress develop greater understanding of the benefits of intermodalism and assist Congress as it considers the reauthorization of ISTEA. It will also be of value to the U.S. Department of Transportation as it develops the concept of a National Transportation System and provides leadership in developing national transportation policy. •

Therefore, I have the honor to transmit to Congress the final report of the National Commission on Intermodal Transportation, pursuant to the requirements of Section 5005 of Public Law 102-240.

Respectfully,

Robert D. Krebs
Chairman

September 29,1994

National Commission on Intermodal Transportation

Robert D. Krebs,- ***Chairman***
Chairman, President, and CEO,
Santa Fe Padfic Corporation and The Atchison, Topeka and Santa Fe Railway Company, Schaumburg, Illinois

Jacki Bacharach
President, Jacki Bacharach and Associates; Vice Chair, Commuter Transportation Services, Los Angeles, California

Kenneth L. Bird
President, Illinois Rail,
Woodridge, Illinois

Phillip D. Brady
Vice President and General Counsel, American Automobile Manufacturers Association, Washington, D.C.

Anne P. Canby
Secretary of Transportation, State of Delaware, Dover, Delaware

Wayne E. Davis
Chairman, TrainRiders/Northeast,
Portland, Maine

Thomas J. Donohue
President and CEO,
American Trucking Associations,
Alexandria, Virginia

Leon S. Eplan
Commissioner, Planning and Development, City of Atlanta,
Atlanta, Georgia

Jacqueline S. Gillan
Vice President, Advocates for Highway and Auto Safety, Washington, D.C.

Edward R. Hamberger
Managing Partner, Washington Office of Baker, Worthington, Crossley & Stansberry, Washington, D.C.

Kip Hawley
Vice President, Reengineering, Union Pacific Railroad, Omaha, Nebraska

John G. Roach
President, Roach Consulting, Development Programming Associates; and Vice President of Government Affairs, Citizens for. Modem Transit, St. Louis, Missouri

Damaso Seda
President, Transportation Workers' Union of Greater New York, Local 100, New York, New York

John W. Snow
Chairman, President, and CEO,
CSX Corporation, Richmond, Virginia

John C. **Taylor**
Assistant Professor, International Marketing, School of Business Administration, Wayne State University, Detroit, Michigan

y/tment," issued January 28, *1994.* The. y ,Rident directed all agencies to:

Seek private sector participation in infrastrüi- ■ture investment and management. Innovative public-private initiatives can bring about greater private sector participation in the ownership, financing, construction, and operation of [Federal] infrastructure programs agen- ■ des should work with State and local entities to minimize legal and regulatory barriers to ■ private sector participation.

3efore ISTEA, Federal transportation funding vas almost entirely through grants matched by hate or local funds. ISTEA opened up the playng field by encouraging additional financing ptions, including: tolls on federally aided .iglrways and bridges, private sector matches" for ISTEA funds, ability to match ederal funds through investment credit proisions, and creation of revolving loan funds. :ates are just beginning to take advantage of lese innovative financing mechanisms. Sev- ■al States, including California, Florida, Texas, vd Washington, have passed legislation to lable them to benefit from the innovative fincrng provisions of ISTEA.

March 1994, FHWA undertook an Innova- e Financing Project, which suspended many deral funding rules and regulations, and ined States to submit creative proposals for nsportation projects. Responses far ex- :ded expectations. The project's principal idusion was that multiple strategies are :ded to leverage Federal dollars and maxi- 'e investments from nontraditional sources. : Commission notes that the high number rvtermodal projects submitted is convincing imony to the institutional constraints of ding intermodal projects through convenal modal grant programs..

sxibility and Eligibility

ddition to the need for additional funds, lommission heard extensively about the irtance of allowing State and local officials :er flexibility in spending transportation Is. Senator Max Baucus of Montana ned it up:

y. ISTEA recognized that each State has different needs and priorities. New Yorkers may find that mass transit projects are the most efficient way to, .spend their pioney. Montanans need highways. ISTEA lets both make the best decision for their State. The flexibility in ISTEA is critical to good transportation policy. It lets States focus their Federal funds on those projects that make sense—rather than having Washington dictate the types of projects they must complete.

Others, while agreeing, observed that the flexibility promised by ISTEAhas not yet been fully realized. Susan Stauder of the Bi-State Development Agency of St. Louis observed, "ISTEA gives direction to be intermodal, but funding still comes out the old way—-via modal silos." T tnria Bohlinger of the Los Angeles Metropolitan Transportation Authority concurred: "the flexibility message has not really trickled down" Traditional funding systems put intermodal projects at a significant disadvantage. Paul Kaftanski, Transportation Project Manager for the City of Everett, Washington, described difficulties trying to fund construction of bus bays at the dty train station: "FHWA said it wasn't a highway project. The Federal Transit Administration told me it wasn't a transit project." His experience is not unique.

The Commission also heard that other Federal trust funds are too restrictive. For example, the Airport and Airways Improvement Act restricts use of airport funds to on-airport projects. In this funding environment, disputes arise over which sources to tap, eliciting a "not-from-my-fund" reaction, even if there is agreement on the merits of a project.

Regional and National Projects

ISTEA placed new emphasis on empowering MPOs and States to take advantage of Federal funding flexibility to meet the needs of their jurisdictions. Unfortunately/this strong local focus might prove to-be a barrier to projects of national significance that provide benefits beyond local areas./As Federal Railroad Administrator Jolene MoEtoris said recently, "the MPOs know what they need, but they may not

/ have the bigger picture^} Given the traditional ; passenger focus' of MPOs and their local po- v.: litical mandates, this appears to be a particular -• problem for freight projects. . \ •

The need for incentives to ensure funding of projects of regional or national significance was pointed out across the country. Port, rail, and truck operators expressed concerns that without such incentives, freight projects would remain unfunded.

Jean Godwin, representing the American Association of Port Authorities, expanded on this concern: "It appears that under ISTEA, national priorities are in danger of being lost in the current decision-making framework at the MPO level. We are concerned that freight projects that support the Nation's global competitiveness must continue to compete for funds under a process that inherently favors more popular local passenger and transit projects."

John Glover of the Port of Oakland concurred: "The problem with the current ISTEA process is that projects such as freight rail improvements that contribute to the economic vitality of the Nation, but do not have obvious benefits to their immediate local or regional areas, are penalized. Priority and funding need to be established for nationally significant projects."

An example is the Alameda Corridor Project in Southern California—a partnership between ports, railroads, and surrounding cities to move international freight more efficiently through the ports and to the rest of the country. Such projects should be eligible for supplemental funds from the Federal government due to their national significance.

/Similar examples exist on the passenger network. In Boston, the Commission received testimony about the Central Artery Project, originally an all-highway project that has been expanded to include a rail link to close a gap in the passenger rail- system. The rail link will connect more than 600 miles of commuter rail lines and more than 140 stations, and it will improve transportation alternatives in Northern New England by connecting the region to Amtrakj The highway portion of the project includes new port and airport access routes and removes several major bottlenecks.

Research, Education, and Technology Development

Federally supported transportation research, education, and technology development are restricted by the traditionalmodal funding system.

As outlined by Professor Michael Meyer of the Georgia Institute of Technology, there is a critical need to change how transportation professionals are educated. Meyer said to the Commission in Atlanta that "there is a need to encourage transportation educators to incorporate intermodal considerations into the classroom. Without domg so, we perpetuate the old paradigms instead of training transportation professionals for the 21st century."

The modal organization of transportation data compounds the challenge to planners trying to develop intermodal systems. As the new Bureau of Transportation Statistics observed in its first report, issued in 1994, "Substantial data exist about the transportation system, but it falls short of providing the information needed to inform policy makers about the strategic issues facing the USDOT." The Commission heard considerable testimony from State and MPO planners about the difficulty of planning and project analysis in the absence of intermodal data.

DOT's National Surface Transportation Research plan, submitted to Congress in 1993, candidly observed that, "the individual modes within DOT conduct the majority of their research independently." This is reflected in the organization of transportation research foundations, institutes, and trade associations.

The Transportation Research Board and Marine Board could assist DOT in identifying and coordinating research that cuts across individual modes. As Christina Casgar of the Transportation Research Board said, "rail, transit, waterway, aviation, highway, environmental, management and logistics issues need to be considered under one tent. Separate research approaches foster inefficiencies and encourage overlapping, if not redundant research."

United States Senate

WASHINGTON, DC 20510

May 20,1995-.

Honorable John PI. Chafee
Chairman \ .
Environment and Public Works
Committee
410 Dirksen Senate Building
Washington, D.Ç, 20510

Honorable Max .Baucus
Ranking Democrat
Environment and Public Works
Committee
458 Dirksen Senate Building
Washington, D.C 20510

Dear Gentlemen:

.As the conference committee moves toward completion of its work on the reauthorization of the Intermodal.Surface Transportation Efficiency Act (1STEA), we want you to be aware of our support for a project authorized in the House--ena.cted bill (BESTEA, Sec.- 332(a), #98) — the North-South Rail Link'. We hope the conferees will support this project by incorporating the following provision into the final legislation:

"Completion.-of the-North-South Rail Link between North Station and South Station in Boston, Massachusetts wrill close the only gap in the East Coast intercity rail passenger system. This Rail Link will greatly enhance the federaHnvestment in the Northeast Corridor by providing continuous . interstate rail service along the entire Northeast Corridor from Washington, D.C., to Portland, Maine, serving many communities in between. Similarly, the Link will enhance public investment in. the regional commuter rail network by dramatically increasing'the distribution capability and accessibility of the rail lines that radiate from North Station. The benefits of this ' intermodal project will extend to regional international airports, thus increasing efficiencies at these facilities, reducing the need for expansion and land acquisition, and maximizing high-speed rail throughout the entire region. The Rail Link project provides an opportunity for innovative financing initiatives, including public-private partnerships. $60 million, is authorized to complete the final design, éngineering and' environmental permitting necessary for the .Rail. Link, and to begin preliminary - construction,"

The 1994 Final Report of the National Commission on Intermodal Transportation, established by the ISTEA legislation of 1991, cites the North-South Rail Link as a project of "regional and national significance" that deserves federal funding (p. 16). We look forward to working with you to obtain funds needed to close the only gap in intercity passenger rail service along the Eastern Seaboard. Thank you for your consideration.

Sincerely,

Olympia J. Snowe

Susan M. Collins

James M. Jeffords

Patrick J. Leahy

Edward M. Kennedy

John F. Kerry

Jack Reed

Joseph R. Biden, Jr.
(VICE-PRESIDENT)

Johnson, Holly (EEA)

F rom : nathaniei_cu rtis@comcast. net
Sent: Friday, March 22, 2013 11:07 AM
To: Johnson, Holly (EEA)
Subject: In Support of the South Station Expansion

Good Morning Holly,

I hope this note finds you well and wrapping up your week smoothly. I wanted to take a moment and express my support for the expansion of South Station. I won't be able to attend the scoping session on Monday the 1st since that's going to be something of a jam-packed week at work so this email is going to have to do the job for me.

The expansion of South Station would confer a number of environmental benefits on the Commonwealth, both directly by allowing for expanded commuter rail service, and indirectly by making commuter rail service more reliable and the place where people board and exit trains more pleasant to use. More trains means more riders directly. Indirectly, a better experience when riding also leads to more riders and fewer drivers. I may be mistaken in this concept, but I believe that as South Station operates almost at capacity, South Coast Rail and the plan to extend commuter rail to Springfield really cannot be implemented until South Station is expanded to accommodate additional trains. An expanded South Station could also play host to additional Amtrak trains which would be in keeping with that railroad's plans to offer more and faster service in the Northeast Corridor. In the past several years, we have improved our roadway network through the implementation of the Central Artery Project, and added runway capacity at Logan Airport. It is now certainly appropriate, especially as we become increasingly concerned with global climate change and rising fuel costs, to spend some money and effort to upgrade our rail infrastructure to meet the transportation challenges of the 21st century. In the long-term, over the next 50 years, I would hope that an an expanded South Station would also facilitate the eventual full electrification of Boston's commuter rail network. Unlike the current fleet of diesel locomotives, an electrified fleet could be powered by wind, solar or biomass produced electricity and do a great deal to improve the Commonwealth's air quality. Ultimately, as we try to get people out of their cars and onto mass transit, an enlarged, easier to use, and more attractive South Station just makes sense. New York's massive East Side Access project is really setting the tone for rail infrastructure in the 21st century and we ought to be keeping up with the Joneses to the south. This is an excellent opportunity to do just that.

N-15.1

N-15.2

N-15.3

Regards & Good Wishes,
-Nate

74 Wood lawn Street
Boston, MA 02130

Johnson, Holly (EEA)

From: Frank S. DeMasi [fsdemasi@verizon.net]
Sent: Friday, April 05, 2013 2:45 PM
To; Elisa, Louis (SEAPORT)
Ce: dhadden@massport.com; Ray, John (DOT); Johnson, Holly (EEA)
Subject: Re: RE: TIGER 2013

Thanks for the info Louis...

It would be good to get Massport to reapply their TIGER Grant for extending track 61 and constructing north n-16.1
jetty. A private public partnership including the city of Boston needs to participate in any grant funding as well. Boston Terminal Co should be involved as a supporter of rail as well as the brewery and fish processing enterprises already located adjacent or in the Marine Industrial Park/North Jetty Area.

I note that the layover facility needed by MBTA should be located at Widett Circle and the location of the n-16 2
Americold Freezer there as well as food distributors should be moved into the Boston Marine Industrial Park with the needed rail extension finally constructed there. The South Station Expansion needs to reconfigure the n-16 3
Bay Junction track alignment and interlocking at the same time providing direct access to track 61 with Fairmount line access via diamond crossings over the Braintree Main Line at the former Old Colony/Red Line flyover. The D Street flyover track 61 has sat unused since constructed and seems a waste of opportunity and funds to bring rail on dock at the port. This may be a good opportuity to bring the already large investment in rail in the port area to fruition.

Regards,

Frank DeMasi

On 04/05/13, Elisa, Louis (SEA1<louis.elisa@state.ma.us> wrote:

Thanks Jeffery, we will share this information with our cities and towns as well as the other state agencies that have helped us in the past to identify and prepare grant application that have relevance to the collective needs of the Commonwealth. Our goals of intermodal collaboration have very much been facilitated by the interagency sharing of information and cooperation. I see this as a wonderful opportunity to get our collective thoughts together to strengthen any proposal that may come forward.

Thanks you very much.. .again,

Louis

Louis Elisa

Executive Secretary

Director of Port Development

Seaport Advisory Council

40 Center Street

Fairhaven, MA 02719

Phone (508) 999-3030

Fax (508) 999-6442

From: jeffrey.flumignan@dot.gov [mailto:jeffrey.flumignan@dot.gov]
Sent: Friday, April 05, 2013 12:07 PM
To: Elisa, Louis (SEAPORT); Cebula, Ellen (SEAPORT)
Subject: TIGER 2013

Louis / Ellen,

This is a heads up in anticipation of an announcement from the Secretary of Transportation of a new round of TIGER Grants to allow you as much time as possible to consider an application.

MARAD anticipates the announcement will appear very soon (don't have a date) in the Federal Register and the round will likely have a very short turnaround time. We anticipate the amount will be upwards of $ 400 million and hope that America's seaports and intemiodal systems will be well represented in the application pool and ultimately successful in obtaining a grant.

Please contact me if you have any questions and feel free to forward this to any stakeholders you feel my be appropriate.

Thanks & Regards,

Jeff

Johnson, Holly (EEA)

From: jay demasi lbroadwayjay76@gmail.com]
Sent: Thursday, April 04,2013 t;09 PM
To: Johnson, Holly {EEA}
Subject: South Stations

Hi Holly ! !
I'm .hoping we can work that SL4 route into this project at an early stage., N-17.1
I'd love to see it relocated to the Dorchester Ave side of South Sta,,
That area reminds me of Area 51 in Nevada, the way it is today! !
Thanks Holly
Jay Demasi
Silver Line Bus Operator
#65534

#15028 HD

June 20,2013

RECEIVED

JUN 24 2013

MEPA

Dear Rick:

Unfortunately we were out of the country when the time for comment on the South Station expansion EIS expired. Enclosed is a memo outlining my thoughts regarding the scope of this project, which I hope can be included in the record of proceedings.

Sincerely,

Michael S. Dukakis

June 20, 2013

To: FRA Administrator Joseph Szabo

Governor Deval Patrick

Mass DOT Secretary Richard Davey

EEA Secretary Richard Sullivan

From: Michael S. Dukakis

Re: Environmental Impact Statement for the Proposed Expansion of South Station

Unfortunately, t was out of the country when the time for comment expired on the scope of the environmental impact statement for the proposed expansion of South Station in Boston, I am very ^.^8 1 concerned about the deficiencies in the proposed scope of the study which is being funded by the FRA and am asking you to intervene and correct these deficiencies. My primary concerns are the following:

1. Those of us who support the building of the North-South Rail Link connecting South and North n_18 2 Stations by rail as a much more effective response to the congestion problem at South Station than further expansion do not expect the Secretary to mandate, in his words, " improvements that include underground rail tracks and platforms for the North South Rail Link Project." What we do urge him to do is include the NSRL as an alternative in the review of the Project to confirm that the most appropriate option is being pursued. For example, the draft scope asserts a need for substantially more midday layup/layover space by 2045. The NSRL would completely obviate the need for such space and any need to expand South Station other than to provide access to the NSRL tunnel. Yet the tunnel is not evaluated as an alternative. It should be.

2. The ENF refers to the NSRL environmental analysis but does not explain how the need for track ^.^8 3 approaches to the tunnel can be integrated into the track and switch and signal modifications contemplated for the South Station expansion. This analysis is critical and should be required.

3. The ENF refers to the intent to run Inland Route service through AElston to Worcester, Springfield, N-18.4 Hartford and New Haven to New York. With the relocation to Worcester of the CSX freight facility in Beacon Park Yard , the serious one-track constraint in Ailston can finally be relieved. Yet the draft scope proposes to waste the opportunity in Ailston for dramatically improved commuter rail and Inland Route service by placing midday layup/layover in the way with no analysis of the adverse impact on Inland Route potential. A serious study of how to optimize Inland Route services, as well as preserving freight connectivity with a revised track and signal configuration through Ailston, should be required as part of the South Station EIS.

4. **The draft scope does not explain how the one billion dollars to relocate the Post Office and expand South Station can be funded. Moreover, the state has asserted that the NSRL would cost over six billion dollars. That estimate is patently absurd. Rail tunnels are being constructed all over the world at a per mile cost dramatically lower than the state's estimate. For example, the** N-18.5 N-18.6

Los Angeles Regional Connector in downtown Los Angeles is currently under construction and will integrate the rapidly expanding Los Angeles subway system. It is 1.9 miles long—substantially longer than the NSRL- and includes three new stations. Its cost is $1,395 billion.

5. **With the Obama administration proposing to spend $40 billion on improved passenger rail, now is the time for an honest look at the numbers and for developing a plan that can not only fully integrate our commuter rail system but that will make it possible for high speed trains in the Northeast Corridor to proceed under and through Boston to northern New England and Montreal. Our Canadian neighbors are particularly interested in partnering with us on such service. I realize that Congressional action to fund the President's vision will be a difficult fight, but this FRA-funded study should develop the blueprint to move forward, not backward.** N-18.7

6. **Expanding South Station does nothing for the growing congestion at North Station. Seriously considering the NSRL as an alternative to South Station expansion would solve that problem as well.** N-18.8

Stephen H. üàser
101 Hamilton St
Cambridge Mass 02139

To : Secretary Richard K. Sullivan, Jr.
Executive Office of Energy and Environmental Affairs
Attention: Holly Johnson, MEPA Analyst
Email: Holly.S.Johnson@state.ma.us
100 Cambridge Street, Suite 900
Boston, MA 02114

From : Stephen H. Kaiser

Scope for South Station Expansion, Boston, EEA # 15028

The ENF and the Consultation meeting on April 1 were encouraging for me, because they both were clear and thorough, were focused on an EIR, listed all permits and government actions, discussed the alternatives, and submitted early to MEPA at only a 5 percent level of design. My comments below will concentrate on those elements that should be within the scope of an EIR, and will express no preference for any given alternative until the Draft EIR is submitted.

Alternatives

I suggest a variation on the build alternative, such that there be no 1,000 parking increase, but only minimal service parking. The overall transportation plan should be a combination with increased access from Commuter Rail, Red Line, commuter bus and Amtrak. Such an approach would be more compatible with the MBTA responsibilities to provide regional transit service. N-19.1

In the 1980s, the Green Line relocation from elevated Causeway to a tunnel/garage proposal became quite controversial. The MBTA was split down the middle, with some employees rejecting the scheme because it was not appropriate for the regional transit agency to be building a downtown parking garage. What was the transit connection with that garage?

At South Station there should be a full discussion of MBTA sponsorship of a development project which might include an increase in downtown parking, whether constructed with public or private funds.

For all alternatives, an assessment should be made of both pedestrian access through Dewey Square and Red Line capacity. MassDOT should already be planning N-19.2

for various Red Line scenarios. At one optimistic level there could be new cars purchased to replace 43-year old Red Line cars, as well as funds to increase service. These operational changes could allow more trains, with more capacity and service on the Red Line. At the other extreme is no funds for either new or rebuilt Red Line cars, and a continued deterioration of Red Line service. Either way, operational improvements could include achieving evenly spaced train headways, rather than the typical span today of two-minute to ten-minute measured headways at Park Street. N-19.2 (cont.)

The storage/layover options should include an identification of track configuration, storage of trainsets, and the need for drill track operations. Expanded commuter rail service should also consider the potentials for improving or worsening the danger of track arrangements that include the notorious "malfunction junction." The analysis should identify any critical switch in the system that would shut down commuter rail functions at South Station if the switch were blocked or damaged. N-19.3

All alternatives should preserve the option for a North-South rail link, with at least one window or corridor space protected for a future 4-track rail tunnel. Efforts should be made to identify a secondary option for the corridor as well. N-19.4

Chapter 91 Tidelands

For Chapter 91 interests, the MassDOT proposals to open up public access to Dorchester Avenue are an important step forward from the Postal Services reclusive restrictions on Dorchester Avenue. Fort Point Channel is further rejuvenated. EIR analysis should document the DEP designations of historic low-water and high-water lines, with clear designations of private and Commonwealth tidelands. From mapping done so far, it appears that the south station site is about 2/3 private tidelands and 1/3 Commonwealth tidelands. The EIR should make clear the different levels of tidelands protections offered for private vs. commonwealth lands, consistent with the findings of the Boston Waterfront case (1979) and the Opinions of the Justices (1981). N-19.5

Mahajan vs. DEP (2013) developed into a combination of a Chapter 91 appeal mixed with considerations of Article 97 protections. However, neither the plaintiffs nor defendants attempted to argue or find out whether tidelands are subject to Article 97 and its requirements for a 2/3 vote in the legislature. Under what conditions are tidelands (filled or unfilled) generally subject to Article 97 protection? How would those conditions be applied to the South Station site? N-19.6

Existing conditions prior to any Chapter 91 licensing should be clearly established. The ownership of land and status of any legislative action at South Station must be documented. In the 1600s, the original First Point channel was owned by the Commonwealth. When did the New Haven.and Hartford railroad purchase its fee ownership? When, if ever, did legislative action to buy or sell land at South Station occur? N-19.7

When did the Postal Service acquire its land, and did its actions as a Federal agency override all state concerns, such as Chapter 91? What were the historical filling licenses granted by the state to place solid fill in tidelands? Were any of the licenses ever revoked or made permanent? Does the state have easements in the tidelands at South Station? N-19.8

Air Pollution

With a larger area of track coverage at South Station, locomotive emissions may be both bigger and more confined. How will the track area be ventilated? What will be the effect of retaining the high polluting F40 locomotives, compared to new or retrofitted locomotives? Could diesel odors intrude into South Station itself? N-19.9

One obvious problem with the old Spaulding Hospital at North Station was its proximity to the North Station tracks and the idling locomotives. The smell of diesel exhaust was evident within the hospital, possibly from roof intake systems and rising exhaust from the locomotives. At South Station, how are nearby building ventilation intakes protected from diesel emissions?

Public-Private Partnerships

Any arrangements between MassDOT and private developers must be reviewed for compliance with Article 7 of the Declaration of Rights of our state constitution: N-19.10

> Government is instituted for the Common good ... and not for the profit, honor, or private interest of any one man, family or Class of men.

By Article 7, the purpose of government cannot be for the profit of private developers, and must instead be for the common good.

Historical Compliance with MEPA

The focus of the South Station Expansion project begins with South Station itself. Thirty years ago it was a forlorn structure, partially derelict, with broken down wooden fences, and pigeons fluttering around the dark and dirty interior. It is difficult to see today's South Station and remember the dreadful conditions of 30+ years ago. Truly revitalizing a functional historic.structure may well be the finest achievement of Fred Salvucci, more than the controversial Big Dig project.

Compliance with MEPA is another question. The Draft EIR for South Station included the electrification of the Amtrak lines to the Rhode Island border. The N-19.11

Certificate of the EOEA Secretary at the time asked questions about energy efficiency of electrified rail, and other matters. When the Final EIR for South Station was submitted by the MBTA to MEPA, it saw sent back — because it did not include the Secretary's Certificate and a response to it. Over the following years, no FEIR with a response to the Secretary's Certificate was sent to MEPA. An appendix to the FEIR was submitted by the MBTA and reviewed by MEPA, but there was no MEPA certificate saying that the Final EIR as a whole complied with Chapter 30 Section 62. N-19.11 (cont.)

It is ironic that one of the best projects ever done by the state - the renovation of South Station — should be burdened with an incomplete MEPA process. I have communicated with MEPA and the MBTA over the years about the missing compliance, without ever receiving a reply.

The best response would be for the MBTA to prepare a new Final EIR for South station #3205, describing its transformation and usage over the years, and making the document into a tribute to the contribution of Fred Salvucci and his team towards this effort. Mike Dukakis should surely be mentioned as well. The Secretary's Certificate can be included, as well as a suitable response.

Clearing up the legal questions over South Station #3205 could also clear up legal obstacles to South Station Expansion and the Hines tower project.

Histori cal/Architectural

In the entire South station block, the only admirable structure historically or architecturally is the station headhouse. Its architectural virtues stand out from any elevation and direction, except for the sidewalk pedestrian standing right next to the building and who is not prepared to appreciate the massiveness of stone construction.

The headhouse is unfortunately dwarfed by One Financial Center and the brutalesque Federal Reserve Building, Erecting the Hines tower into the heart of South Station would be the third insult to the grandeur of South Station.

While I believe that the Hines tower should be moved a good distance away, there is nothing that MEPA and other state agencies can do, now that the Hines Tower has passed through MEPA review. The visually overbearing nature of this tower will have widespread impacts. One virtue is that the new development buildings shown on MassDOT planning model have a vastly lower profile, and serve to give South Station the respect that it deserves.

Legitimate questions arise for South Station and its concourse. The restoration of three decades ago preserved the exterior and provided an exhilarating human experience inside as well. What will the concourse experience be if natural light is blocked out, or areas of high ceilings are diminished by new building intrusions? N-19.12

We can learn so much from the experience of New York's Grand Central terminal and the magnificent waiting room, with the sun cascading in the windows. Humane priorities will say that Grand Central gets higher marks for its interior than for its exterior.

By contrast, Boston's North Station is -- like Penn Station with Madison Square Garden atop - a disappointing afterthought. North Station has a low ceiling, many obstructive posts, and strolling pigeons. South Station does not. North Station is bloodless. South Station is not.

I suspect that South Station and Grand Central work better because transportation was set first as a value and has been so for over a century. As soon as we start mixing in private development priorities, other priorities take over, and we end up with cramped and inelegant waiting areas squeezed under non-transportation structures overhead. The public purpose gets derailed, and citizens are left to ask : how was this allowed to happen?

Sincerely,

Stephen H. Kaiser, PhD

April 1,2013

Stephen H. Kaiser
191 Hamilton St.
Cambridge Mass. 02139

To : Secretary Richard K Sullivan, EEA
Attention : MEPA Office, Holly Johnson

From : Stephen H. Kaiser

ENF for South Station Expansion, EEA #15028

As part of my public comment I am hereby submitting a copy of my analysis of Article 7 of the Declaration of Rights of the state Constitution, entitled ***Treatise on Article 7 of the Declaration of Rights of the Massachusetts Constitution***, dated January 2013, first edition. Article 7 requires that all actions of government be for the common good and not for the profit of any man, family or class of men. Such a restriction has application to the option for additional parking at South Station and to any public/private arrangement for the development of the site.

Sincerely,

Stephen H. Kaiser, PhD

Treatise on Article 7 of the Declaration of Rights of the Massachusetts Constitution

INTRODUCTION

The Massachusetts State Constitution begins with a brief Preamble, followed immediately by a Declaration of Rights. Article 7 of the Declaration lays out a surprisingly short and simple statement of both the positive and negative goals for our government :

> ***Article 7 : "Government is instituted for the common good; for the protection, safety, prosperity and happiness of the people; and not for the profit, honor, or private interest of any one man, family, or Class of men... "***

The second half of Article 7 asserts the right of the people to create a new form of government — especially when government officials do not live up to the stipulations for the common good and against profits :

> ***"Therefore, the people alone have an incontestible, unalienable, and indefeasible right to institute government, and to reform, alter and totally change the same, when their protection, safety, prosperity and happiness require it "***

The Preamble also asserts the right of the people to change their government whenever these goals "are not obtained." The preamble elaborates on the goals of government for the common good, and how Government is necessary for the "body-politic" to function :

> ***"The Body-Politic is formed by a voluntary association of individuals. It is a social contract, by which the whole people covenants with each Citizen and each Citizen covenants with the whole people, that all shall be governed by certain laws for the common good. It is the duty of the people, therefore, in framing a Constitution of Government, to provide for an equitable mode of making laws, as well as for an impartial interpretation, and a faithfid execution of them; that every man may, at all times, find his security in them. "***

Several other Rights offer support to Article 7 and help identify the elements of the common good. Article 1 identifies for all men the natural right of *"enjoying and defending their lives and liberties; that of acquiring, possessing and protecting property; in fine, that of seeking and obtaining their safety and happiness. "* The preamble together with Article 1 focuses on the laws for the common good, combined with the rights of safety, prosperity and happiness.

The remainder of the Constitution and General Laws can be fairly described as an engineering specifications - defining the structure and workings of the new government. Only in these early sections on rights shared values is the magic of this new form of government illuminated.

The wording of Article 7 does not appear highly technical, but its underlying complexity arises from crafting clear definitions and rules of application. Different sets of values come into play. Agreements and understandings become badly tangled up in controversy. The challenge is sufficiently great that few legal commentaries exist, and case law is. virtually non-existent. In retrospect it would seem that the legal profession simply ducked the issue.

By contrast, the ancient Greek philosophers engaged in the earliest and deepest thought. Socrates and Plato dealt at length with societal concepts of the "good." Aristotle appears to have been the inventor of the term "common good" and its application to an assessment of governments. Among the Romans, only Cicero seems to have sought a functional meaning as applied to real world governments and the laws. Not until the late 18th century times of the Enlightenment activists were natural rights and the common good applied to the Constitutions of real governments.

Article 7 presents us with two key mandates : one desirable and one undesirable. It is ***illegal*** if a government action does noi serve the common good. ***All*** government actions must clearly service the common good.

It is ***illegal*** if government actions result in profits for select individuals or groups. ***All*** government actions must exclude such illegal profits.

The task of this treatise is to assemble materials from various sources and apply additional analysis to yield an improved understanding of where Article 7 would take us, were it to be treated as a bona fide law that would affect the behavior of governments. In a practical world, one could ask : what changes should occur in decisions about zoning, subsidies, tax breaks, contracts, and all selective government-related benefits? The combination of concerns for the common good and against selective profits would have great implications for corruption and other criminal behaviors by public officials.

Support for the Common Good

Article 7 specifies a purpose, the basis for an ethical form of government. The political challenge is to focus on the ***general or common objectives*** of government actions, while critiquing the private and the select activities that may favor the private good in society. Private good is linked in part to the "profit, honor or private interest" for a specialized segment of the populace, as opposed to the general or common citizenry. To the extent that such profiteering is excessive, it may be simple avarice. It become more or an evil than a good.

Article 7 goes further than the Preamble by limiting the ***only*** function of government to serving the common good, and not the private good. Nor can it do a little bit of both. It is **all or nothing** — for the common good.

Article 7 does not tell us who defines or determines the common good in practical terms. The accumulation of court cases and the understandings compiled in case law could be one valid approach. Another option is the assembled Legislation — shorn of contradictions — to identify those government actions that do or do not serve the common good. An elitist approach would be to assign the task to enlightened and sensitive experts or to an aristocracy of Wise Men and Women. Furthermore, the values of society are constantly changing, so a public sense of the common good may gradually change as well. A vivid example is same-sex marriage and the dramatic shift in public and legal opinion in the past decade (*Goodridge* v. *Department of Public Health).*

Neither courts nor Legislatures are perfect in their decisions. But both over time are called upon to issue judgments in the public interest. For better or for worse, the practical way they go about this task can be informative.

We are at the very beginning stages of understanding what Article 7 means for society in the 21st century. For this reason, this treatise cannot include such a legal and legislative review and assemble a comprehensive list of government actions that do or do not serve the common good. Some individual examples are obvious — such as police, fire, hospitals, public schools, anti-slavery efforts, water supply and sewers. Clearly negative examples are hazardous waste dumps near populated areas, bribery of public officials, child abuse and general criminal activity. Between the negative and the positive is a gray area of controversy : gambling casinos, assault weapons, abortions, tax breaks, and the benefits or burdens of technology. As noted earlier, some issues have been transformed from anathema to general popular acceptance : the abolition of slavery, equal voting rights, and same-sex marriage.

Limitations on Profits

In no other state constitution is there anything like Article 7 of the Massachusetts Declaration of Rights with its specific restriction against special profits. It is important to recognize that the profit restriction is limited. Private profits are allowed when -- without government intervention — private interests engage in legal business within our capitalist/free enterprise system. Article 7 sets limits only on government actions that directly ***increase*** special interest profits. It does not affect government actions that ***decrease*** profits. It does not forbid actions where ***everyone*** profits.

Despite our national participation in a dynamic world economy, there is remarkably little discussion among economists of capitalism and profits. Article 7 tells us that indeed, capitalism does exist in our society, but it is limited in certain ways whenever government acts. Economists understand that in certain cases there are limits on profits of such things as public utilities. There are anti-trust laws that exist to prevent excessive profits from monopolies or anyone engaged in restraint of trade, price fixing, price gouging, or producing products dangerous to the public health. All of these concerns are part of a conventional regulatory structure of government Article 7 tells us that there should be an additional element — one that prevents special interest profits caused by any government action. Article 7 does not forbid greed or profit, but simply states that government shall not facilitate such activity in a selective way.

The strict nature of Article 7 leaves little room for compromise. Where a private interest has achieved a profit from government action, it is not'sufficient for that private entity to "kick back" some fraction of that profit to community benefits — or to politicians and agency officials or board members. The ***entirely*** of the profit must be surrendered. An example would be an upzoning action at the local level, where all affected property owners would pay back to the government the increased value and revenues that would be counted as profits from government action. Article 7 would imply that the reimbursement must be ***total*** It cannot be a partial or token payback of landowner benefits.

The historical context of Article 7 is easier to understand if we imagine a somewhat conservative Federalist John Adams writing up the Constitution in 1780. He and his fellow colonialists had suffered unpleasant experiences with the East India Company and related British taxes designed to favor the company (see Appendix F). Their non-radicalism is shown by the success in persuading both American and British business groups to oppose the Tea tax and other impositions. The idea was that honest and fair businessmen should oppose selective favoritism.

Ethical Implications

The ethical implications of Article 7 are quite astounding. If we could ever achieve full compliance with Article 7, ail corruption in government would stop. Corruption is basically giving special favors and riches to the select few. Both government officials and lobbyists would be unable to reap financial benefits.

Case Law

A preliminary review of Case law shows a scattering of cases seeking to use the **common** good clause to promote government reform on certain issues, such as same-sex marriage, fair competition in business, veterans preference, or matters of welfare equity. There is no evidence of any court case dealing with *profits* to private interests from government actions. Nor are there examples of citing common good or profit as a weapon to deal with public corruption.

It appears that any legal challenge to government actions to allege inconsistency with the common good or to cite special interest profits could be an entirely new issue to place before the courts. The concerns have never been tested.

State Constitutional Law

Generally our society seems at peace with its state constitutions. Ferocious battles over the ***Federal*** Constitution may occur, but with rare exceptions (such as same-sex marriage) state constitutions are treated like a dowager empress : to be respectfully allowed to rest in comfort. If we don't bother her, she will not bother us.

This situation is quite puzzling because by law -- by the Constitution itself -- every elected and appointed public official must take a solemn oath to support the Constitution. One suspects that most of these officials have little idea of the document they are sworn to uphold.

Article 7 is reality. It is the law, and it is the highest law in the Commonwealth — short of the U.S. Constitution. If the state Constitution is moribund today, this condition is wrong. It is important for all municipal agencies, all state agencies, the Legislature and the Governor to be aware of the primacy of the state Constitution.

V"

Our constitution should be a document that is alive, that has a unifying effect, and that stimulates everyone from citizens to judges. It should give meaning and purpose during those times when society settles into patterns of moral drift.

Article 7 and the Constitution generally are the province of the state Supreme Judicial Court for interpretation of meaning and precedent. Such interpretation is not the duty of the Governor or the Legislature. The state Constitution and its interpretation should be reasserted as the guiding force for our laws, thereby reducing the role of well paid lobbyists. It may well be that the avenue for obtaining a definitive clarification of Article 7 may come from a court appeal that reaches the Supreme Judicial Court.

Origins of the Treatise

The idea of a treatise on Article 7 can be traced back to May 2011, during public discussions before the Cambridge Planning Board and City Council. The issue was a theoretical one whether a downzoning could result in a reduction in value of properties and hence a claim could be made for damages payable by public agencies. Simple logic would suggest that an ***upzoning*** of property should result in an increase in the property values and hence full compensation to the city should be paid by the landowners who benefit from the upzoning.

A brief dialogue ensued between this author and Cambridge Attorney James Rafferty, who offered a contrary interpretation. He promised to prepare a "Treatise" on Article 7, and to compare it critically against current rules for development in the City. These rules that all developers must follow have been described as "Pay-to-Play."

A good dialogue is always welcome. But when no such treatise appeared in over a year, the best course of action appeared to be to prepare a treatise under a different authorship and perspective. I recognize the concept of a treatise on Article 7 is an original concept from Mr. Rafferty. I have proceeded to produce my version of the treatise without the benefit of seeing his contribution.

Outline of the Analysis

The first task will be to elaborate on the meaning of common good, both before and after acceptance of the state Constitution in 1780. Consideration will be made of the view of allies to the concept of the common good, as well as the detractors.

The second task will be to identify the limits and applications of government-induced profits to special interests. This effort will include a review of possible motivations for the unique reference to profits in the 1780 Constitution, in order to understand historical intent.

The final task will be to apply the meaning of Article 7 to actions by City and State governments and determine where policies will need to be revised to comply with the requirements of Article 7.

Relevance of our state Constitution may have been diminished by the decline of the Enlightenment. That decline was triggered by experiences with the French Revolution and the Industrial Revolution. In America, the past two centuries have seen a Civil War, a Gilded Age of business excess and related class warfare, two horrendous world wars, and a long Cold War. Anyone could logically conclude that modem history has offered less than fertile ground for an improved understanding of the common good.

An historical view begins with Plato and Aristotle, and passes through St. Augustine and St. Thomas Aquinas into the Renaissance and the growth of humanistic thinking that led to the Enlightenment. A bitter conflict threatened the cohesiveness and common purpose of the early Massachusetts colony, starring two religious zealots -- John Winthrop and Anne Hutchinson. As an immediate stimulus for the American revolution, a stubborn and recalcitrant King George III and Parliament orchestrated the "perfect storm," unleashing the ideals of the Revolution and the various state Constitutions. Key personnel are Montesquieu, Rousseau, George Mason, Thomas Jefferson, John Adams, and James Madison.

A Brief Historical Review

The earliest references to the common good appear in Aristotle's ***Politics,*** as good and bad governments are evaluated by success in providing for the common good. Aristotle's concepts were carried through the early Roman times by Cicero, but the constant appearance of various tyrants prevented the idea of the common good from being established during the Roman era.

Aristotle's concepts of common good were extended in the early fifth, century by an Irish monk named Pelagius, who advocated a policy of good works as an alternative to predestination, original sin and rigid allocations of grace. Good works represented efforts to help society in general. Pelagianism claimed that doing good works was a way of winning God's grace and a successful afterlife : the good done during one's stay on earth was meaningful. Pelagius had the misfortune of running afoul of St. Augustine and his allies, at a time the Roman empire was being battered by invading Vandals. Pelagius was crushed by Augustine, and in the subsequent Dark Ages good works and the common good were forgotten. Augustine's views held sway for another 800 years.

The beginning of the Medieval era triggered by the outreach of the Crusades produced an influx of Arabic knowledge into northern Europe. Arabic translations of Aristotle were introduced. By the thirteenth century St. Thomas Aquinas succeeded in resurrecting Aristotle's philosophy within the church. Aquinas distinguished between three types of good : an Ultimate good in God's world a common good in this world ....and a private good. He saw the priorities as being in precisely that order. This contrast between private and common good is not explicitly mentioned in the Massachusetts Constitution, but it is implied.

Author Robert Nisbet recognized a common theme along almost all the philosophers from the ancient Greeks to the 20th century* :

> ***"Different as are the writings and ideas of Plato, Aristotle, Augustine, More, Machiavelli, Hobbes, Rousseau, Marx, Tocqueville, and Kropotkin, all may be seen, from at least one great vantage point, as minds tormented by fear of the social void and in search of redeeming, fulfilling community. "***

Indeed, the "redeeming, fulfilling community" could be seen as one definition of the common good.

Anne Hutchinson and John Winthrop

On 1987 then Governor Michael Dukakis pardoned Anne Hutchinson to revoke the order of banishment initiated by John Winthrop in 1638, Hutchinson and Winthrop were both fierce-minded neighbors, but on opposite sides of virtually every religious belief in colonial Boston (see Appendix B). She engaged in independent leadership and made accusations about the local leadership, while he felt increasingly threatened and offended. They saw each other as heretics and troublemakers. The ultimate collision occurred in a special politico-religious tribunal of the Great and General Court, with Winthrop ultimately destroying Hutchinson and her supporters and banishing many of them. While seen be many liberals as a feminist heroine, she was an advocate of a highly traditional, even retrograde, "covenant of grace" espoused by St. Augustine in opposition to Pelagius. The contest became a colonial war of the religious factions.

** **Robert Nisbet,** *The Social Philosophers,* **Paladin Publishinc. 1976. n 446**

During the 1630s, the Boston colony struggled to establish its own way of life, including provisions for lands held in common and shared among the residents (see Appendix E). Today, only Boston and Cambridge Commons have survived. The ideal of harmony in the New World was difficult to achieve.

In the end, Hutchinson was banished to Rhode Island and later to Long Island. Through a peculiar irony of history, the Hutchinson River in New York City was named after Anne, and in 1928 the Hutchinson River Parkway was opened. Meanwhile, the Massachusetts community of Winthrop had been named after John Winthrop, and in 1909 the state constructed the Winthrop Parkway. Both of the protagonists of 1638 have had state parkways named after them — a form of reconciliation denied to them during their lifetimes.

The American Revolution

The American Revolution grew to maturity in the "perfect storm" of outrageous conduct by the King of England and the British parliament over the period 1765 to 1782. The litany of these outrages is summarized in the Declaration of Independence, listing all of the offenses that had driven the colonists to rebel and seek their independence. An overpowering resentment against the abuses of tyranny produced a reaction that sanctified rules by the people.

In June 1776, Adams served on the drafting committee for the Declaration of Independence. The first accusation of "repeated injuries and usurpations" by King George HI was that "He has refused his assent to laws the most wholesome and necessary for the ***public good."*** Typically, the terms "public good" and "common good" are used interchangeably.

With the realization of independence, colonists pressed forward with ideas for the proper form of government — what King George had denied them : a government responsive to the needs of the people. The protection of all citizens was envisioned by George Mason in 1776 in the form of the ***Virginia Declaration of Rights.***

Many of the concepts of Mason's ***Declaration*** were carried over into the Massachusetts Constitution in 1780, as drafted by John Adams. In Article 7, Adams prescribed the positive goal as a common good, while he disallowed government-stimulated special profits. The Massachusetts Constitution is the only one in all fifty states that is explicit about limiting profits.

Modern Interpretations

The frequent modem response is to view "common good" as an idealistic anachronism, as a topic for idle discussion by philosophers. Critics routinely ignore the issue, preferring to bypass consideration of the common good as a serious topic. One of the few exceptions is renowned economist Joseph Schumpeter, who in 1942 submitted an essay to discredit the credibility of the common good.

Schumpeter sought to tie common good to the idea of the General Will as advocated by Rousseau. The tactic was effective, in that Rousseau is usually seen by modem commentators as an erratic and radical father of the French Revolution. Schumpeter also sought to discredit common good by claiming that the term is undefmable and hence should be discarded.

His major error was in trying to suggest an alternative. He proposed a form of government whose only obligation was to win periodic elections. Once the government was elected, they were free to do anything they wished until the next election. From a current day perspective, this view is too reminiscent of the philosophy of Karl Rove and Dick Cheney, with their all-expansive perspective on government power. Schumpeter made the mistake of proposing a government with no sense of the common good.

In sum, the Schumpeter critique of the common good is neither persuasive nor useful in any way. Yet his essay is the only text that has been offered to rebut the ideal of the common good.

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By contrast, the Catholic church has been far more active in addressing the issue of the common good. In the aftermath of the Wall Street meltdown of 2008, Pope Benedict XVI expressed official concerns about modem capitalism, with the growing divide between rich and poor. He urged the establishment of a "true world political authority" to oversee the economy and work for the "common good." He perceived current economic systems, "where the pernicious effects of sin are evident," and asked financial leaders to "rediscover the genuinely ethical foundation of their activity." This view of the good and bad sides to economic activity suggests a parallel with John Adams over two centuries earlier.

The Pope called on business to exercise "greater social responsibility" in their daily activities. "Once profit becomes the exclusive goal, if it is produced by improper means and without the common good as its ultimate end, it risks destroying wealth and creating poverty," Benedict wrote in a 2011 encyclical. He asserted that "Financiers must rediscover the genuinely ethical foundation of their activity, so as not to abuse the sophisticated instruments which can serve to betray the interests of savers The so-called outsourcing of production can weaken the company's sense of responsibility towards the stakeholders — namely the workers, the suppliers, the consumers, the natural environment and broader society — in favor of the shareholders One of the greatest challenges facing the economy is to achieve the most efficient use — not abuse — of natural resources, based on a realization that the notion of 'efficiency' is not value-free." *

In his annual message on peace, January 1, 2013, the Pope criticized capitalism and economic inequality. He identified "hotbeds of tension and confrontation" caused by "the prevalence of a selfish and individualistic mentality also expressed by unregulated financial capitalism." He criticized economic models that seek to maximize profit and unnecessary consumption, while stimulating competition at all costs.

The Catholic church has been careful not to become ensnared in controversies of evolution and Darwinian theories. However, certain Darwinian spinoffs into the social and especially the economic sphere have resulted in an exultation of "survival of the fittest" in the same sort of competitive excesses identified by Pope Benedict. The result is a societal fragmentation into cliques and factions, dominated by aggressive individualism. Charles Darwin the scientist provided a technical description of a process of survival in the natural work, but also realized much of the nastiness and insensitivity of the process. He was strongly opposed to slavery. Were Darwin alive today, he would likely find much in the Pope's comments to agree with.

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* New York Times, July 7, 2009

Successes and Failures

Seeking to engage in good works with society and government has produced an inconsistent history of successes followed by failures. People like Mahatma Ghandi and Martin Luther King are revered for their upright moral leadership. But there have been enough failures to evoke the cynic's witticism that "No good deed goes unpunished."

The most positive example is that of William Wilberforce, who succeeded in abolishing the slave trade in England and influencing other countries to abolish slavery. As leader of the anti-slavery campaign between 1787 and 1807, he spent twenty years of his life patiently working to abolish the slave trade in the British colonies. He established the first successful abolitionist movement and did so motivated by Christian principles of morality. He converted to Methodism and later to Christian Evangelism. His primary weapons were reason, moral propriety, and patience.

A few years earlier in Massachusetts, slavery had effectively been banned in 1783 by the action of Judge William Cushing, the chief justice of the Supreme Judicial Court of Massachusetts. Cushing wrote in his notebook that "there can be no such thing as perpetual servitude of a rational creature." When the judge gave his instructions to the jury, he explicitly declared slavery violated the new Constitution of Massachusetts : "I think the Idea of Slavery is inconsistent with our own conduct & Constitution..."

Historian Henry Steele Commager observed : "how fascinating that one man, Judge Cushing ... got rid of slavery in Massachusetts. He said, 'The Constitution of Massachusetts says that all men are bom free and equal, and that means there cannot be slavery in the state.[1] And that was the end of it." *

Wilberforce, as a legislator, decided to take the long legislative route of changing the laws. Ultimately he was successful. Judge Cushing acted in a judicial appeal to the Massachusetts highest court, and the result was quicker but similarly decisive. An SJC decision on slavery in Massachusetts would seem a precedent for an SJC decision on Article 7.

Since 1807, social progress has been slowed by contrarian court decisions and resistance in the legislatures. A Federal judge could have ruled slavery illegal nationwide, just as Justice Cushing did. Similar judgments could have been issued allowing women to vote. Federal court rulings were effective in advancing the desegregation of interstate buses, schools and other facilities, but only after earlier Supreme Court decisions had stalled anti-discrimination efforts for half a century. Lincoln's Emancipation Proclamation became possible to two reasons : Union success at the Battle of Antietam, and the ability -- during a Civil War and with Southern states in secession — for the President to issue his decree. Ridding society of the evils of slavery and segregation was an extremely difficult and drawn-out proposition.

The negative history of the common good ideal has jointly been a failure to strengthen and enforce those aspects of the common good that are explicit or implied in the legal statute, as well as a failure to achieve a consistent record of achievement in the way governments actually work. It would appear that governments follows the easier path of operating for the benefit of special interests.

** Henry Steele Commager, in Moyers, A World of Ideas, Doubleday, 1989. p, 227*

In the absence of clear standards and limits of behavior, our presently weakened concept of the common good has great difficulty asserting itself against the pervasive powers of greed and selfishness and the lobbying pressures of special interests. There are other situations where simple power predominates over greed.

Enforcement of Article 7 would provide for a stronger division between government and business. President Dwight Eisenhower was one of the few top officials who recognized the corrupting influences when governments and other institutions become too large and functionally intertwined. He addressed this societal danger in his Farewell Address in 1961, when he warned the nation to be on guard against a military-industrial complex :

> ***"In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together.... "***
> ***"In the same fashion, the free university, historically the fountainhead offree ideas and scientific discovery, has experienced a revolution in the conduct of research. Partly because of the huge costs involved, a government contract becomes virtually a substitute for intellectual curiosity. .... The prospect of domination of the nation's scholars by Federal employment, project allocations, and the power of money is ever present and is gravely to be regarded..... Yet, in holding scientific research and discovery in respect, as we should, we must also be alert to the equal and opposite danger that public policy could itself become the captive of a scientific-technological elite. "***

Of the immense shift in economic and political power, Eisenhower warned "we must not fail to comprehend its grave implications." The same claim could be made of modem developers and the megacorporations they serve, and that a separation between business and government is as important as a separation between church and state.

Joyce Appleby in her history of the power of capitalism, concluded that there is a danger in both the concentration in power and any collaboration between the powerful.

> "The danger of concentration is even greater if the two leviathans in our lives — the government and the economy -- read off the same profit sheet. When government works hand in glove with the nation's businessmen, you can be sure that the market's own corrective mechanism will be disabled. Competition will then be muted, cronyism rampant, and inefficiency protected. The cash nexus for candidates for public office and wealthy donors, including labor unions, causes problems. The lobbyists have a field pro quo of donations and favors." *

Pressures from these powerful sources have limited the ability of modem leaders to advance themes of common good. The primary source of support has corae from the Catholic church, both in initiates from Rome and from theologians. In recent years, an important initiative of Perestroika was advocated by Soviet Premier Mikhail Gorbachev. He had tried to change Russia, a centrally planned economy. But in the end the effort in Russia failed under heavy hand of the Putin Administration.

In 1990, Gorbachev was awarded the Nobel Peace Price, and he spoke of his valid goals :

> ***"We want to be an integral part of modem civilization. To live in harmony with mankind's universal values, abide by the norms of international law, follow the 'rules of the game' in our economic relations with the outside world. The Cold War has ended. We live in a new world. " ****

Gorbachev did not have an Article 7 in his Russian Constitution. If he had, it might have applied its provisions to more permanent effect.

Advocates for Article 7 will likely find very strong forces arrayed against them. How does protecting the common good become a practical reality and a continuing one? Legislatures are too dependent on the generosity of lobbyists, and will not be likely to pass bills enforcing Article 7. The most likely strategy for success is to seek a favorable decision from the courts. It may be possible that business interests could see a separation of business and economic interests as advantageous in the long run. Milton Hershey, founder and longtime president of the Hershey Chocolate company used many innovative techniques. His general view was :

> ***"The more closely we work together, the more effectively can we contribute to the better health of all mankind; this should be our common objective, and its achievement would make the world a happier place in which to live. " ****

Factions : Majority and Minority Rights.

James Madison probably developed the concept of factions to its highest level, including the necessary actions to avoid abuse of power. Unanimity is a rare occurrence in human affairs, so when votes or noses are counted, a supermajority is often identified as sufficient at Town Meetings or for important votes in legislatures. Most common is thé majority vote, when only 51 percent can claim victory. Madison struggled brilliantly with ways to keep a simple majority from abusing its powers, typically at the expense of minority rights.

Thus anyone starting from a position of common good may find a practical situation when he has marginal majority power and a responsibility to defend minority rights. Such a defensive posture is quite different from a positive statement of the common good. Madison's solution was to create a playing field where the various factions competed with other for supremacy, often quite inefficiently so as to delay decisions. The result may be less abuse of power but can produce ineffective or frustrating government. Madison's ultimate hope was that the protracted debates would compel ultimate compromise, with the resolution coming closer to meeting the essence of the common good.

*** Nobei Lecture on June 5, 1991.**

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Actions Allowed Under Article 7

A fair interpretation of Article 7 would stress openness and accessibility by the public, with full freedom of information assured. Article 7 allows companies and individuals to earn business profits when there are no specific government actions seen as the stimulation for those profits. Government action could also be taken if there were full reimbursement by private beneficiaries to governments for any profits resulting from the government actions, such as up-zoning.

Competitive bidding for government contracts could continue if there was more than one bidder. Selecting the lowest bidder implies that the lowest profit was being selected among the choices. Government actions can increase profits but only if they do it for everyone, and not for a single person or select few. Where there was a doubt about Article 7 compliance, public agencies could make a legal finding that they were indeed in compliance with the law.

Limits on City and State Governments

Article 7 requires two things : the government action must serve the common good, and the action cannot produce profits. Both conditions must be met. Any government action that does not serve the public good is not allowed. Any government action that produces a profit to an individual or select group is not allowed.

It is a simpler task to identify those activities that do ***not*** serve the common good than those that do. A useful challenge is to draw up three fists : government actions which are undeniably a common good .... those actions that are absolutely not.... and those for which there is a dispute or an uncertainty, like gambling casinos.

Governments can begin by making clear choices -- yes or no — as a common good. Agency procedures could require findings that they are acting for the common good. These descriptions would help judges, legislators and citizens to logic for decision and compliance with the law. Irreconcilable disputes could be referred to the Inspector General's office.

Article 7 requires that legislators must rise above the special interests of individual constituents and instead pursue a common good based on a generally shared community perspective, not an isolated selfish one. Other guidelines could come from a restatement of the ethical and social objections of Pope Benedict.

Identifying the existence of a profit situation is easier to determine. In the case of an upzoning to benefit a single owner, such as Novartis, qualitative judgments are fairly straightforward. Up-zoning increases the value of the property and potential incomes in future years. More difficult judgments must be made in quantifying the full amount of compensation to be paid by the owner to the City. Without full compensation, the up-zoning is illegal by Article 7.

For the Forest City rezoning, there appear to be three beneficiaries, Forest City, MIT and a second landowner. This is a small group and thus is contrary to Article 7. MIT's rezoning proposal at Kendall Square has a single landowner proposing up-zoning of its land.

The Central Square plan raises many new issues : transfer of development rights as well as up-zoning. Every landowner within the rezoning area could be a party receiving a profit from the

government action, namely a rezoning by the City Council. In all cases, failure to mitigate impacts such as traffic, parking and noise serves to undennine any claim of serving the common good.

Compliance with Article 7 is not a voluntary or casual matter. The Preamble to the Constitution refers to a social contract between the citizens and their government. Where the government engages in such a contract with its citizens, and also sets out the rights of citizens and obligations of government, a promise has been made. It would imply a commitment, an obligation to meet the requirements that are spelled out in the Constitution.

An additional problem for the City occurs when zoning amendments are developed and endorsed by an advisory committee containing businessmen and entrepreneurs as stakeholders of interest. All of these stakeholders could be beneficiaries of profits that generated by up-zoning. When any such members make recommendations to CDD and the Planning Board, their conflict of interest should be recognized. They should have resigned from the advisory committee for that reason. This situation is true for both the Kendall and Central Square rezoning.

Changes in Government Operations

The City would need to change its current policies on up-zoning.

The City would need to change its current interpretation on spot zoning.

Any payment from a private party to a government official (or advisory committee member) should be perceived as a personal profit from an action of government. Such payments would include any gratuity of value, including contributions to accounts for future college expenses. The making of the payment is sufficient to violate Article 7, since the issue is profit -- and it is not necessary to show a motive. Only the existence of a profit is at issue.

The theoretical down-zoning situation identified by Mr. Rafferty finds its response in a mirror image logic. The argument is as follows. If downzoning would create a condition where the ***City*** would have to pay damages for loss of value or income, then a up-zoning would require the reverse payment -- with the ***property owner*** paying the city the amount of the property enhancement. In either case, a calculation of the monetary compensation would be difficult, but the procedure would be similar for downzoning and for up-zoning.

This position is logical and consistent. Otherwise, there would be an unbalanced condition, where the city pays for downzoning. In the case of an up-zoning, the landowner must pay the City for the difference in value.

Mr. Rafferty has criticized the Article 7 approach as undermining existing programs for incentive programs giving grants and tax breaks to companies like Evergreen Solar or Curt Shilling's computer game company. These government contributions are unconstitutional because they benefit select private interests. This conclusion supports an increasing body of evidence that tax breaks and grants to special companies are both unfair and not productive. Thus Article 7 supports those critics who would do away with tax breaks and grants to special companies.

Article 7 is also a protection against bailouts of "fat-cat" companies that encounter financial difficulties. Just because a company is "too big to fail" is no legitimate justification for a bailout, according to Article 7.

CONCLUSIONS and RECOMMENDATIONS

There are two options to resolve the issue of Article 7 and matters of the common good and profits. One is to bring a legal challenge to any city zoning action that serves to further enrich landowner-developers. The result would be a court determination similar to the case of ***Moot vs. DEP.***

The second option is to file a bill in the Legislature, and obtain a vote of the Legislature to send the bill to the Supreme Judicial Court for an Opinion of the Justices. Such an initiative was made in 1980 and 1981 on a Chapter 91 tidelands bill, for which the Justices identified those parts of the bill which were legitimate and those which were not.

Both approaches are aimed at achieving a similar result : clarifying the application of Article 7 to zoning or any other government action.

With either formal approach for an Article 7 resolution, a strategy to stimulate informal dialogue could assist in discovering if various interested parties might achieve agreement on certain aspects of Article 7. There could be a clearer definition of what the disagreements are. This treatise is submitted with the intent of contributing to that dialogue.

This treatise is a first edition. I am not aware of any other analysis that concentrates with Article 7 and its implications for our public agencies. No claim can be made that this edition is the final word, and indeed the expectation is that revised editions will be issued in the coming months, as additional appendices are completed and as comments and suggestions are received from the various parties in the dialogue.

Appendix A. Classical Philosophers and the Common Good

A useful first step is to identify the allies of the common good concept, as well as its detractors. The status of the debate should be summarized and evaluated.

The allies of the common good are Aristotle, Aquinas, Thomas More, John Locke, Montesquieu, Jefferson, John Adams, Peter Kropotkin, Ghandi, Martin Luther King, Mikhail Gorbachev, Pope Benedict and many catholic theologians, World Federalists and supporters of the United Nations. Madison developed a sympathetic treatment as he sought to resolve the conflict of factions. Some advocates of enlightened despotism could also be called supporters, such as Frederick the Great and Catherine the Great. Adam Smith in his idealism for the hidden hand and the harmony of individual economic judgments could also be considered an advocate. Some of the leaders of the great terror phase of the French Revolution may have thought they were serving the common good, but history has concluded otherwise.

Detractors include Plato, St. Augustine, various tyrannical dictators, super-competitors and zero-sum-game advocates in business and economics, Joseph Schumpeter, technocrats, minority rights advocates, lobbyists, criminals, and aristocrat/elitists.

The philosophical foundations that went into the Constitutions of the Enlightenment have now largely disappeared from our society, and there are no philosophers to be called on to give us expert opinion on what is meant by the "common good." Arguments and evidence are scattered inconsistently over twenty-four centuries of human existence.

Socrates and Plato began the discussion 2400 years ago with their consideration of "the good." Plato asserted that the laws should be "for the sake of what is common to the whole city." This statement comes close to the concept of common good.*

The guardians in Plato's Republic were a band of intellectual elite, with the power to do what is right for the people, even killing them. His goal was to find and exercise “the good,” but the actual process was very autocratic. Augustine, in sympathizing with Plato, saw the world as impossibly corrupt.

Jefferson gave a lacerating review of Plato's Republic in a letter to John Adams :

> ***"while wading through the whimsies^ the puerilities, and the unintelligible jargon of this work, I laid it down often to ask myself how it could have been that the world could have so long consented to give reputation to such nonsense as this?" *****

A generation after Plato, Aristotle formulated the "common good." In the many centuries since, interpretations have been offered by theologians, political philosophers and economists. A few have been offered by legal experts but such commentaries are very rare.

*** 56 DePaul L. rev. 469 p. 477**

**** Jefferson letter of July 5, 1814 to John Adams.**

Aristotle identified three different forms of shared land ownership and use. These were private ownership of the soil and common use ... common ownership plus private use ... and ownership and use alike common. These concepts are heavy on common use, which American attitudes are more attuned to completely private ownership of land and use, with the home being a man's castle.

Aristotle was the worldly optimist, while Plato and Augustine were other-worldly pessimists. Aristotle made a valiant early attempt to be the first man who knew everything. He describes six types of constitutions, three pursuing the common good and three mired in perversion and corruption. Ideal monarchies, the ideal aristocracy and the ideal polity were the forms that served the common good. The perversions of government were tyranny, oligarchy, and democracy. Later inventors of new constitutions in the 17th and 18th century tried to improve on democracies so that an ideal polity might be approximated. Then the focus was often on the common good, a balance of power, and .punishment for corruption or non-performance.

With regard to equity and favoritism in the law, Aristotle asked,

> ***"Should the laws be made for the higher classes, or for all? We answer that the laws should be just, and that the just is the equal, and has regard to the common good of the citizens. The laws therefore cannot regard the good of one class only, but of all the citizens. "****

Aristotle's influence carried through to the present day by his support from Aquinas and many influential thinkers in the Catholic church. The result was an added religious aspect to common good, although the general perspective can be virtually non-sectarian. The simple structure of Article 7 contains much ethical, cultural and religious influence in its use of "common good" and the hazards of certain profits and special benefits to certain preferred influential forces in society. For better or for worse, religion has been important throughout the history of Massachusetts, and it cannot be ignored.

The Romans filled the space between the Greek civilization and Augustine. The statesman Cicero contributed the best commentary, as he devised the ideal of a universal law of reason that is binding on all people and governments everywhere. People were presented as having natural rights that governments must honor.

> ***"We ought to follow nature as a guide, to contribute our part to the common good, and by the interchange of kind offices, both in giving and receiving, alike by skill, by labor, and by the resources at our command, to strengthen the social union of men among men what I have laid down as the fundamental principles of justice, first, that injury should be done to no one, and in the next place, that service should be rendered to the common good.***
>
> ***"... common possession is to be maintained as to whatever nature has produced for the common use of men; so that***

*** Aristotle,** *The Politics of Aristotle;* **translated into English by B. Jowett. Oxford, Clarendon Press, 1885. 1 of 2 vols. Liberty Fund's Online Library of Liberty.**

> ***while those things that are specially designated by the statutes and the civil law are held as thus decreed, according to these very laws other things may be regarded in the sense of the Greek proverb, All things are common among friends. Indeed, all those things seem to be common among men... " ****

By the thirteenth century the ideas of Aristotle and Cicero had been imported into Europe. Aquinas assembled the package, while others were able to codify rules of right and wrong, the seven deadly sins and the cardinal virtues.

One of the earliest version of the seven deadly sins was offered by St. Gregory in 590 AD. By the 14th century, the list reached its modem form as ***lust, gluttony, greed, sloth, anger, envy and pride.*** The seven cardinal virtues were ***chastity, temperance, charity, diligence, patience, kindness, and humility.*** For the common good aspects of Article 7, the relevant virtues are ***temperance, charity, patience, kindness and humility.*** On matters of favoritism and profit, the relevant sins are ***gluttony, greed, envy and pride.*** Greed takes the form of seeking excess and undeserved profits, and the envy and pride associated with seeking special privileges.

Like the Enlightenment intellectuals, Aquinas wedded ideas of personal good and common good. He identified three types of good : "***the individual good, the good of the family, and the good of the political community and kingdom.... each one has different objectives. One is prudence, which is directed to one's own good,.... another is domestic prudence, which is directed to the common good of the home, while a third, political prudence is "directed to the common good of the political community or kingdom. "*** He defined political prudence to be "the same as the prudence which is directed to the common good." **

Aquinas' role was to assure that morality was included in the process :

> ***"Aristotle had argued that it as the natural impulse of human beings to desire 'the good'.[1] Aquinas goes further. The combination of this impulse towards "the good' with the power of rational thought allows human beings to reach an understanding of what is morally right." ****

Aquinas saw a natural law of common use, with each person's access to earthly goods having a related responsibility to assist in meeting the needs of others. He highlighted the importance of reason and seeing that the common good is served'when each person controls and protects his own property. This view is an early version of Adam Smith's influential "invisible hand" in the field of economics. For Aquinas, private property exists to serve the common good and any excess over individual needs can be distributed to help the needy.

Both.Aquinas and Aristotle agreed that the city became the ideal human community and that the purpose of government was to serve the public good. Aquinas provided the basis for a new view that those in power served as long as they could do right. Otherwise they would be replaced. He asserted that the common good was superior to the individual good in the hierarchy of virtues.

*** Cicero,** *Ethical Writings of Cicero,* **First Century BC, translated by Andrew P. Peabody, Little, Brown, and Co., 1887 Liberty Fund's** *Online Library of Liberty.*

**** St Thomas Aquinas,** *On Law, Morality, and Politics,* **Hackett Publishing, 1988 p. 272**

***** Charles Freeman,** *The Closing of the Western Mind,* **Random House 2002, Vintage Books 2005, p. 330-331**

Appendix B : ST. AUGUSTINE : OPPONENT OF ARTICLE 7 INTERESTS

St. Augustine's most active years were in the early fifth century. He dominated the important intellectual chasm between Aristotle and Aquinas. For life on earth, he became a forceful pessimist, convinced of the inevitability of sin and corruption among men. He established the basic church ideology on original sin and how the sins of the past were transmitted to all humans, without the opportunity for purification, forgiveness or recompense.

Human society, said Augustine, must be organized around God, and when it is not whatever remains is a human Hell. "For Augustine the reality of life on earth cannot be transformed by human effort as it will always be mired in sin." * The sinfulness of man knows no limits, and governments must be organized around a system of strong hierarchy, binding authority, and strict censorship to control the forces of the mind that may seek freedom to think, plan or act. For Augustine, the intellectual mind was always at risk of disturbing the irresponsible masses. Seeing no value in a covenant of works and free will, Augustine was vehemently opposed to all such suggestions.

Early in the fifth century the Irish monk Pelagius appeared with proposals for banishing original sin and instead living lives of free will and good works. Pelagius believed that people could bring about their own salvation through the power of reason, the exercise of free will and the achievement of good works. People could make society and themselves better, and thus win the approval of God and the reward of grace in the next life. Pelagius was a a sharp critic of corruption and expected his followers to be free of corruption as well.

But Augustine had the power and the influence. He was frilly energized into preventing any spread of Pelagianism. In the battle with Pelagius, it was the issue of grace and spirit versus morality and good works. Pelagius was crushed, and his writings disappeared from history.

Augustine's influence established Church doctrine for the next eight centuries, driving out Aristotle, the common good, science and optimistic thinking. There was no hope in this world, only in the next.

The defeat of Pelagianism stabilized Christian doctrine, and established policies in favor of predestination, pre-ordained grace and original sin, while condemning free will and good works — the key elements in common good. The result was a cultural desert that lasted for 850 years, until Aquinas resurrected the ideas of Aristotle. h* -

Anne Hutchinson and John Winthrop

The Massachusetts experience with its Declaration of Rights is important in terms of a distant and seemingly unrelated religious crisis that befell the Massachusetts colony in the 1630s. In the epic clash of two extremely strong willed individuals in Puritan Boston, Anne Hutchinson and John Winthrop, the two combatants locked horns over a three year period. Winthrop won the battle through a massive show of force, resulting in the shattering of Anne Hutchison's coalition.

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* Charles Freeman, ***The Closing of the Western Mind***, p. 299

Had Arne Hutchison been victorious, the likely result would have a significant conservative repression and a return to the priorities of Augustine - a covenant of grace and spirituality above all else. There would be little room for self-improvement, good work, forgiveness, or the practice of virtue. Enlightenment thought would have struggled to get a foothold.

Boston almost saw a replay of the clash between Augustine and Pelagius 1200 years before. The stability of the new society was at risk. Historian David Hall stated the challenge faced by Winthrop : " *What safeguards could be introduced to prevent contentious saints from overthrowing their ministers, as nearly happened in the Boston congregation in 1636?"**

Winthrop's vision was to create a paradise on this earth, worthy of God's approval. His dream was underlain with utopian visions based on a spirit of cooperation and community. Dedication and hard work were essential to achievement, and that meant a covenant of works. It was an acceptance of the principles of St Thomas Aquinas. Winthrop saw Anne Hutchinson as a direct threat to this dream, and she had to be banished.

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Appendix C THE CONCEPT OF THE COMMONWEALTH

The more common and modem use of "Commonwealth" is a state or group of states or nations. Commonwealth is the formal title for the states of Massachusetts, Kentucky, Pennsylvania, and Virginia.

Commonwealth or originally "common weal" mean a strong, healthy or prosperous state, intended to reflect the general welfare or the general good. It meant a group of people banded together for the common good. Welfare was the state of doing, going, faring or living well — without evil or calamity. Welfare work became an organized community or government efforts for social betterment of society. This effort often took the form of a whole community acting to assist the whole of society, including those elements who needed assistance and who lacked the prevailing welfare. Gradually, over time the terms weal and wealth came to be identified with economic affluence.

The juxtaposition of common and wealth produces the clear implication of sharing the wealth among the community through a process of economic equality. A traditional commonwealth would appear to be a system where competitive striving for personal gain was restrained, if not discouraged. From this viewpoint, Article 7 in preventing the advancement of private interests through government action would be consistent with advancing the interests of society.

APPENDIX D MADISON'S CONCEPT OF THE PUBLIC GOOD

James Madison's single greatest contribution was to advance the views of Montesquieu and Hume about factions, as explained in the ***Federalist*** Number 10. He argued that without strong public virtue, any democratic government would be constantly threatened by intense battles between competing factions, each seeking to advance its own narrow interests while defeating similar hopes of others. Areal danger could occur when one side won outright and imposed its mandate recklessly.

Madison saw factional abuses being at the expense of the public good. His solution was not to legislate good will and the common good, but to structure government in a way to neutralize the powers of the combatants, slowing down the speed and efficiency of the process. Competing interests would feel pressure to compromise and work out an arrangement that settled the issues fairly and agreeably. The net result was less selfishness and a better chance for a socially useful result, conducive to the public good. In effect, it was Madison's version of Article 7.

He borrowed from Hume another feature of factions and governments — that the higher levels of government and political associations could be better trusted to protect the concerns of larger society — and not to espouse petty local preferences. Hence, the structure of government would begin at the local level, with increasing powers extending upwards to the national level ; to the President, the Congress and the U.S Supreme Court. This recognition of executive virtue and local injudicious behavior served to defend against the opponents of the common good, who Madison saw as concentrated at the local and state levels.

The clash of factions could produce the tyranny of the majority and the oppression of the minority. The separation or powers became the bulwark to guard against abuse of majority rule, at least in theory.

APPENDIX E COMMON EANDS

The transition away from medieval real estate took much of the monopoly in land ownership away from feudal lords and assigned it to the public as common land. The Puritans brought the common land concept with them to the new world, but problems with overgrazing of shared public lands and a preference for private house lots caused the colony to sell most of the common lands.

Cambridge in the early 1630s set aside extensive lands on its westerly border as common lands for grazing and other shared uses. Large grazing areas between what are now Harvard and Porter Squares were later converted for use as livestock markets. The common lands effort fell apart due to overgrazing (known as "the tragedy of the commons").* Typically, common lands were either sold to private owners or retained as public parks (Boston, Cambridge, Burlington Commons). These lands continue to exist today without significant commercial abuse.

One of the early initiatives of the Puritan government in the 1640s was to redefine coastal tidelands. The Puritan government invented a new form of coastal regulation based on the shared interest in tidelands. The beach or flats area was automatically declared to be owned by the adjacent uplands landowner, but with a shared interest in the land to include a public access right owned by the Commonwealth for the purpose of navigation, hunting and fishing. To this day, these common law rights are protected by M.G.L. Chapter 91.

*** Garrett Hardin, "The Tragedy of the Commons," Science Vol. 162, pp.1243-1248, December 13, 1968**

APPENDIX F RESENTMENTS AGAINST PROFITS

In one of the earliest efforts to visualize the ideal commonwealth, Thomas More's Utopia (1517) identified avarice as contrary to the public good. He proposed "the prohibiting of many things under severe penalties, especially such as were against the interest of the people ... those whose avarice led them to transgress would be severely fined, so the selling licenses dear ... would be against the public good."*

Beginning with the 1765 Stamp Act and continuing through Intolerable Acts, the British strategy became a sequence of incendiary taxes on basic commodities. These taxes resulted from the reorganization of the British empire and large expenses for past and anticipated wars. The most unpopular imposition was a tax on tea that favored a hated monopoly, the East-India Company. Parliament approved this tax with little debate and expected minimal controversy.

Instead intense resentment raged through Virginia and Massachusetts, with Patrick Henry heading the charge in Virginia and John Adams being the leader in the Bay State. Both claimed that rights were being infringed, that colonists should have the same rights as native Englishmen, and protested imposed taxation as tyranny.

The company of concern, the East-India Company, was a British govemment-business partnership. They used high prices and monopoly on tea supplies throughout the world. Prof. Henry Steele Commager described the origins of the tea crisis :

> ***"An act of May 1775 permitted the East India Company to export tea directly to the American Colonies free from all duties except the three-penny tax payable in America. The Company disposed of its enormous quantities of tea through its own agents, and thus had a practical monopoly on the tea business in the Colonies. It was the danger of this monopoly rather than the principle of the tea tax that aroused resentments in the Colonies. " ****

The revolt of the Boston Tea Party was actually against a government tax imposed to assist a private company.

The decade from 1765 through 1776 marked the beginning and the culmination of the fracture between Britain and its American colonies. Britishbistorian W. H. Lecky concluded that :

> ***"From this time, the English government in America is little more than a series of deplorable blunders. " *****

In short, Britain had completely failed in its obligations to be a good government.

*** Thomas More's** *Utopia* **at** http://www.gutenberg.org/cache/epub/2130/pg2130.txt

**** Henry Steel Commager,** *Documents in American History,* **Seventh Edition, 1963, p. 70**

***** W. H. Lecky in** *History of England in the Eighteenth Century,* **Vol Ut of VIII, p. 379**
Quoted by Commager, *Documents in American History,* **p. 63.**

John Adams appears to be the first and only author of a Declaration of Rights to refer specifically to certain profits as undesirable. The exact reasons for such inclusion have not been explained, but Adams' background as a recognized conservative does not suggest traditional anti-business motives. The unrest that produced protest and revolution was more about economic issues, like taxes, than any other fundamental irritant. Article 7 does not mention taxes but it does mention profits. The U.S. Constitution makes no mention of profits.

It is possible that Adams was affected by a similar concern as Adam Smith. Both believed that a free market was better and that the old mercantile system was based on privilege and favoritism. In 1765 he wrote the instructions for the Town of Braintree, complaining that the new taxes were "so numerous and so high, and the embarrassments to business in this infant, sparsely settled country so great, that it would be totally impossible for the people to subsist under it." Adams, unlike his Virginia counterparts a lifetime opponent of slavery, concluded "we never can be slaves..." *

However, Adam's complaint about profits was a limited one, with Article 7 being directly only at profits abetted by government action. The colonists were not early Marxist radicals opposed to capitalism, and instead the record shows local merchants supported many of the protests against the escalating British tax program.

Adams in opposing taxes that were excessive and unreasonable was clearly trying to speak for the colonies as a whole, including business. At no time did he express opposition to business profits that were reasonable and not exorbitant.

Yet Adams' critical approach to government-based profits finds a parallel in concerns about other government abuses such as freedom of religion, and the need for no favoritism or penalties for sectarian reasons. Madison's biographer Harold Schultz recounts how

> ***"Madison left among his papers the draft of a resolution on the free exercise of religion which was not accepted by the convention. If broadly interpretedthe resolution could have been used to sanction the separation of church and state. It declared 'that no man or class of men ought on account of religion to be invested with peculiar emoluments or privileges, no subjected to any penalties or disabilities. ' " ****

The astute reader will notice the reference to "No man or class of men," in similar fashion to Article 7.

*** Henry Steel Commager,** *Documents in American History,* **Seventh Edition, 1963, p. 70**

**** Harold Schultz, James Madison, Twayne Publishers, 1970 p. 32**

Appendix G The Virginia Declaration of Rights

The Virginia Declaration of Rights was written by George Mason, and approved three weeks before Jefferson's' more famous Declaration of Independence. Mason's work is a precursor of both Jefferson's work and John Adams' Preamble and Article 7 :

> ***"that all men .. have certain inherent rights, of which, when they enter into society, they cannot by any compact deprive or divest their posterity; namely the enjoyihent of life and liberty, with the means of acquiring and possessing property, and pursuing and obtaining happiness and safety. "***

Mason's Article 3 comes the closest to the essence of Article 7 :

> ***"That government is, or ought to be instituted for the common benefit, protection, and security of the people, nation, or community ... producing the greatest degree of happiness and safety, and is most effectively secured against the danger of maladministration; "***

The Declaration of Independence contains a long list of offenses by the Crown — a litany of "repeated injuries and usurpations" by King George III. The very first offense was : *"He has refused his assent to laws the most wholesome and necessary for the public good. "* The themes of "We the people," "provide for the common defense" and "promote the general welfare" are included with "inalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness."

Massachusetts was the eleventh state to adopt a constitution after the Declaration of Independence. George Mason's work on the Virginia Declaration of Rights was so remarkable that almost all states used his work as a guide for their own Declarations. Indeed, while the U.S. Constitution has a Bill of Rights — added as amendments — all states except one have Declarations of Rights, and are modeled after Virginia.

SOUTH STATION
EXPANSION

mass DOT
Massachusetts Department of Transportation

Scoping Session - April 1, 2013
Comments on the Environmental Notification Form

Comments on the South Station Expansion project may be submitted by mail, fax, or email until **April 9.**

Name: /fqfpêAA^. Li A TREMOUILJT H

Address/Email: 875 Al/Ï^sc.HHSj-'T'tt AVE. #31 CAMBRIDGE, Al A- 02139

Please provide your comments below (use the reverse side for additional space).

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You may leave this comment sheet with project staff at the door or mail it to:

Secretary Richard K. Sullivan, Jr., Executive Office of Energy and Environmental Affairs,
MEPA Office, Attn.: Holly Johnson, MEPA Analyst, EEA# 15028
100 Cambridge Street, Suite 900, Boston, MA 02114
Fax: 617-626-1181, Email: Holly.S.Johnson@state.ma.us

Johnson, Holly (EEA)

From: Joel N. Weber II [joel@joelweber.com]
Sent: Monday, April 08, 2013 11:55 PM
To: Johnson, Holly (EEA); Fichter, Katherine (DOT)
Cc: patricia.jehlen@masenate.gov; denise.provost@mahouse.gov; Davey, Richard (DOT); gm@mbta.com; info@necfuture.com; jarrett@jarrettwalker.com; Joel N. Weber I!
Subject: South Station scoping comments

As Ma s s DOT explores South Station expansion., I hope the study will include a look at where people arriving by commuter rail in the morning go when they get off the train at South Station.

I expect that some passengers transfer to the Red Line., others to the SL1 and SL2 buses, still others get on a Hubway bike, some walk, etc.

As the number of passengers arriving at South Station by commuter rail increases as a result of South Station expansion, the number of passengers transfering to the Red Line, the SL1 and SL2 buses, and Hubway will increase,

I think that it would be valuable for the South Station study to look at how many passengers are expected to transfer to each of those modes, and what capacity improvements might be needed on the Red Line, on the SL1/SL2 tunnel, and on Hubway.

In the case of the Red Line, my understanding is that the current signal technology could likely accomodate 3 minute headways, perhaps with a need to upgrade a few specific bottlenecks in the existing system, and switching to a different signal technology might allow something closer to 2 minute headways. Will that be sufficient, or will lengthening Red Line platforms become necessary to keep up with increasing numbers of riders? N-21.2

The 11/23/2009 blog post entitled "minneapolis: unlocking downtown with transit malls" on humantransit.org claims that a busway where buses cannot pass other buses has a capacity limit of approximately 60 buses per hour. My understanding is that SL1/SL2 plus the short turn South Station to Silver Line Way service is probably currently operating somewhere around 30 buses per hour during peak travel times, and I have never seen anything that clearly explains whether the non-revenue turnaround loop at South Station has space for passing. N-21.3
The extra lugage racks in the SL1 buses not present in the other buses, and the need for SL1 to do schedule recovery at South Station given that the airport is a loop may further complicate things if passing is not possible.

If there is some chance of doubling SL1/SL2 ridership, and if that would bring the busway to capacity, exploring options for 80 foot buses, or Green Line trains, or adding passing lanes to the underground bus stations would be appropriate.

As Hubway ridership increases, Hubway may need additional land in the vicinity of South Station, and planning to make that land available is important. N-21.4

Additionally, I'd like to see the study explore whether the North South Rail Link combined with additional commuter rail stops near subway stations and/or employment centers could be an effective way to reduce the pressure on South Station to accomodate south side commuters, by providing additional options to allow more south side commuter rail riders to complete useful trips without getting on or off at South Station. N-21.5

The 49th page of the 158 page pdf (numbered as page 45 in the bottom of the image of the page) available from mbta.com dated 01-Sept-10 describing the possibilities for regular N-21.6

weekday Foxborough Commuter Rail list some reasons why South Station can only accomodate two trains per hour per platform track, even though some other systems have been known to accomodate three (and while not acknowledged in any MBTA document, I believe that New Jersey Transit's now canceled New York Penn Station Expansion project was planning to operate four trains per hour per stub end platform track). N-21.6 (cont.)

The Foxborough study claims that single tracked mainlines are one of the factors that limit the number of trains each track at South Station can serve. I think that exploring the alternative of additional passing sidings or double tracking to increase capacity would be appropriate.

At the same time, I think a goal of no new at grade crossings with more than one track and adding no more tracks to existing at grade crossings unless converting them to grade separated crossings in the process might be appropriate; at some point in the last 15 years, there was a fatal accident in which a young child saw a train go by, and went passed the still-lowered crossing arms on the assumption that once a train went by, crossing the tracks would be safe, only to be hit by a train going the opposite direction on the other track. N-21.7

As the study looks at ways of making the Flarborwalk along Dorchester Avenue attractive to pedestrians, looking at ways to attract boating activity to the southern part of Fort Point Channel may be appropriate. 1 once walked along the Flarborwalk from Rolling Bridge Park to Summer St, generally along the east side of Fort Point Channel, and found the body of water to be quite empty and unused (and therefore boring to look at). N-21.8

If the reopened section of Dorchester Avenue to the south of Summer St is expected to be two way, a careful look at how to best accomodate passenger drop-offs by northbound traffic would be appropriate. N-21.9
Encouraging that traffic to take Atlantic Avenue instead may be appropriate, and looking at whether there is anywhere where Dorchester Avenue would be significantly easier to get to than Atlantic Avenue and whether there are road improvements that would make Atlantic Avenue easier to get to may also be appropriate.

With the possibility of building over a thousand new parking spaces in what MassDOT is trying to portray as transit oriented development, I would like to see the study explain in detail why replacing those cars with transit would be difficult. If there are concerns about access from the north side commuter rail system, a discussion of whether the North South Rail Link might be a good substitute for building more parking may be appropriate. N-21.10

Additionally, a good part of the disincentive to use taxis (and thus an incentive to build and use parking spaces) is the cost of the taxi medallion which must be paid for indirectly by taxi riders. I'd like to see the study explore what pricing would be possible for taxi service if we eliminated the taxi medallion system and continued to pay drivers what they currently tend to be paid when they are not the owner of the medallion, and whether that lowered price would allow fewer parking spaces to be built in the vicinity of South Station. N-21.11

Google has been experimenting with technology that allows cars to move themselves without drivers. If the technology matures to the point where it could drop people off at South Station and then bring the empty car somewhere else to park, is there a better place to put that parking, and is there road capacity to get the empty vehicles to that parking? (The answer to this needs to take into account the faster reaction time of a computer vs a human driver which can allow computer driven cars to follow each other more closely, as well as the opportunities to have computer driven cars park each other in to use less land while parking if they have the ability to ask each other to move as needed.) N-21.12

I hope the study will go into more detail about what bus route(s) might be rerouted onto Dorchester Avenue, and what existing bus stops those routes would then miss, and what the N-21.13

impact of missing those stops would be, both for present use and for potential future development in the vicinity of those stops. N-21.13 **(cont.)**

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Logan Health Study CAC (DPH)
Logan Airport CAC (Noise Study)
MBTA Rider Oversight Committee
MAPC MetroFuture Steering Com. (to 2008)
Somerville Transportation Equity Partnership
Mystic View Task Force (of Somerville)

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April 9, 2013

Richard K. Sullivan Jr., Secretary EEA
Attn: Holly Johnson, MEPA Office
100 Cambridge Street, Suite 900
Boston MA 02114

Via Email: holly.s.johnson@state.ma.us

RE: South Station Expansion Project
Environmental Notification Form, EEA No. 15028

Dear Secretary Sullivan and Analyst Johnson,

Thank you for the opportunity to comment on the South Station Expansion ENF and the MEPA scope for the Draft EIR. I will start by noting what I consider to be positive aspects and then move on to a few areas of project concern. My comments will follow the general outline of my oral statement at the site meeting for this project several weeks ago.

Positive Aspects

First, I am glad that MassDOT is going to consider a range of private sector co-development options at South Station. Though many citizens concerned with the fabric and history of Boston may disagree, I would be happy to see highly visible gateway developments at both South and North Station, as well as at Downtown Crossing, all marking key public transit nodes. With regard to the physical form of the city, it would be fine with me if these nodes have the tallest buildings in the city, with uplifting crowns.* N-22.1

Second, transit nodes of great cities should be very public meeting places that celebrate the vibrancy, life and diversity of urban economies and gathering spots. The re-development of South Station in the late 1980s instilled such vibrancy. The Silver Line addition, with its waterfront and Logan connections, fits into the mix as well even though it would have been far better to re-route the Red Line from under the Fort Point Channel to a more useful route through the South Boston Seaport / Innovation District. N-22.2

Third, expansion of electrified Acela capacity and trains is a great long term goal. Expansion of electric transit at all geographic scales delivers an important double benefit - much less urban pollution and much greater clean energy power flexibility in the future. Electrified rail based transit is good whether it is at regional AMTRAK corridor scale, heavy subway or more nuanced light rail that interacts at a finer grain with local land uses. All these electrified rail modes have their place within the public transit mix. N-22.3

** Logan's jets should not be flying over downtown even when following emergency procedures.*

Fourth, the opportunity to eliminate idling trains awaiting South Station platforms would certainly be a passenger benefit and might also be an environmental benefit, depending on both future capacity and future train technologies. However ... N-22.4

Project Concerns

First, expansion of diesel bus and rail capacity in the vicinity of South Station specifically, and the MBTA service area more generally, is an awful idea. Notwithstanding several generations of EPA effort at diesel engine improvement, the last year has been very tough on diesel emissions and black carbon. Last summer, after many years of debate and delay, the World Health Organization's International Agency for Research on Cancer (IARC) declared diesel emissions to be a Class 1 Carcinogen for lung cancer. N-22.5

IARC is the world's most authoritative body on carcinogenicity. The Class 1 category for lung cancer, the world's greatest cancer killer, includes both tobacco and asbestos. IARC's designation is based on robust occupational epidemiology of miners exposed to diesel machinery, career truck industry workers and diesel train engineers. Similar levels of lung cancer risk have been found among residential populations who live in locations most exposed to mobile pollution, even in clean cities such as Stockholm and Oslo.

Then in the last several months, many of the world's most respected climate scientists co-authored a consensus paper in the Journal of Geophysical Research (with TC Bond as first author) establishing black carbon's pre-eminent role as the number two Green House Gas, trailing only C02 but moving into second place ahead of methane (CH4) and nitrous oxide (N20). This followed years of work by Ramanathan at UC San Diego, Jacobsen at Stanford, and others. Diesel is the world's most certain source of black carbon.

The ENF did not disclose post expansion diesel bus and rail capacity at South Station but the Draft EIR scope really must require MassDOT transparency on the full range of capacity increases possible. N-22.6

Second, the total level of transportation pollution in the South Station, Leather District and Chinatown areas is extraordinarily high. These areas are already profoundly affected by I93 and its Big Dig portals, the MassPike, all the diesel rail and buses associated with South Station, and nearby transportation maintenance and layover facilities. Chinatown should be given special attention as it houses one of the densest environmental justice populations in Massachusetts. N-22.7

Chinatown lives right next to these regional transportation facilities which exist largely for the benefit of commuters and the downtown economy at the expense of local resident health and that of their children and elders. Affordable housing and public schools in Chinatown provide no designed or engineered protection from this transportation air pollution onslaught. Nor is this population protected from the annoyance of and hypertension from transportation related noise.

The recently released WHO 2010 Global Burden of Disease determined that air pollution has now edged out smoking and second hand smoke as a risk factor for disease and mortality worldwide. For both genders combined, hypertension is the world's number one health risk. But for women, air pollution is the single greatest global health risk. We have known for years that residential proximity to transportation pollution is associated with 50 to 100% increases in risk of lung cancer and cardiovascular mortality, as well as similar increases in risk of childhood asthma.

More recently, a California study with exposure analysis assisted by experts at Sonoma, the company responsible for EPA's AirNow network, has found that the children of women who were most exposed to transportation pollution during their pregnancies have three times the risk of developing autism of children whose mothers were not so exposed. I have attached the Volk study, with its mother and child autism findings, for your MEPA and MassDOT project records.

It would be helpful if the MEPA Draft EIR scope can require that MassDOT detail the full level n 22.8
of transportation related noise and air pollution affecting Chinatown and other nearby neighborhoods, including the NAAQS pollutants but also air toxics, diesel PM, and ultrafine particle levels determined with quality bench instruments. It would also be nice if MassDOT details the subtantive contributions it can make to cleaning up the air in Chinatown, including its residences and schools, and what MassDOT might additionally contribute to Chinatown neighborhood livability more generally.

Notwithstanding a severe shortage of public revenue sources, in the Los Angeles and Long Beach Ports area of southern California all the elementary schools of Wilmington are being outfitted with HEPA filters, and all of the diesel trucks serving the ports have been required to accelerate clean diesel retrofit technologies. In San Francisco, some projects associated with large air pollution exposures are now required to provide residential HEPA filtration. The transportation, public health and air quality management agencies of California take their obligation to protect citizens and workers from the environmental health hazards of diesel emissions very seriously.

It would be nice if Massachusetts and MassDOT assumed similar levels of protective responsibility. 1 realize that our public servants are extremely conscientious, and often overworked and underpaid. Thus it is difficult to ask anyone to do more than what has been previously expected. But the cumulative environmental health effects imposed upon Chinatown and other nearby neighborhoods are already very large and will increase with South Station Expansion unless a concerted effort is made to lessen all future damages.

Any environmental improvements that MEPA can suggest for study and that MassDOT can eventually offer as mitigation in the real world would be greatly appreciated.

With Best Regards,

Wig Zamore

Volk paper and Updated Environmental Epidemiology references attached.

Online First

Traffic-Related Air Pollution, Particulate Matter, and Autism

Heather E. Volk, PhD, MPH; Fred Lurmann; Bryan Penfold; Irva Hertz-Picciotto, PhD; Rob McConnell, **MD**

Context: Autism is a heterogeneous disorder with gene tie and environmental factors likely contributing to its origins. Examination of hazardous pollutants has suggested the importance of air toxics in the etiology of autism, yet litde research has examined its association with local levels of air pollution using residence-specific exposure assignments.

Objective: To examine the relationship between traffic-related air pollution, air quality, and autism.

Design: This population-based case-control study includes data obtained from children with autism and control children with typical development who were enrolled in the Childhood Autism Risks from Genetics and the Environment study in California. The mother's address from the birth certificate and addresses reported from a residential history questionnaire were used to estimate exposure for each trimester of pregnancy and first year of life. Traffic-related air pollution was assigned to each location using a line-source air-quality dispersion model. Regional air pollutant measures were based on the Environmental Protection Agency's Air Quality System data. Logistic regression models compared estimated and measured pollutant levels for children with autism and for control children with typical development.

Setting: Case-control study from California.

Participants: A total of 279 children with autism and a total of 245 control children with typical development.

Main Outcome Measures: Crude and multivariable adjusted odds ratios (AORs) for autism.

Results: Children with autism were more likely to live at residences that had the highest quartile of exposure to traffic-related air pollution, during gestation (AOR, 1.98 195% Cl, 1.20-3.31]) and during the first year oflife (AOR, 3.10 [95% Cl, 1.76-5.57]), compared with control children. Regional exposure measures of nitrogen dioxide and particulate matter less than 2.5 and 10 p.m in diameter (PMis and PM_{1C}) were also associated with autism during gestation (exposure to nitrogen dioxide: AOR, 1.81 [95% Cl, 1.37-3.09]; exposure to PM^: AOR, 2.08 [95% Cl, 1.93-2.25]; exposure to PMi_0: AOR, 2.17 [95% Cl, 1.49-3.16) and during the first year oflife (exposure to nitrogen dioxide: AOR, 2.06 [95% Cl, 1.37-3.09]; exposure to $PM_{2.5}$: AOR, 2.12 [95% Cl, 1.45-3.10]; exposure to PM_{10}: AOR, 2.14 [95% Cl, 1.46-3.12]). All regional pollutant estimates were scaled to twice the standard deviation of the distribution for all pregnancy estimates.

Conclusions: Exposure to traffic-related air pollution, nitrogen dioxide, PM_{25}, and PM_{10} during pregnancy and during the first year of life was associated with autism. Further epidemiological and toxicological examinations of likely biological pathways will help determine whether these associations are causal.

Arch Gen Psychiatry.
Published online November 26, 2012.
doi:l 0.1001/jamapsychialry.2013.266

Author Affiliations are listed at the end of this article.

Autism spectrum disorders are a group of developmental disorders commonly characterized by problems in communication, social interaction, and repetitive behaviors or restricted interests.[1] Although the severity of impairment for the autism spectrum disorders varies across the spectrum (full syndrome autism being the most severe), the incidence rate of all autism spectrum disorders is now reported to be as high as 1 in 110 children.[2] Emerging evidence suggests that environment plays a role in autism, yet at this stage, only limited information is available as to what exposures are relevant, their mechanisms of action, the stages of development in which they act, and the development of effective preventive measures.

See related editonál

Recently, air pollution has been examined as a potential risk factor for autism. Using the Environmental Protection Agen-

Table 1. Spearman Correlations of Traffic-Related Air Pollution (TRP) and Regional Pollutants for 524 Children[1]

First Year of Life Estimates	All Pregnancy Estimates				
	TRP	PM_{jj}	PM,i	Ozone	Nitrogen Dioxide
TRP	0 S2[6]	0 36°	033°	-0 36°	0 80°
$PM_{2.5}$	0 25°	0 57»	0 77°	-011°	0 63[f]
PM_{iS}	0 27°	084°	0 82[s]	013°	0 66°
tame	-0 31°	026[d]	027[d]	074»	-0 29°
Nitrogen diovidp	0 58°	060[d]	0 64[d]	-019°	0 89°

Abbreviations: PM_{jj} , particulate matter less than 2.5 p,m in aerodynamic diameter; PM_{10}, particulate matter less than 10 pm In aerodynamic diameter.
[a]AII correlation measures were statistically significant (P< .05).
[b] Correlations ot the same pollutant across time periods.
'Correlations across pollutants within pregnancy.
[d] Correlations across pollutants within the first year of life.

cy's dispersion-model estimates of ambient concentrations of hazardous air pollutants, Windham and colleagues[3] identified an increased risk of autism based on exposure to diesel exhaust particles, metals (mercury, cadmium, and nickel), and chlorinated solvents in Northern California census tracts. Additional research using dispersion-model estimates of hazardous air pollutants also reported associations between autism and air toxics at the birth residences of children from North Carolina and West Virginia.[4] These epidemiologic findings on autism are supported by additional research[5,6] describing other physical and developmental effects of air pollution due to prenatal and early life exposure. For example, high levels of air pollutants have been associated with poor birth outcomes, immunologic changes, and decreased cognitive abilities.[5,6]

Recently, we reported an association between the risk of autism and an early life residence within 309 m of a freeway in the Childhood Autism Risks from Genetics and the Environment (CHARGE) study.[7] The near-source traffic-related air pollutant mixture has a large spatial variation, returning to near-background daytime levels beyond this distance.[8,9] Herein, we report associations of autism with estimates of exposure to the mixture of traffic-related air pollution and with regional measures of nitrogen dioxide, particulate matter less than 2.5 p.m in aerodynamic diameter ($PM_{2.5}$), and particulate matter less than 10 pm in aerodynamic diameter (PMi_0) in the CHARGE sample.

METHODS

The CHARGE study is a population-based case-control study of preschool children. The study design is described in detail elsewhere.[10] In brief, the participants in the CHARGE study were between the ages of 24 and 60 months at the time of recruitment, lived with at least one English- or Spanish-speaking biologic parent, were bom in California, and lived in one of the study catchment areas. Recruitment was facilitated by the California Department of Developmental Services, the regional centers with which they contract to coordinate services for persons with developmental disabilities, and referrals from the MIND (Medical Investigation of Neurodevelopmental Disorders) Institute clinic at the University of California, Davis, and from other research studies. Population-based control children were recruited from the sampling frame of birth files from the state of California and were frequency matched by sex, age, and broad geographic area to the children with autism.

Each participating family was evaluated. Children with a previous diagnosis of autism were evaluated using the Autism Diagnostic Observation Schedules, and parents were administered the Autism Diagnostic Interview-Revised.[11,12] Children who received a diagnosis of developmental delay and control children from the general population were given the Social Communication Questionnaire to screen for the presence of autistic features.[13] If the Social Communication Questionnaire score was 15 or greater, the child was then evaluated using the Autism Diagnostic Observation Schedules, and the parent was administered the Autism Diagnostic Interview-Revised. In our study, autism cases were children with a diagnosis of full syndrome autism from both the Autism Diagnostic Observation Schedules and the Autism Diagnostic Interview-Revised. All children were also assessed using the Mullen Scales of Early Learning and the Vineland Adaptive Behavior Scales to collect information on motor skills, language, socialization, and daily living skills.[14,15] Controls were children from the general population who received a Social Communication Questionnaire score of less than 15 and who also showed no evidence of other types of delay (cognitive or adaptive).

Parents were interviewed to obtain, among other factors, demographic and medical information and residential histories. Race/ethnicity data were collected by self-report in categories defined by the US Census (**Table 1**). The residential data captured addresses and corresponding dates the mother and child lived at each location beginning 3 months before conception and extending to the most recent place of residence. Further details about the collection of clinical and exposure data have been previously reported.[10]

To obtain model-based estimates of exposure to traffic-related air pollution, we applied the CAL1NE4 line-source air-quality dispersion model.[16] The dispersion model was used to estimate average concentrations for the specific locations and time periods (trimesters of gestation and first year of life) for each participant.. The principal model inputs are roadway geometry, link-based traffic volumes, period-specific meteorological conditions (wind speed and direction, atmospheric stability, and mixing heights), and vehicle emission rates. Detailed roadway geometry data and annual average daily traffic counts were obtained from Tele Atlas/Geographic Data Technology in 2005. These data represent an integration of state-, county-, and city-level traffic counts collected between 1995 and 2000. Because our period of interest was from 1997 to 2008, the counts were scaled to represent individual years based on estimated growth in county average vehicle-miles-traveled data,[17] Traffic counts were assigned to roadways based on location and street names. Traffic volumes on roadways without count data (mostly small roads) were estimated based on median volumes for similar class roads in small geographic regions. Meteorological data

from 56 local monitoring stations were matched to the dates and locations of interest. Vehicle fleet average emission factors were based on the California Air Resource Board's EMFAC2007 (version 2.3) model. Annual average emission factors were calculated by year (1997-2008) for travel on freeways (65 mph), state highways (50 mph), arterials (35 mph), and collector roads (30 mph) (to convert to kilometers, multiply by 1.6). We used the CAL1NE4 model to estimate locally varying ambient concentrations of nitrogen oxides contributed by freeways, nonfreeways, and all roads located within 5 km of each child's home. Previously, we have used the CA1INE4 model to estimate concentrations of other traffic-related pollutants, including elemental carbon and carbon monoxide, and found that they were almost perfectly correlated (around 0.99) with estimates for nitrogen oxides. Thus, our model-based concentrations should be viewed as an indicator of the traffic-related pollutant mixture rather than of any pollutant specifically.

A second approach was to use the regional air quality data for the exposure assignments for $PM_{2.5}$, PM_{10}, ozone, and nitrogen dioxide. These were derived from the US Environmental Protection Agency's Air Quality System data (http://www.epa.gov/ttn/airs/airsaqs) supplemented by University of Southern California Children's Health Study data for 1997 though 2009.[18] The Children's Health Study continuous PM data were used for a given monitoring station when no Federal Reference/ Equivalent Method data for PM were available from the Air Quality System. The monthly air quality data from monitoring stations located within 50 km of each residence were made available for spatial interpolation of ambient concentrations. The spatial interpolations were based on inverse distance-squared weighting of data from up to 4 of the closest stations located within 50 km of each participant's residence; however, if 1 or more stations were located within 5 km of a residence, then only data from the stations within 5 km were used for the interpolation. Because special studies have shown large offshore-to-onshore pollutant gradients along the Southern California coast, the interpolations were performed with pseudostations (or theoretical locations used for estimating pollution gradients from extant data when geography did not permit observed data) located approximately 20 to 40 km offshore that had background concentrations based on long-term measurements (1994-2003) at clean coastal locations (ie, Lompoc, California).

Periods and locations relevant to the modeled traffic exposure were identified based on dates and addresses recorded on the child's birth certificate and from the residential history questionnaire. The birth certificate addresses corresponded to the mother's residence at the time of the child's birth, whereas the residential history captures both the mother's residences during pregnancy (required for estimation of prenatal exposure) and the child's residences after birth through the time of study enrollment. We determined the conception date for each child using gestational age from ultrasonographic measurements or the date of last menstrual period, as determined from prenatal records. We used these locations and dates to estimate exposure for the child's first year of life, for the entire pregnancy period, and for each trimester of pregnancy. When more than 1 address fell into a time interval, we created a weighted average to reflect the exposure level of the participant across the time of interest, taking into account changes in residence. Traffic-related air pollution was determined based on the required inputs reflecting change in each address over the study period. For the regional pollutant measures, we assigned $PMi_{,5>}$ PM_{10}, and nitrogen dioxide measurements based on average concentrations for the time period of interest. For ozone, we calculated the averages for the period of interest based on the average range of ozone measurements from 1000 to 1800 hours (reflecting the high 8-hour daytime). Based on these methods, we were able to assign traffic-related air pollutant estimates and regional pollutant measures for 524 mother-child pairs.

Spearman correlations were calculated pairwise between traffic-related air pollutant estimates and regional pollution measures for pregnancy and the first year of life to assess the independence of these exposure metrics. We used logistic regression to examine the association between exposure to traffic-related air pollution and the risk of autism. Models of autism risk as a function of traffic-related air pollutant exposure levels from all road types were fitted separately for each time period. Categories of exposure were formed based on quartiles of the traffic-related air pollutant distribution for all pregnancy estimates because this provided the most comprehensive data for each child. Levels of regional pollutants were examined as continuous variables, and effect estimates were scaled to twice the standard deviation of the distribution for all pregnancy estimates. When levels of correlation permitted, we examined both traffic-related air pollutants and regional pollutants in a single model. Pertinent covariates were included in each model to adjust for potential confounding due to sociodemographic and lifestyle characteristics. We included children's sex and ethnicity, maximum education level of the parents, mother's age, and whether the mother smoked during her pregnancy, as described previously.[7] To examine whether our findings were affected by participants living in an urban or rural area, we included population density, which was obtained from Environmental Systems Research Institute Inc 2008 estimates of people per square meter using ArcGIS software version 9.2. We used the US Census Bureau cutoff of 2500 people per square meter to categorize population density into urban vs rural areas and included this variable as a covariate in our analysis of the effects of air pollution from the first year of life because these residences were the most recently recorded.

We also fitted logistic additive models to evaluate the relationship between autism and traffic-related air pollution. These models used the smoothing spline with 3 degrees of freedom for continuous traffic-related air pollution and used the same adjustment variables as in the linear logistic models already described. Statistical tests were conducted using an α level of .05, and 95% CIs were used to measure precision. All analyses were conducted using the R package version 2.9.2 (http://www.r-project.org). The institutional review boards of the University of Southern California and the University of California, Davis, approved the research.

RESULTS

The children in our study were predominantly male (84%), and most were non-Hispanic white (50%) or Hispanic (30%). No differences were found between cases and controls for any demographic, socioeconomic, or lifestyle variables that we examined (eTable, http://www.archgenpsychiatry.com). Details regarding the exposure distributions are presented in the eFigure, A and B. The Spearman correlations calculated for the first year of life and the pregnancy time periods are presented in Table 1. During pregnancy and during the first year of life, traffic-related air pollution was moderately correlated with PM_{is} and PMio, highly correlated with nitrogen dioxide, but inversely correlated with ozone. Among the regional pollutant measures, PM_{2s} and PMio were nearly perfectly correlated, and both were highly correlated with nitrogen dioxide. Correlations with ozone were low and often negative, demonstrating an inverse relationship. We also examined correlations of eachpollut-

Table 2. Risk □! Autism for 524 Children, by Quartile[a] of Modeled Traffic-Related Air Potiutien Exposure From All Road Types

Time Period	Odds Ratio (95% Cl) 4tti Quartile	3rd Quartile	2nd Quartile
First year 0l life			
Crude	2 97*11* 71-5 £7)	*1*.00 (0 S3-1 60)	P 88 (0 55-1 42)
Adjusted[13]	3.10 (1 76-5 57)	1.00 (0.62-1 62}	0 91 (0 56-1 47)
All pregnancy			
Crude	1 99 (1 22-3 28)	1 10 (0.67-1 78)	1 20 (0 74-1 95)
Adjusted[11]	1 98 (1 20-3 31)	1 09 (0.67-1 79)	1 26 (0 77-2 06)
First trimester			
Crude	1 91 (1 67-3 14)	1 28 (0 80-2 06)	1 28 (0 77-2 1 4)
Adjusted*[1]	1 85 i_1 11-3 08)	1 28 (0.79-2 08)	1 28 (0 77-2 1 5)
Second trimester			
Crude	1 69 (1 04-2 78)	1 15 (0 71-1 87)	0 89 (0 £4-1 47)
Adjusted[11]	1 65 (1.00-274)	1 13 (0 69-1 84)	0 90 (0 54-1 49)
Third trimester			
Crude	2 04 (1 25-3 38)	092 (057-1 48)	1 12 <0 68-1 84)
Adjusted[11]	210(1 27-351)	091(056-146)	1 17(0 71-1.93}

[a]Quartile cut points correspond to traffic-related air pollution exposure levels of 31.8 ppb or greater (fourth quartile), 16.9 to 31.8 ppb (third quartile), and 9.7 to 16.9 ppb (second quartile), compared with 9.7 ppb or less (first quartile [reference group]).

[b]Model adjusted for male sex of child, child's ethnicity (Hispanic vs white; black/Asian/other vs white), maximum education of parents (parent with highest of 4 levels: college degree or higher vs same high school, high school degree, or some college education), maternal age (>35 years vs s35 years), and prenatal smoking (mother's self-report of ever vs never smoked while pregnant).

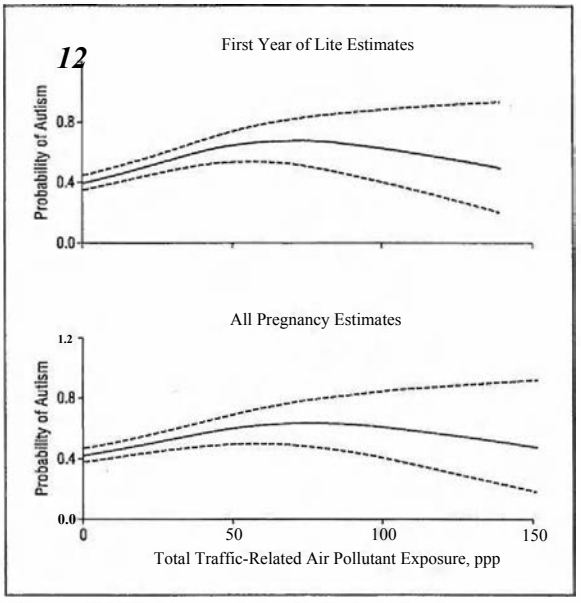

Figure. Probability of autism by increasing level of children's exposure to traffic-related air pollution during the first year of life and during gestation. The dashed lines indicate ihe 95% Cl.

ant across time periods, and high levels of correlation were identified.

EXPOSURE TO TRAFFIC-RELATED AIR POLLUTION

An increased risk of autism was associated with exposure to traffic-related air pollution during a child's first year oflife. Children residing in homes with the highest levels of modeled traffic-related air pollution were 3 times as likely to have autism compared with children residing in homes with the lowest levels of exposure **(Table 2).** Exposure in the middle quartile groups (second and third quartiles) was not associated with an increased risk of autism. In our analysis, which included population density, this association with the highest quartile of exposure was still evident (adjusted odds ratio [AOR], 3.48 [95% Cl, 1.81-6.83]), and living in an urban area, compared with living in a rural area, was not associated with autism (AOR, 0.86 [95% Cl, 0.56-1.31]). When we examined traffic-related air pollutant exposures during pregnancy, the highest quartile was also associated with autism risk (AOR, 1.98 [95% Cl, 1.20-3,31]) compared with the lowest quartile. We further divided the pregnancy into 3 trimesters and modeled traffic-related air pollution based on these intervals. During all 3 trimesters of pregnancy, we found associations with the highest quartile of exposure (S31.8 ppb), compared with the lowest quartile (s9.7 ppb), and autism (Table 2). Inclusion of demographic and socioeconomic variables in the models did not greatly alter these associations (Table 2).

Because our quartile-based categories indicated that there is a threshold upon which traffic-related air pollutant exposure is detrimental, we also examined the relationship between traffic-related air pollutant exposure and autism using smoothed models for the first year oflife and all of pregnancy. An increasing probability of autism was seen with increasing traffic-related air pollutant estimates, with the odds reaching a plateau when these estimates were above 25 to 30 ppb **(Figure).**

REGIONAL AIR POLLUTANT EXPOSURE

The higher levels of exposure to $PM_{2.5}$, PM_{10}, and nitrogen dioxide based on the Environmental Protection Agency's regional air quality monitoring program were associated with an increased risk of autism **(Table 3).** Specifically, for an 8.7-unit increase (micrograms per cubic meter) in PM_{10} (corresponding to twice the standard deviation of the $PM_{2.5}$ distribution) exposure during the first year of life, children were 2.12 times more likely to have autism. Increases were also present for pregnancy and trimester-specific estimates of $PM_{2.5}$, with the smallest effects present in the first trimester. For PM_{10}, a 14.6-unit increase (micrograms per cubic meter) during the first year was associated with twice the risk of autism (Table 3). Associations were present for pregnancy and for each trimester, with the first trimester having the smallest magnitude. We did not find associations between levels of regional ozone and autism. Regional nitrogen dioxide exposure during the first year was associated -with a 2-fold risk of autism. Similar effects were identified for nitrogen dioxide exposure during pregnancy. Although exposure during each of the 3 trimesters was associated with autism, the effects of the first trimester were the smallest. For all regional pollutant measures, adjustment for demographic and socioeconomic

Table 3. Risk of Autism for 524 Children Based on Continuous Regional Pollutant Exposure[9]

Time Period	Odds Ratio (95% Cl)			
	PMes	$PM_{,,}$	Ozone	Nitrogen Dioxide
Firsl year				
Crude	214(1 48-3 09)	214(147-310)	1 15(0 72-1 84)	2 06 (1 39-3 06J
Ad|usted[b]	2 12 n 45-3 10)	214(146-312)	1 15(0 72-1 86)	2.06 (1 37-3 09)
All pregnancy				
Crude	211 (1 46-3 03)	217(1 50-313)	1 08 (0 76-1 52)	1 82 (1 26-2 641
Ad|usted[b]	208 (1 93-2 25)	217(149-316)	1 09(0 76-1 55)	1 81 (1 23-2 65)
First trimester				
Crude	124 (0 99 1 56)	147(110-1 98)	1 07 (0 86-1 33)	1 47(1 07-2 01)
Adjusted[15]	1 22 (0 96-1 53)	1 44 (1 07-1 96)	1 08 (0 801 35)	1 44 *0* 05-1 20)
Second trimester				
Crude	1 50 (1 16-1 93)	1 82 (1 35-2 45)	1 03 (0 84-1 2 7)	1 62 H 17-2 25)
Adjusted[0]	1 48 (1 40-1 57)	1 83 (1 35-2 47)	1 04 (0 84-1 29)	1 61 (1 15-2 251
Third tnmester				
Crude	139(1 11-1 75)	161(121-213)	1 03 (0 84-127)	1 65 (1 19-2 27)
Adjusted[15]	140(1 11-1 77)	1 61 (1 20-2 14)	1 03(0 83-126)	1 64 (1 18-2 29)

Abbreviations: PM^, particulate matter less than 2.5 p.m in aerodynamic diameter; $PM_{,0}$. particulate matter less than 10 p.m in aerodynamic diameter.

'Regional pollution effects reflect risk of autism based on 2 SDs from the mean value, specifically per increase of 8.7 p.g/m³ of PM^, 14.6 pg/m³ of PM_{10}, 14.1 ppb of nitrogen dioxide, and 16.1 ppb of ozone.

"Models adjusted for male sex of child, child's ethnicity (Hispanic vs white; black/Asian/other vs white), maximum education of parents (parent with highest of 4 levels: college degree or higher vs some high school, high school degree, or some college education), maternal age (>35 years vs £35 years), and prenatal smoking (self-report of ever vs never smoked While pregnant).

variables did not alter the associations. As with traffic-related air pollution, when we included population density in the models that included exposure during the first year oflife, the associations with PM_{25}, PM_{10}, and nitrogen dioxide did not change, nor did they change when living in an urban area vs a rural area was included (data not shown).

TRAFFIC-RELATED AIR POLLUTION, $pm_{2\cdot5}$, AND PM_{10}

Because pairwise correlations between traffic-related air pollution and PM_{25}, and between traffic-related air pollution and PM_{10} were moderate, we included both in models to examine whether local pollution estimates (traffic-related air pollution) and regional pollution measures (PM_{15} and PM_{10}) were independendy associated with autism. In these analyses, we included the same set of covariates already described in the single pollutant analysis. When examined in the same model, the top quartile of traffic-related air pollutant exposure (AOR, 2.37 [95% Cl, 1.28-4.45]) and the exposure to $PM_{2.5}$ (AOR, 1.58 [95% Cl, 1.03-2.42]) during the first year oflife remained associated with autism. Examining both traffic-related air pollution and PM_{10}, we found that the top quartile of traffic-related air pollutant exposure (AOR, 2.36 [95% Cl, 1.28-4.43]) and the exposure to PM_{10} (AOR, 1.61 [95% Cl, 1.06-2.47]) remained associated with autism. For the all pregnancy time interval, we found that the top quartile of traffic-related air pollutant exposure (AOR, 2.42 [95% Cl, 1.32-4.50]) and the exposure to PMu (AOR, 1.60 [95% Cl, 1.07-2.40]) were associated with autism when examined in the same model. Similarly, both the top quartile of traffic-related air pollutant exposure (AOR, 2.33 [95% Cl, 1.27-4.36]) and the exposure to PM_{l0} (AOR, 1.68 [95% Cl, 1.11-2.53]) remained associated with autism when examined jointly.

COMMENT

Our study found that local estimates of traffic-related air pollution and regional measures of $PM_{2\cdot5}$, $PM]_0$, and nitrogen dioxide at residences were higher in children with autism. The magnitude of these associations appear to be most pronounced during late gestation and early life, although it was not possible to adequately distinguish a period critical to exposure. Children with autism were 3 times as likely to have been exposed during the first year of life to higher modeled traffic-related air pollution compared with control children with typical development. Similarly, exposure to traffic-related air pollution during pregnancy was also associated with autism. Examination of traffic-related air pollution using an additive logistic model demonstrated a potential threshold near 25 to 30 ppb beyond which the probability of autism did not increase. Exposure to high levels of regional $PM_{2.5}$, $PM]_0$, and nitrogen dioxide were also associated with autism. When we examined $PM_{2.5}$ or $PM_{,}$ exposure jointly with traffic-related air pollutant exposure, both regional and local pollutants remained associated with autism, although the magnitude of the effects decreased.

We previously reported an association between living near a freeway (based on the location of the birth and third trimester address) and autism.[7] That result relied on simple distance metrics as a proxy for exposure to traffic-related air pollution. The present study builds on that result, demonstrating associations with both regional particulate and nitrogen dioxide exposure and to dispersion-modeled exposure to the near-roadway traffic mixture accounting for traffic volume, fleet emission factors, and wind speed and direction, in addition to traffic proximity. The results provide more convincing evidence that exposure to local air pollution from traffic may increase

the risk of autism. Demographic or socioeconomic factors did not explain these associations.

Toxicological and genetic research suggests possible biologically plausible pathways to explain these results. Concentrations of many air pollutants, including diesel exhaust particles and other PM constituents, are increased near freeways and other major roads, and diesel exhaust particles and polycyclic aromatic hydrocarbons (commonly present in diesel exhaust particles) have been shown to affect brain function and activity in toxicological studies.[19,23] Polycyclic aromatic hydrocarbons have been shown to reduce expression of the MET receptor tyrosine kinase gene, which is important in early life neurodevelopment and is markedly reduced in autistic brains.[2,1-25] Other research indicates that traffic-related air pollution induces inflammation and oxidative stress after both short- and long-term exposure, processes that mediate the effects of air pollution on respiratory and cardiovascular disease and other neurological outcomes.[26,29] Data examining biomarkers suggest that oxidative stress and inflammation may also he involved in the pathogenesis of autism,[30,33]

Emerging evidence suggests that systemic inflammation may also result in damage to endothelial cells in the brain and may compromise the blood-brain barrier.[29] Systemic inflammatory mediators may cross the blood-brain barrier, activating brain microglia, and peripheral monocytes may migrate into the pool of microglia.[34,36] In addition, ultrafine particles (PM_0.i) may penetrate cellular membranes.[37-39] These particles translocate indirectly through the lungs and from the systemic circulation or directly via the nasal mucosa and the olfactory bulb into the brain.[39-40] Toxicity may be mediated by the physical properties of PM or by the diverse mixture of organic compounds, including polycyclic aromatic hydrocarbons, and oxidant metals adsorbed to the surface.[29] Neurodevelopmental effects of polycyclic aromatic hydrocarbons may be mediated by aryl hydrocarbon hydroxylase induction in the placenta, decreased exchange of oxygen secondary to disruption of placental growth factor receptors, endocrine disruption, activation of apoptotic pathways, inhibition of the brain antioxidant-scavenging system resulting in oxidative stress, or epigenetic effects.[21]

Our study draws on a rich record of residential locations of children with typical development and children with autism across California, allowing us to assign modeled pollutant exposures for developmental^ relevant time points. However, our results could also be affected by unmeasured confounding factors associated with both autism and exposure to traffic-related air pollution. Although we did not find that including demographic or socioeconomic variables altered our estimates of effect, confounding by other factors could still occur. These might include lifestyle, nutritional, or other residential exposures, if they were associated with traffic-related air pollution or PM. We have also not explored indoor sources of pollution, such as indoor nitrogen oxide or secondhand tobacco smoke, although prenatal smoking was examined and did not influence the associations of ambient pollution -with autism. In addition, confounding could have occurred if proximity to diagnosing physicians or treatment centers was also associated with exposure. We included population density as an adjustment in an analysis using estimates from the first year of life to examine the sensitivity of our results to urban or rural locations, for which population density is a surrogate. We did not find that living in a more densely populated area altered the association between risk of autism and exposure to traffic-related air pollution or regional pollutants. Despite our attempts to use residential history to examine specific time windows of vulnerability, to incorporate meteorology into our traffic-related air pollutant models, and to include pollutants with seasonal variation, we are currently unable to disentangle the trimester-specific effects during the first year oflife because of the high level of correlation across these time periods.

Exposures to traffic-related air pollution, PM, and nitrogen dioxide were associated with an increased risk of autism. These effects were observed using measures of air pollution with variation on both local and regional levels, suggesting the need for further study to understand both individual pollutant contributions and the effects of pollutant mixtures on disease. Research on the effects of exposure to pollutants and their interaction with susceptibility factors may lead to the identification of the biologic pathways that are activated in autism and to improved prevention and therapeutic strategies. Although additional research to replicate these findings is needed, the public health implications of these findings are large because air pollution exposure is common and may have lasting neurological effects.

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Note that the health risks associated with traffic pollution as calculated in most of the studies below are AFTER taking into consideration other potential causes of health impact - such as smoking, diet, income and other personal and socioeconomic factors.

Benbrahim Tallaa 2012 LO Carcinogenicity of diesel engine and gasoline engine exhausts and some nitroarenes. Formal WHO IARC announcement in Lancet Oncology of designation of diesel emissions as a Class I carcinogen for lung cancer. (ARC is the world's most authoritative body for carcinogenicity.

Choi 2010 NBT Rapid translocation of nanoparticles from the lung airspaces into the body. Nanoparticles with characteristics similar to mobile ultrafine particles translocate rapidly into the cardiovascular and lymph systems using a rodent model.

Cole Hunter 2012 AE DRAFT Inhaled particle counts along bicycle commute routes of tow and high motorized traffic. Bicycle commuting routes which are chosen for low traffic and particle exposure result in significantly decreased ultrafine particle dose to cyclists.

Delfino 2008 EHP Circulating biomarkers of inflammation antioxidant activity and platelet activation are associated with primary combustion aerosols in subjects with coronary artery disease. Mobile pollution is related to biomarkers of cardiovascular inflammation.

Forastiere 2005 AJRCC A case cross over analysis of out of hospital coronary deaths and air pollution in Rome Italy. Increase in coronary deaths associated with increase in ultrafine particle concentrations.

Gan 2010 EPID Changes in residential proximity to road traffic and the risk of death from coronary heart disease. Over 50% increased chronic risk of cardiovascular death for those living within 50 meters of highways in Vancouver. Risk decreases for those moving away, increases for those who move closer.

Gan 2011 EHP Long term exposure to traffic related air pollution and the risk of coronary heart disease hospitalization and mortality. Cardiovascular mortality is related to traffic exposures.

Garshick 2008 EHP Lung cancer and vehicle exhaust in trucking industry workers. Trucking industry workers have significantly elevated risk of lung cancer mortality.

Gauderman 2005 EPIDEM Childhood Asthma and Exposure to Traffic and Nitrogen Dioxide. Large increases in childhood asthma for children most exposed to traffic pollution in California.

Gauderman LANCET 2007 Effect of exposure to traffic on lung development from 10 to 18. Increased lung function impairment in children who grew up near highways in California.

Gehring 2006 EPIDEM Long Term Exposure to Ambient Air Pollution and Cardiopulmonary Mortality in Women. Large increase in cardiopulmonary mortality for women who live near major roadways.

Grabow 2011 EHP Air quality and exercise related health benefits from reduced car travel in the Midwestern US. A Health Impact Assessment quantifies air pollution and exercise benefits of bicycling.

Harrison 2010 STE Size distribution of airborne particles controls outcome of epidemiological studies. Ultrafine particles are more closely associated with acute cardiovascular outcomes while larger particles may be more closely associated with pulmonary outcomes.

Hoffmann 2006 EHJ Residence Close to High Traffic and Prevalence of Coronary Heart Disease. Coronary heart disease is elevated for those who live near busy roadways in Germany.

Hoffmann 2007 CIRC Residential exposure to traffic is associated with coronary atherosclerosis. Coronary artery calcification is associated with proximity to major roadways in Germany.

Int Panis 2010 ÀE Exposure to particulate matter in traffic a comparison of cyclists and car passengers. Bicyclists have four to six times the ventilation rates, and therefore inhaled dose, when cycling along traffic polluted routes compared with those who are not bicycling.

Jerrett 2009 EHP A cohort study of traffic related air pollution and mortality in Toronto. Cardiovascular mortality is related to traffic pollution exposure in Toronto.

Laden 2007 EHP Cause specific mortality in the unionized US trucking industry. Lung cancer and ischemic (impaired oxygen supply) heart disease mortality is related to truck driver exposures.

McConnell 2006 EHP Traffic Susceptibility and Childhood Asthma, increased childhood asthma risk for those living near major roadways in California.

McConnell 2010 Childhood incident asthma and traffic related air pollution at home and school. Increased risk of asthma for those children who live and/or go to school near major roadways in California.

Mills 2007 NEJM Ischemic and thrombotic effects of dilute diesel exhaust inhalation in men with coronary heart disease. Increased oxygen crisis in the heart muscle of men who exercise in the presence of diesel exhaust compared to filtered air.

Mills 2011 EHJ Combustion derived nanoparticulate induces the adverse vascular effects of diesel exhaust inhalation. Diesel related ultrafine particles associated with cardiovascular effects.

Nafstad 2003 THORAX Lung Cancer in Norwegian men and Air Pollution. Large increased risk of lung cancer in Oslo men most exposed to traffic pollutants via residential location.

Nawrot 2011 LANCET Public health importance of triggers of myocardial infarction. The most common heart attack triggers in general population are exercise and elevated exposure to traffic pollution. Long term the exercise is good, but the traffic exposure is deadly.

Nyberg 2000 EPIDEM Urban Air Pollution and Lung Cancer in Stockholm. Large increased risk of lung cancer in Stockholm men most exposed to traffic pollutants via residential location.

Peters 2004 NEJM Exposure to Traffic and the Onset of Myocardial Infarction. Recent traffic exposure associated with three fold increase in heart attacks among drivers, public transit users and bicyclists.

Rosenlund 2009 EPID Traffic generated air pollution and myocardial infarction. Large increase in fatal out of hospital heart attacks among those most exposed via residential location to traffic pollution.

Schikowski 2005 RESP RES Long Term Air Pollution Exposure and Living Close to Busy Roadways Are Associated with COPD in Women. Pulmonary mortality in women associated with residential exposure to traffic pollution.

Stölzet 2006 JESEE Daily Mortality and Particulate Matter in Different Size Classes. Short term total and cardiovascular mortality associated with ultrafine particles.

Volk 2012 AGP Traffic related air pollution particulate matter and autism. Infants with the highest 25% exposure to CA traffic pollutants in their first year of life had 3 times as much risk of autism.

Wilhelm 2011 EH Traffic related air toxics and preterm birth. Preterm birth associated with traffic pollutants and polycyclic aromatic hydrocarbon at residence.

9.3. Responses to Comments

Table 9-1—MEPA Certificate

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.1	MEPA	Follow 301 CMR 11.07 for outline and content, modified by scope.	DEIR complies with requirements of 301 CMR 11.07.
C-01.2	MEPA	Include detailed description of project and describe project changes since ENF.	DEIR Chapter 1 addresses project description and changes since the ENF.
C-01.3	MEPA	Include updated South Station conceptual site plans that identify access points, wetland/Chapter 91 resources, parking, infrastructure	Updated South Station conceptual site plans are provided in DEIR Section 3.9.
C-01.4	MEPA	Describe how development scenarios and expanded South Station operations will integrate into existing South Station, including connections to transit and rail.	DEIR Section 3.4 presents design goals for station development. Integration details will be refined as design advances.
C-01.5	MEPA	Include updated layover conceptual site plans that identify track placement, infrastructure, access points, new track.	Updated layover conceptual site plans are provided in DEIR Section 3.6.
C-01.6	MEPA	Discuss future permitting requirements with each development scenario and layover facility location.	Permitting is discussed in DEIR Section 1.8.
C-01.7	MEPA	Evaluate effects of project alternatives on Environmental Justice populations.	Environmental Justice analysis is discussed in DEIR Section 4.15 and Appendix 3 – *Environmental Justice and Title VI Technical Report*.
C-01.8	MEPA	Include expanded alternatives analysis for South Station, to consist of: No Build; Alternative 1-Transportation Improvements Only; Alternative 2-Joint/Private Development Minimum Build; Alternative 3 – Joint/Private Development Maximum Build.	DEIR Chapter 3 presents the alternatives analysis.
C-01.9	MEPA	Include expanded alternatives analysis for layover facilities to consist of: BTD Tow Lot; Beacon Park Yard, Readville - Yard 2, Widett Circle.	MassDOT has further evaluated the BTD Tow Lot, Beacon Park Yard, Readville - Yard 2 and Widett Circle layover facility sites as described in DEIR Section 3.6.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.10	MEPA	Address how location and operation of layover facilities (individually or in conjunction with other facilities) will impact Main Line services for Amtrak, MBTA layover facility alternatives, and freight operations. Include phasing plan.	Each proposed layover facility site was evaluated for its impact to Amtrak and MBTA revenue and non-revenue movements. Freight operations were also considered during the development of the future service plan.
C-01.11	MEPA	Discuss steps to further reduce project impacts since filing of ENF, through design modification or the addition of mitigation features.	The project has been designed to avoid, minimize, or mitigate impacts, to the greatest extent possible. Proposed mitigation for project impacts is discussed in DEIR Chapters 1 and 6 and will continue to be refined as the project is advanced.
C-01.12	MEPA	Describe how project will alter land uses/require relocation of existing uses.	Land use impacts are discussed in DEIR Section 4.1. and Appendix 4 – *Zoning and Land Use Technical Report.*
C-01.13	MEPA	Notes that the relocation of the USPS facilities may be subject to separate MEPA review, pending characteristics and location of new facility.	Comment acknowledged.
C-01.14	MEPA	Describe potential impacts to jurisdictional tidelands, public benefits requirements, public realm improvements along Dorchester Avenue.	DEIR Section 4.3 addresses potential impacts to jurisdictional tidelands. Chapter 7 includes a public benefit review and determination.
C-01.15	MEPA	Discuss easements/impacts to Article 97 lands within vicinity of South Station.	No Article 97 lands exist within the vicinity of South Station.
C-01.16	MEPA	Discuss land impacts associated with layover facilities, including impacts to existing, required easements, existing land uses within site.	Land use impacts are discussed in DEIR Section 4.1. and Appendix 4 – *Zoning and Land Use Technical Report*.
C-01.17	MEPA	Work with Boston Department of Public Works regarding BTD Tow Lot.	MassDOT met with Boston DPW and BTD Tow Lot personnel on March 13, 2013 to better understand existing City operations and potential impacts attributed to the proposed layover facility at this location as discussed in DEIR Section 3.6.
C-01.18	MEPA	Respond to Harvard University's comments regarding Beacon Park Yard and existing easements/rights afforded to the MBTA, MassDOT, CSXT, Harvard University.	See Comment N-05 for response to Harvard University comments and N-05.1 in particular for response to comment regarding Beacon Park Yard.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.19	MEPA	Additionally, the DEIR should evaluate the use of each layover site with consideration for how they may preclude reasonably anticipated future projects by MassDOT (highway or commuter rail service), anticipated future Amtrak service, projects identified in State and local planning documents, or development rights vested to Harvard University	MassDOT has further evaluated the BTD Tow Lot, Beacon Park Yard, Readville - Yard 2 and Widett Circle layover facility sites as described in DEIR Section 3.6.
C-01.20	MEPA	Verify presence of wetland resource areas and assess consistency with performance standards as established by MA Wetlands Protection Act.	DEIR Section 4.2 documents compliance with Massachusetts Coastal Zone Management (CZM) Policies..
C-01.21	MEPA	Include Federal Consistency Assessment in DEIR.	This information is provided in DEIR Section 4.3 and Appendix 6 - *Coastal Resources Technical Report* documents compliance with Chapter 91 licensing criteria.
C-01.22	MEPA	Include conceptual design plans and graphics providing Chapter 91 jurisdictional criteria and demonstrate how each project alternative will meet Chapter 91 licensing criteria for water-dependent and nonwater-dependent uses. Identify existing licenses.	DEIR Section 4.3 and Appendix 6 - *Coastal Resources Technical Report* discusses Chapter 91 jurisdictional material and demonstration of compliance.
C-01.23	MEPA	Meet with MassDEP Waterways program to ensure that the appropriate level of information is provided.	A meeting was held on June 12, 2014 with CZM and MassDEP to review Chapter 91 requirements.
C-01.24	MEPA	Work with City of Boston and CZM to determine requirements of Phase 2 of the Municipal Harbor Plan (MHP).	The BRA has initiated the South Station planning process relative to Fort Point Channel Downtown MHP. MassDOT will coordinate with BRA in regards to the South Station Master Plan.
C-01.25	MEPA	Report on status of MHP planning process, including historic master planning efforts, location and terms of Phase I and Phase 2 MHPs.	DEIR Section 4.3 describes historic master planning efforts relative to Fort Point Channel Downtown MHP.
C-01.26	MEPA	Include results of quantitative wind analysis, focusing on potential wind impacts to new and existing open spaces.	The results of the quantitative wind analysis are addressed in DEIR Section 4.3 and included in Appendix 6 - *Coastal Resources Technical Report.*

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.27	MEPA	Include shadow impact analysis for each development alternative, including Transportation Only Improvements.	The results of the shadow impact assessment for each development alternative are included in DEIR Section 4.3 and in Appendix 6 - *Coastal Resources Technical Report.*
C-01.28	MEPA	Notes that the SSX project is a critical piece of infrastructure for City of Boston and Region, and key operation of the Northeast Corridor (NEC).	Comment acknowledged.
C-01.29	MEPA	Discuss how South Station terminal and layover facilities will be designed to address sea-level rise and flooding impacts, including impacts to public spaces, water and wastewater infrastructure, stormwater management, track operations. Assume 2-foot sea level rise. Consider adaptation strategies previously presented.	DEIR Chapter 5 presents considerations for facility design that will be further evaluated as design progresses.
C-01.30	MEPA	Discuss project's compliance with Public Benefit Determination, per 301 CMR 13.00.	The project's compliance with the provisions of 301 CMR 13.00 regarding Public Benefit Determinations for work in landlocked tidelands is provided in DEIR Chapter 7.
C-01.31	MEPA	Discuss how South Station Terminal and layover facility sites will be designed in compliance with MassDEP's Stormwater Management Regulations, including analysis of flow rates and volumes, proposed Best Management Practices (BMPs), low impact design stormwater management techniques.	DEIR Section 4.5 provides a discussion of potential stormwater BMPs for each site and the project's compliance with the MassDEP Stormwater Standards. Additional details are provided in Appendix 7 - *Water Quality and Stormwater Technical Report*.
C-01.32	MEPA	Include narrative and graphic of existing and proposed storm drainage systems.	DEIR Section 4.5 provides a discussion of potential stormwater BMPs for each site and the project's drainage systems with the MassDEP Stormwater Standards. Additional details are provided in Appendix 7 - *Water Quality and Stormwater Technical Report.*
C-01.33	MEPA	Discuss BMPs to be implemented within proposed parking areas for managing and treating stormwater discharges.	DEIR Section 4.5 provides a discussion of potential stormwater BMPs for each site and the project's drainage systems with the MassDEP Stormwater Standards. Additional details are provided in Appendix 7 - *Water Quality and Stormwater Technical Report.*

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.34	MEPA	Provide estimates of water usage and wastewater generation for South Station and layover facilities, including specific uses and location.	DEIR Section 4.6 provides water usage and wastewater generation estimates for all of the project elements.
C-01.35	MEPA	Confirm availability of water and sewer capacity for each alternative, including identifying if additional mains will be required for the project's components.	Appendix 8 - *Water and Wastewater Technical Report* discusses the water and sewer capacity for each project element. MassDOT has coordinated with BWSC and MWRA on utility connections.
C-01.36	MEPA	Limit or eliminate project demand for irrigation, around South Station and Dorchester Avenue.	DEIR Section 4.6 and Chapter 5 address project goals to limit or eliminate irrigation.
C-01.37	MEPA	Provide narrative and graphic of wastewater system for station and layover facility alternatives from point of origin to point of treatment/discharge, including demonstration that changes to sewers and outfalls will not affect compliance with Federal Court mandates, NPDES permits, and BWSC and MWRA regulations and requirements.	DEIR Section 4.6. and Appendix 8 - *Water and Wastewater Technical Report* address the proposed wastewater systems and compliance with Federal and State permitting requirements.
C-01.38	MEPA	Coordinate with MWRA and BWSC to ensure consistency with applicable requirements and maximum benefits to overall system.	A coordination meeting was held on February 7, 2014 with BWSC and MWRA; coordination is ongoing through the preparation of the DEIR.
C-01.39	MEPA	Discuss compliance with MassDEP's Infiltration/Inflow (I/I) policy and BWSC's policies.	DEIR Section 4.6 and Appendix 8 - *Water and Wastewater Technical Report* address compliance.
C-01.40	MEPA	Prepare Traffic Impact and Access Study, examining existing, interim 2025, and future 2040 No Build and Build alternative conditions, and using Boston Transportation Department and Central Transportation Planning Staff (CTPS) data and methodologies.	DEIR Section 4.8 provides an overview of the Traffic Impact and Access Study for existing, 2025, and 2035 conditions for the No Build and Build Alternatives. Appendix 9 – *Traffic Analysis Technical Report* provides the detailed analysis.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.41	MEPA	Include narrative and graphic of anticipated modifications to existing roadway network associated with each alternative at South Station and/or layover facilities, including modifications to State Highway Layout, South Station Bus Terminal ramps. Include mitigation measures.	DEIR Chapter 3 and Section 4.8 provide an overview of each alternative's anticipated modifications to the existing roadway network and mitigation measures.
C-01.42	MEPA	Describe bus, taxi, and "kiss and ride" accommodations around South Station vicinity, including measures to avoid conflicts with bus operations, pedestrians, bicycles.	Appendix 9 – *Transit Capacity Technical Report* provides the detailed analysis of bus, taxi, and drop-off/pick-up activity along with mitigation measures to avoid conflicts.
C-01.43	MEPA	Confirm provision for expanded Hubway facilities at South Station under each Build alternative.	DEIR Section 4.8 and Appendix 9 – *Traffic Analysis Technical Report* provide an overview of the Hubway facility utilization and a commitment to allow for an expanded South Station Hubway location as demand warrants.
C-01.44	MEPA	Provide narrative and graphic of reopened Dorchester Avenue, including impacts and connections to transit, private vehicle, bus, pedestrians, bicycles, Harborwalk, and adjacent neighborhoods.	DEIR Section 4.8 and Appendix 9 – *Traffic Analysis Technical Report* provide an overview of reopened Dorchester Avenue including illustrations of typical cross-sections.
C-01.45	MEPA	Comply with City of Boston's Complete Streets Initiative.	DEIR Chapter 5 discusses how the SSX project complies with the City of Boston Complete Streets.
C-01.46	MEPA	Provide analysis of impacts of rail ridership upon existing and future MBTA subway and bus route capacity, including effects to MBTA operations within South Station and downtown MBTA subway stations.	DEIR Section 4.7 and Appendix 9 – *Ridership Forecasting Technical Report* summarize the analysis of potential SSX project-related impacts to MBTA public transportation vehicle loading and to station capacity at South Station, Park Street, Downtown Crossing, Government Center, and State Street.
C-01.47	MEPA	Consider design recommendations from WalkBoston to accommodate increased pedestrian volumes.	The street-level concepts associated with the SSX project were all developed using MassDOT and the City of Boston's Complete Streets Guidelines, as presented in DEIR Chapter 5.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.48	MEPA	Discuss planning and funding status of NSRL project and discuss how the SSX project will be designed to not preclude future construction of the NSRL project.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate (EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the Commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.49	MEPA	Provide data on traffic associated with layover facilities, including vehicle access.	Appendix 9 – *Traffic Analysis Technical Report* provides data on the layover facilities street traffic.
C-01.50	MEPA	Provide traffic-related project mitigation measures, such as intersection improvements, pedestrian and bicycle facility upgrades, implementation of a Transportation Demand Management (TDM) Program, including a review of MassDEP recommended TDM measures.	DEIR Section 4.7 and Appendix 9 – *Traffic Analysis Technical Report* include details on traffic-related project mitigation measures, such as intersection improvements, pedestrian and bicycle facility upgrades, implementation of a Transportation Demand Management (TDM) Program, including a review of MassDEP recommended TDM measures.
C-01.51	MEPA	Provide parking analysis, including assessment of measures to reduce structured parking.	DEIR Section 4.7 and Appendix 9 – *Pedestrian Analysis Technical Report* include details on measures taken to reduce parking. Consultations with City of Boston officials resulted in parking ratios that were substantially lower than the ratios for the area established by the Boston Transportation Department - resulting in minimal additional parking associated with Build Alternative 2 and 3.
C-01.52	MEPA	Include results of noise and vibration impact analysis for South Station and layover facility sites, providing existing and design year Build alternatives.	Appendix 11 - *Noise and Vibration Technical Report* presents the results of the noise and vibration analyses at South Station and the three proposed layover facility sites (Widett Circle, Beacon Park Yard, and Readville – Yard 2).
C-01.53	MEPA	Propose abatement measures to mitigate impacts that exceed applicable criteria, including anti-idling regulations, and document BMPs equal to or more stringent than those currently used at layover facilities along the commuter rail. Include feasibility assessment of potential mitigation measures, phasing plan, and identification of responsible parties.	DEIR Chapter 6 addresses Construction BMPs and mitigation measures, including anti-idling regulations that will be implemented through project construction.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.54	MEPA	Discuss locomotive technologies, including Amtrak or MBTA equipment upgrades that could produce air quality benefits Include electrification of rail lines and use of plug-in facilities at layover facility sites.	Due to the benefits that an electrified rail network could offer, MassDOT holds the position that any new construction and expansion of the commuter rail system should not preclude the possibility of electrification in the future. As part of the plans for the South Station Expansion project, clearance and right-of-way designs will be carried out so that they will be able to accommodate electrification in the future. With the current financial and logistical limitations, however, MassDOT is not currently planning any system-wide electrification processes now or in the foreseeable future. Plug-in facilities (shore power) currently exist at Readville - Yard 2. All layover facilities proposed as part of the SSX project will include plug-in facilities as discussed in DEIR Section 4.9.2 and Appendix 10 - *Air Quality Technical Report*.
C-01.55	MEPA	Provide regional emissions inventory as part of air quality analysis, for existing and 2040 No Build, Build and Build with Mitigation alternatives, 2025 Interim.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address air quality.
C-01.56	MEPA	Work with MassDEP to establish study area and methodology for the air quality analysis regional emissions inventory.	MassDOT met with MassDEP to review the air quality protocol was June 4, 2014. Based on the meeting, MassDEP approved the air quality assessment approach.
C-01.57	MEPA	Consider expanding the regional emission inventory pollutants to include air toxics, diesel PM, and ultrafine particulates.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address emission inventory.
C-01.58	MEPA	Provide localized microscale assessment of CO hotspot, or intersection analysis for South Station site and four potential layover facility sites.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address CO hotspots.
C-01.59	MEPA	Discuss measures to limit vehicle idling time.	DEIR Section 4.9 addresses idling policy.
C-01.60	MEPA	Discuss mitigation measures to offset potential air quality impacts.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address mitigation measures.
C-01.61	MEPA	Provide Greenhouse Gas (GHG) analysis for each alternative for two scenarios: Base case and Build with Improvements condition.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address the GHG analysis for the alternatives.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.62	MEPA	Meet with MEPA office, Mass Department of Energy Resources, and MassDEP to confirm modeling assumptions and methodologies.	Meeting conducted on November 26, 2013 to confirm modeling assumptions.
C-01.63	MEPA	Demonstrate that the SSX project can meet the Stretch Energy Code requirements.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address the Stretch Energy Code requirements.
C-01.64	MEPA	Demonstrate that the SSX project elements are LEED certifiable.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address goals to reach LEED certification.
C-01.65	MEPA	Provide types of modeling software and emissions factors utilized in GHG calculations, including energy modeling software to quantify projected energy use from stationary source and energy consumption and mobile source modeling software to predict transportation-related emissions.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address energy modeling software.
C-01.66	MEPA	Document means to mitigate damage to environment to maximum extent possible by providing modeling printouts for each alternative and emission tables comparing Base Case emissions with Build with Improvements Condition; additional, nonquantifiable GHG reductions; TDM measures for alternatives; and GHG emission reductions associated with other mitigation measures.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address modeling scenarios and means to mitigate environmental damage.
C-01.67	MEPA	Use United States Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS) Energy Use Index (EUI) values for modeling Base Case and Build with Improvements scenarios.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address codes and indices used for the GHG analysis for each alternative.
C-01.68	MEPA	Provide Draft Tenant Manual with focus on sustainability and energy efficiency, including strategies that could be adopted as part of private development agreements.	Appendix 12 - *Greenhouse Gas Emissions Technical Report* addresses the Draft Tenant Manual.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.69	MEPA	Include renewable energy evaluation in GHG analysis, including use of window, solar or photovoltaic (PV) panels, geothermal power, purchase of green power.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address renewable energy evaluation.
C-01.70	MEPA	Include separate feasibility analysis of ground-mounted or building-mounted PV systems to offset electric demand or for hot-water heating.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address PV systems analyzed.
C-01.71	MEPA	Assess GHG emissions associated with project-related wastewater.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address GHG emissions related to wastewater.
C-01.72	MEPA	Consider qualitative GHG reduction benefits associated with electric vehicle charge infrastructure.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address GHG impacts due to vehicles.
C-01.73	MEPA	Include assessment of GHG emissions generated by mobile sources, including diesel train operations, idling at South Station and layover facilities, and vehicular traffic.	DEIR Section 4.11 and Appendix 12 - *Greenhouse Gas Emissions Technical Report* address GHG impacts due to mobile sources.
C-01.74	MEPA	Include results of consultations conducted with Massachusetts Historic Commission (MHC).	DEIR Section 4.12 and Appendix 13 - *Historic and Architectural Resources Technical Report* address consultations conducted.
C-01.75	MEPA	Expand summary of historic or archaeological resources potentially affected by project to include Widett Circle.	DEIR Section 4.12 and Appendix 13 - *Historic and Architectural Resources Technical Report* address existing conditions.
C-01.76	MEPA	Identify Area of Potential Effect (APE) for historic and archaeological resources.	Appendix 13 - *Historic and Architectural Resources Technical Report* identifies the APE for historical and archaeological resources.
C-01.77	MEPA	Address potential visual, atmospheric and physical effects of development alternatives on surrounding properties.	DEIR Section 4.12 and Appendix 13 - *Historic and Architectural Resources Technical Report* address project impacts.
C-01.78	MEPA	Consider effect of proposed demolition of USPS facility and construction-related vibration on South Station Headhouse.	DEIR Sections 4.10.1, 4.12.1, and 6.3.2 and Appendix 13 - *Historic Architectural Resources Technical Report* address construction-related vibration impacts.
C-01.79	MEPA	Evaluate potential effects of layover facilities on nearby historic properties.	DEIR Section 4.12 and Appendix 13 - *Historic Architectural Resources Technical Report* address project impacts.
C-01.80	MEPA	Work with MHC, Boston Landmarks Commission and others to develop mitigation measures.	On August 19, 2014 MassDOT received a letter from MHC concurring with the identification and evaluation findings presented in Appendix 13. Coordination with these entities will continue throughout the project.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.81	MEPA	Summarize results of Phase I Environmental Site Assessments (ESAs) prepared for South Station, USPS facility, and layover facility sites, including MCP-regulated conditions and recommendations for a future Phase II ESA.	DEIR Section 4.14 and Appendix 14 – *Site Contamination and Hazardous Materials Technical Report* address site contamination and hazardous materials.
C-01.82	MEPA	Discuss how MCP-regulated conditions may impact construction techniques or potential site infrastructure.	DEIR Section 4.14 and Section 6.6 and Appendix 14 – *Site Contamination and Hazardous Materials Technical Report* address MCP regulations.
C-01.83	MEPA	Identify State permits related to solid and hazardous waste mitigation at South Station and layover facility sites.	DEIR Section 4.14 and Appendix 14 – *Site Contamination and Hazardous Materials Technical Report* address compliance with permits.
C-01.84	MEPA	Consult with MassDEP's comments regarding regulatory requirements and potential mitigation measures during construction.	DEIR Section 6.4 describes the Construction Management Plan.
C-01.85	MEPA	Discuss MassDOT's construction/demolition-related recycling goals and compliance with the Massachusetts Solid Waste Master Plan goals.	DEIR Chapter 5 and Chapter 6 discuss recycling initiatives to be taken throughout the SSX project.
C-01.86	MEPA	Describe construction-period impacts and provide draft Construction Management Plan (CMP) to demonstrate mitigation of impacts, including permitting requirements.	DEIR Section 6.4 describes the Construction Management Plan.
C-01.87	MEPA	Develop staging and construction period access plan for rail, transit, bus and freight in collaboration with the City of Boston, Amtrak, MBTA and landowners.	DEIR Section 6 addresses various staging plans.
C-01.88	MEPA	Identify erosion and sedimentation control BUMPS in CMP, implemented and maintained in accordance with NPDES General Permit requirements and the project Stormwater Pollution Prevention Plan (SWPPP).	DEIR Section 4.5 and Appendix 7 - *Water Quality and Stormwater Technical Report* discuss the proposed consistency with the NPDES Construction General permit.
C-01.89	MEPA	Adhere to contractor requirements of MassDOT's GreenDOT Policy directive.	DEIR Section 5.2 discusses how the SSX project complies with GreenDOT.

Certificate Comment # (C-XX)	Name	Summary of Comment	Response
C-01.90	MEPA	Recommends use of recycled materials in pavement, per MassDOT's Construction Best Practices.	DEIR Chapter 5 and Chapter 6 discuss recycling initiatives to be taken throughout the SSX project.
C-01.91	MEPA	Include Draft Section 61 Findings and summary of mitigation measures.	DEIR Section 8.2 addresses Section 61 findings and Section 8.3 addresses mitigation measures.
C-01.92	MEPA	Provide self-certification regarding compliance with GHG emissions reduction measures.	Appendix 12 - *Greenhouse Gas Emissions Technical Report* addresses reduction measures.
C-01.93	MEPA	Include copy of Secretary's Certificate on ENF and copy of each comment letter with direct responses.	Included as DEIR Section 9.1.
C-01.94	MEPA	Circulate the DEIR to parties who commented on the ENF, State agencies from which permits are required, and in accordance with 301 CMR 11.16. Provide copies of DEIR to DOER and Boston Library branches.	DEIR Chapter 10 includes a circulation list.

Table 9-2—Public Officials/Agencies/Facilities

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-01	P-01.1	Representative Frank I. Smizik, Massachusetts 15th Norfolk District	Notes concerns about failure to include NSRL in plans. Supports SSX project, but must include NSRL.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the Commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.
	P-01.2		Notes that many public and private sector leaders support the NSRL.	

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-02	P-02.1	Representative Elaine C. O'Brien, Connecticut 61st Assembly District	Notes that Massachusetts supports Inland Route service to New York via Worcester, Springfield, Hartford and New Haven.	Comment acknowledged.
	P-02.2		Notes that Massachusetts' acquisition of trackage rights from CSX and relocation of CSX from Boston to Worcester will allow for development of multi-track service in western rail corridor.	Comment acknowledged.
	P-02.3		Expresses concern with proposal to place layover at Beacon Park Yard which could constrain development of multi-rail West Station and clog corridor.	MassDOT intends to utilize Beacon Park Yard as a preferred location to the west, to provide a more-balanced mix of layover sites west and south of South Station. MassDOT is continuing to evaluate the Widett and Readville Alternatives to provide a layover facility south of South Station. MassDOT is simultaneously performing environmental review of the I-90 Allston Interchange project, which is located in an area that includes the Beacon Park Yard rail site and I-90 (the Massachusetts Turnpike). The Interchange project is examining how to best realign the transportation assets in this area while also addressing significant structural needs; highway operational changes (the introduction of All-Electronic Tolling); the construction of a commuter rail station; and the introduction of significant off-road multimodal connections throughout the area. MassDOT has determined that it is appropriate to consider these potential transportation changes under a single environmental review process. Therefore, MassDOT plans to continue environmental review of the Beacon Park Yard site as a layover facility as part of the I-90 Allston Interchange project's environmental review. An ENF for that project is anticipated to be filed with the Secretary of EEA in late 2014 concurrent with this DEIR.
	P-02.4		Notes need for CSX Allston Rail Yard (Beacon Park Yard) to be replaced with a multitrack New West Station to provide service from the west to North Station and South Station.	
	P-02.5		Recommends location of layover facilities closer to South Station and not along the western corridor.	DEIR Section 3.6 addresses the layover alternatives analysis, which presents the assessment of layover sites reviewed.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-03	P-03.1	Massachusetts Division of Marine Fisheries	Notes that South Station and USPS facility are adjacent to Fort Point Channel, which contains habitat for winter flounder and refuge for migrating diadromous fish. Due to no work in the waterway, there are not resource concerns.	Comment acknowledged.
P-04	P-04.1	Massachusetts Department of Environmental Protection – NERO	Requires sewer extension/connection permit due to the proposed increase in wastewater flows of more than 50,000 gpd.	DEIR Section 1.8 addresses the permits required as part of this project.
	P-04.2		Requires infiltration/inflow mitigation for sewer connection permits for projects exceeding 15,000 gpd where a project exceeds any MEPA threshold for an EIR or if the project presents a significant risk.	Appendix 8 - *Water and Wastewater Technical Report* addresses infiltration/inflow mitigation.
	P-04.3		Requests meeting with MassDOT and City to develop I/I mitigation plan.	Meeting held with BWSC and MWRA on February 7, 2014. DEIR Section 4.6 and Appendix 8 - *Water and Wastewater Technical Report* address I/I.
	P-04.4		Notes that permitability of alternatives to be determined based on specific uses, layout, design, public benefits associated with proposal.	DEIR Chapter 3 includes the alternatives analysis and Chapter 7 includes the public benefits review.
	P-04.5		Notes that Build Alternatives 2 and 3 are likely to involve more complicated permitting issues, and that while a Chapter 91-compliant alternative (Alternative 2) may be possible, it is also possible that an amendment to Municipal Harbor Plan may be required should site constraints associated with infrastructure component preclude compliance with all regulatory requirements.	DEIR Section 4.3 describes the project alternatives compliance with Chapter 91 and identifies the need for Alternative 3 – Joint/Private Development Maximum Build to be approved in the context of an approved Municipal Harbor Plan.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-04	P-04.6	Massachusetts Department of Environmental Protection – NERO	Encourages consideration and commitment of renewable energy and energy efficiency measures in DEIR.	Appendix 12 - *Greenhouse Gas Emissions Technical Report* addresses renewable resources.
	P-04.7		Requires Greenhouse Gas (GHG) analysis, including modeling GHG emissions associated with water and wastewater treatment, due to projected water use of more than 300,000 gpd.	Appendix 12 - *Greenhouse Gas Emissions Technical Report* addresses the GHG analysis of water use.
	P-04.8		Requires GHG mesoscale analysis for air quality of future No Build, Build, and Build with Mitigation once Build Alternative is selected	Appendix 12 - *Greenhouse Gas Emissions Technical Report* addresses air quality.
	P-04.9		Requires evaluation of trip reduction and management and mitigation of project-related traffic, including roadway improvements, transportation demand management, progressive parking management.	DEIR Section 4.8 and Appendix 9 – *Traffic Analysis Technical Report* provide details on trip reduction and mitigation measures.
	P-04.10		Recommends a list of 12 air quality mitigation measures for consideration.	Appendix 12 - *Greenhouse Gas Emissions Technical Report* addresses air quality and mitigation measures.
	P-04.11		Recommends construction-period diesel emission mitigation.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* - Section 7 address diesel emission mitigation.
	P-04.12		Requires discussion of compliance with MA Idling Regulation.	DEIR Section 4.9 addresses idling policy.
	P-04.13		Encourages incorporation of construction & demolition (C&D) recycling.	DEIR Chapter 5 and Chapter 6 discuss recycling initiatives to be taken throughout the SSX project.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-04	P-04.14	Massachusetts Department of Environmental Protection – NERO	Requires compliance with Solid Waste and Air Pollution Control regulations.	DEIR Chapter 5 and Chapter 6 discuss recycling initiatives to be taken throughout the SSX project.
	P-04.15		Identifies disposal/handling regulations associated with asphalt, brick and concrete (ABC) processing.	DEIR Chapter 5 and Chapter 6 address waste management.
	P-04.16		Identifies air quality/emissions criteria associated with ABC processing.	DEIR Chapter 5 and Chapter 6 address waste management.
	P-04.17		Identifies regulations regarding asbestos and asbestos-containing waste material.	DEIR Chapter 6 addresses hazardous/impacted materials.
	P-04.18		Requires mitigation measures to alleviate dust, noise, and odor nuisance conditions during demolition.	DEIR Chapter 6 addresses construction mitigation.
	P-04.19		Requests commitment to source reduction and innovative recycling of waste stream.	DEIR Chapter 5 and Chapter 6 discuss recycling initiatives to be taken throughout the SSX project.
	P-04.20		Notes that integrating reduction, recycling, and recycled products at an early design stage enables effective waste diversion programs.	
	P-04.21		Identifies several organizations that provide information and technical assistance on incorporating recycling and source reduction into design.	
	P-04.22		Directs that treatment of contaminated soil and groundwater be conducted under the provisions of M.G.L. Chapter 21.	DEIR Section 4.3 addresses requirements related to M.G.L. Chapter 91.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-04	P-04.23	Massachusetts Department of Environmental Protection - NERO	Directs that building renovation/construction address potential indoor air impacts.	DEIR Section 6.3 addresses construction impacts/mitigation.
	P-04.24		Refers to Mass Contingency Plan requirements regarding construction activities at disposal sites.	DEIR Section 6.3 addresses construction impacts/mitigation.
	P-04.25		Specifies requirements for utility installations in contaminated areas.	DEIR Section 6.4 addresses construction management plan.
	P-04.26		Provides air quality requirements for boiler installation.	DEIR Section 4.10 assesses requirements associated with air quality permitting. Permit requirements will be finalized as design advances.
P-05	P-05.1	Massachusetts Office of Coastal Zone Management	Supports SSX project as it will enhance the Commonwealth's public transportation system, increase access to and along waterfront, and activate the last remaining privatized portion of Fort Point Channel (Dorchester Avenue).	Comment acknowledged.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-05	P-05.2	Massachusetts Office of Coastal Zone Management	Notes that the 2004 Secretary's Decision on Phase 2 of the Fort Point Downtown Waterfront Municipal Harbor Plan (MHP) anticipates an amendment to the MHP to provide for South Station track expansion and development at USPS site. The Secretary's guidance for master planning effort should address public access to waterfront open space along Fort Point Channel, pedestrian links to waterfront from inland open space areas, detailed network plan for Facilities of Public Accommodation, including Special Public Destination Facilities.	DEIR Section 4.3 describes the project's substantial net benefits to public waterfront access along Fort Point Channel.
	P-05.3		Requests that SSX project address current and project flood level increases and sea level rise over project life, evaluating at a minimum impacts of 2 feet of sea level rise.	DEIR Section 5.4 addresses the flood level increases associated with sea level rise.
	P-05.4		Notes that SSX may be subject to CZM federal consistency review and must be consistent with CZM's enforceable program policies.	DEIR Section 4.4 provides an analysis of the project's consistency with federal programs as administered through the CZM.
P-06	P-06.1	Massachusetts Historical Commission	Requires that any changes to the South Station Air Rights Project (EEA No. 3205/9131) be subject to consultation with MHC under terms of existing Memorandum of Agreement (MOA) for project.	Any changes to the South Station Air Rights Project will be reviewed in consultation with the MHC under the terms of the existing MOA for that project. There is no archaeological resources potential on the South Station site – see Appendix 13 - *Phase I Archaeological Reconnaissance Survey Technical Report*, also submitted by FRA to MHC on July 3, 2014.
	P-06.2		Anticipates receipt of FRA's identification of Area of Potential Effect (APE), historic resources, finding of effects.	On August 19, 2014 MassDOT received a letter from MHC concurring with the identification and evaluation findings presented in Appendix 13. Coordination with these entities will continue throughout the project.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-06	P-06.3	Massachusetts Historical Commission	Requests that DEIR identifies, evaluates and proposes finding of effects of proposed demolition of USPS facility; potential physical effects on South Station headhouse through vibration and construction methods; and visual, atmospheric and physical effects of new construction on historic properties.	DEIR Section 4.12 and Appendix 13 - *Historic Architectural Resources Technical Report* address project impacts. There is no archaeological resources potential identified at the South Station site including USPS facility demolition – see Appendix 13 - *Phase I Archaeological Reconnaissance Survey Technical Report*.
	P-06.4		Requests studies on potential effects of layover facility alternatives on nearby historic properties.	Potential Project impacts are described in Appendix 13 - *Historic Architectural Resources Technical Report* and in DEIR Section 4.12 There are no archaeological sites or resource potential identified for the layover facility alternatives – see Appendix 13 - *Phase I Archaeological Reconnaissance Survey Technical Report*.
	P-06.5		Expects that continued consultation will include reconnaissance level architectural resources survey of entire project site and architectural APE and Phase I Archaeological Reconnaissance Survey.	Existing Conditions are described in Appendix 13 – *Historic and Architectural Resources Technical Report* and in DEIR Section 4.12 See Appendix 13 - *Phase I Archaeological Reconnaissance Survey Technical Report,* also submitted by FRA to MHC on July 3, 2014.
P-07	P-07.1	Massachusetts Water Resources Authority	Requires MassDOT to identify and remove existing connections of stormwater flows to sanitary or combined sewers and redirect these stormwater flows to a storm drain system and Fort Point Channel discharge.	Appendix 8 - *Water and Wastewater Technical Report* addresses water and sewer capacity for each project element.
	P-07.2		Identifies three BWSC CSO outfalls crossing by or through the South Station area, and requires evaluation of any changes to the physical configuration, location, and/or hydraulic performance to determine how they may effect compliance with Federal Court mandates, regulatory requirements, water quality conditions in Fort Point Channel.	Appendix 8 - *Water and Wastewater Technical Report* addresses water and sewer capacity for each project element.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-07	P-07.3	Massachusetts Water Resources Authority	Requests that MassDOT coordinate with MWRA and BWSC early and often during planning and design to avoid impacts and maximize potential benefits for maintaining and enhancing levels of CSO control.	MassDOT has initiated on-going coordination with BWSC and MWRA. An initial meeting was held on 02/07/2014. Coordination will continue through final design.
	P-07.4		Requires MassDOT to offset any increase in wastewater flow with stormwater inflow reduction, I/I removal or sewer separation in hydraulically related sewer systems, including mitigation measures in compliance with MassDEP and BWSC policies, regulations, requirements.	DEIR Section 4.6. and Appendix 8 - *Water and Wastewater Technical Report* address inflow reduction and I/I removal or sewer separation.
	P-07.5		Prohibits discharge of groundwater to the MWRA sanitary sewer system.	Appendix 8 - *Water and Wastewater Technical Report* addresses water and sewer capacity for each project element.
	P-07.6		Requires USEPA-NPDES General Permit for Stormwater Discharges from construction activities.	DEIR Section 4.5 and Appendix 7 - *Water Quality and Stormwater Technical Report* address stormwater discharge permits.
	P-07.7		Requires MWRA Sewer Use Discharge Permit for discharge of wastewater from vehicle wash and/or maintenance operation to the sanitary sewer system.	DEIR Section 4.5 and Appendix 7 - *Water Quality and Stormwater Technical Report* address stormwater discharge permits.
	P-07.8		Requires MWRA approval and compliance with DEP regulations for installation of gas/oil separators.	DEIR Section 6.6 addresses MWRA.
	P-07.9		Requires Section 8(m) permit for construction/activities within or near MWRA easement, applicable to Beacon Park Yard.	MassDOT will coordinate with MWRA during subsequent design phases to obtain an 8(m) permit.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-08	P-08.1	Boston Public Works Department	Requests evaluation of impact of locating layover facility at BTD Tow Lot, with respect to existing Boston Public Works Department site and operations, including - proposed new construction.	Due to potential adverse impacts this alternative would present to critical city operations, the BTD Tow Lot as a potential layover facility site was dismissed from further evaluation. See DEIR Sections 1.6 and 3.6 for more discussion.
	P-08.2		Disagrees with ENF's assessment that partial taking of land will allow PWD to maintain operations.	
	P-08.3		Requests evaluation of takings issues, including PWD use of reduced area, construction of new facilities, or relocation of operations.	
P-09	P-09.1	Boston Redevelopment Authority, Boston Transportation Department, and Boston Energy and Environment Department (joint letter)	Notes the expansion of capacity at South Station is critical for improved mobility in eastern Massachusetts; project will have transformative impact on City and South Station area.	Comment acknowledged.
	P-09.2		Continue collaborative planning with USPS and MassDOT on relocation of USPS facility.	Negotiations with the USPS are ongoing.
	P-09.3		Design track to meet operating needs of MBTA/Amtrak and include infrastructure for future development over tracks and other site areas.	Comment acknowledged.
	P-09.4		Design public circulation areas that provide site connectivity and integrate Historic Headhouse and South Station Air Rights development project.	DEIR Section 3.4 identifies design goals for the terminal expansion, including site connectivity and integration of the historic headhouse. It is MassDOT's intent to create station designs that have minimal impact and reliance on the SSAR project.
	P-09.5		Incorporate City's Complete Streets principles.	DEIR Chapter 5 addresses the City of Boston's Complete Streets Guidelines.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-09	P-09.6	Boston Redevelopment Authority, Boston Transportation Department, and Boston Energy and Environment Department (joint letter)	Construction the new link in City's Harborwalk system along Fort Point Channel.	The development of Harborwalk is a key element of the SSX project and is primarily addressed in Sections 4.8, and 5.3.
	P-09.7		Allow for generous facilities for cyclists, including expanded bike share accommodations.	DEIR Section 4.8 and Appendix 9 – *Traffic Analysis Technical Report* provide an overview of the bicycle demands and a commitment to expand the South Station Hubway location and add a cycle track along Dorchester Avenue.
	P-09.8		Collaborate on the development of master plan for South Station- USPS area and amendment to Fort Point Downtown Waterfront MHP.	The BRA is in the early stages of preparing a master plan and amendment to the Fort Point Downtown Waterfront MHP.
	P-09.9		Focus on construction and operations design at South Station that account for sea level rise and storm surge.	DEIR Chapter 5 describes some of the considerations in facility design that are to be evaluated as the design progresses.
	P-09.10		Requests that DEIR include existing and projected daily diesel trips and existing and projected air toxin levels at South Station.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address air quality at South Station.
	P-09.11		Requests coordination with communities and Mayor's Office of Neighborhood Services regarding layover facility sites.	MassDOT will continue to coordinate with communities and Mayor's Office of Neighborhood Services regarding layover facility sites. See Appendix 1 - *Public Involvement and Agency Coordination Report* for more details on SSX public outreach.
	P-09.12		Requests that construction and operations design of layover facilities account for sea level rise and storm surge.	DEIR Chapter 5 describes some of the considerations in facility design that are to be evaluated as the design progresses.
	P-09.13		Requests that layover facility design/siting account for noise impacts and proposed mitigation.	Appendix 11 - *Noise and Vibration Technical Report* presents the results of the noise measurements obtained at the three proposed layover facility sites: Widett Circle, Beacon Park Yard, and Readville – Yard 2.
	P-09.14		Requests that DEIR include existing and projected daily diesel trips and existing and projected air toxin levels for each layover facility site.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address air quality at South Station.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-09	P-09.15	Boston Redevelopment Authority, Boston Transportation Department, and Boston Energy and Environment Department (joint letter)	Notes that as conceptually designed, siting of layover facility at BTD Tow Lot site would render existing building unusable, which would require relocation, and notes that City will continue to work with MassDOT.	Due to potential adverse impacts this alternative would present to critical city operations, the BTD Tow Lot as a potential layover facility site was dismissed from further evaluation. See DEIR Section 3.6 for more discussion.
	P-09.16		Requests that MassDOT conduct a needs assessment analysis with the City regarding siting of layover at BTD Tow Lot and relocation of PWD operations.	
P-10	P-10.1	Boston Water and Sewer Commission	Requests MassDOT's assistance in coordinating improvements to BOS 065 outfall pipe, which runs under the USPS South Postal Annex, with the USPS.	MassDOT has initiated on-going coordination with BWSC and MWRA. An initial meeting was held on 02/07/2014. Coordination will continue through final design and include BOS 065 outfall improvements.
	P-10.2		Requests protection of 4 CSOs located within project area during construction activities.	Chapter 6 presents the construction management plan, including protection of existing utilities. DEIR Sections 4.5 and 4.6 present additional discussion of the CSOs.
	P-10.3		Requests MassDOT to identify connections to BWSC-owned storm drains.	DEIR Section 4.5 and Appendix 7 - *Water Quality and Stormwater Technical Report* outline the existing and proposed drainage systems for project elements.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-10	P-10.4	Boston Water and Sewer Commission	Requests that the DEIR include the South Station Air Rights development project into the redevelopment of the South Station site.	Prior to the expansion of South Station, it is anticipated that the site will include the planned South Station Air Rights (SSAR) project, consisting of approximately 1.8 million sf of mixed-use development to be located directly above the railroad tracks at the existing South Station headhouse. The SSAR project will also include expansion of the existing bus terminal towards the existing headhouse. The SSAR project as approved by the Secretary of EEA in 2006; however it has not yet begun construction. Nonetheless, for environmental review of the SSX project, the SSAR project is assumed to be built for the future year analysis, and is part of the SSX project's No Build Alternative. Coordination of the design elements of the SSAR project and the SSX project will be required in the next phase of project development. Consideration of the interrelationship of the two project's design elements, such as platform lengths, column placement and passenger access, will be carefully reviewed to ensure consistency in planning and design.
	P-10.5		Requires MassDOT to develop an inflow reduction plan, consistent with DEP/MWRA policy, using a minimum 4:1 ratio for I/I removal to new wastewater flow added.	DEIR Section 4.6 and Appendix 8 - *Water and Wastewater Technical Report* address inflow reduction and I/I removal or sewer separation.
	P-10.6		Requires MassDOT to investigate use of Green Infrastructure (GI) related to stormwater, and submit runoff reduction estimates from GI with site plans.	DEIR Section 4.6 provides a discussion of potential stormwater BMPs for each site including GI. GI refers to a decentralized network of site-specific stormwater management techniques that are implemented to reduce the volume of stormwater runoff entering the storm drain system while also mimicking the natural hydrologic cycle.
	P-10.7		Requires DEIR to contain estimates of water demand, wastewater generation and stormwater discharge control plan.	DEIR Sections 4.5 and 4.6 and Appendix 7 - *Water Quality and Stormwater Technical Report* and Appendix 8 - *Water and Wastewater Technical Report* address water demand estimates and control plans.
	P-10.8		Requires submission of Termination Verification Approval Form prior to issuance of building demolition permit.	Necessary permits are identified in DEIR Section 1.8.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-10	P-10.9	Boston Water and Sewer Commission	Requires design and construction of water, sewers and storm drains in conformance with BWSC design standards and regulations, including submission of plans at 50% design level.	DEIR Sections 4.5 and 4.6 and Appendix 7 - *Water Quality and Stormwater Technical Report* and Appendix 8 - *Water and Wastewater Technical Report* address design and construction of drains.
	P-10.10		Supports MassDEP's 4:1 requirement for I/I removal to new wastewater flow added, which is based on estimated sewage generation provided on project site plan.	DEIR Section 4.6 and Appendix 8 - *Water and Wastewater Technical Report* address inflow reduction and I/I removal or sewer separation.
	P-10.11		Requires compliance with City of Boston's Complete Street Initiatives, including incorporation of Green Infrastructure into street designs.	DEIR Section 5.3 addresses the City of Boston's Complete Streets Guidelines.
	P-10.12		Requires MassDOT to provide estimates of peak and maximum water demand based of full site build-out, including methodology.	DEIR Sections 4.5 and 4.6 and Appendix 7 - *Water Quality and Stormwater Technical Report* and Appendix 8 - *Water and Wastewater Technical Report* address water demand and wastewater.
	P-10.13		Requires permit for Abrasive Blasting or Chemical Cleaning for any masonry repair and cleaning, including plans for containment/treatment of wash water.	Construction requirements addressed in DEIR Chapter 6.
	P-10.14		Requires application for coverage under USEPA's Remediation General Permit for contaminated groundwater, including dewatering discharge contaminated with petroleum products.	Necessary permits are identified in DEIR Section 1.8.
	P-10.15		Prohibits construction of buildings over BWSC water lines, and requires review of construction over BWSC sewer facilities. Requires design of project so that access to BWSC's water and sewer lines is not inhibited.	MassDOT has initiated on-going coordination with BWSC and MWRA. An initial meeting was held on February 7, 2014. Coordination will continue through final design to ensure appropriate alignment of infrastructure.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-10	P-10.16	Boston Water and Sewer Commission	Requires that MassDOT take precautions, including inspections, to prevent construction-related damage/disruption to water and sewer lines on or adjacent to project site.	Comment acknowledged. DEIR Section 4.6 discusses proposed mitigation.
	P-10.17		Requires detailed capacity analysis of water, sewer, and storm drain systems serving site, including impact analysis of project upon existing systems.	DEIR Section 4.6 discusses the water and sewer capacity for each project element. MassDOT has coordinated with BWSC and MWRA on utility connections and will continue coordination through final design.
	P-10.18		Requests use of water conservation measures, in addition to those required by State Plumbing Code.	Water conservation measures addressed in DEIR Section 4.6 and Section 5.1.
	P-10.19		Requires Hydrant Permit for hydrant use during project construction.	Construction requirements addressed in DEIR Chapter 6; necessary permits are identified in DEIR Section 1.8.
	P-10.20		Requires control devices on water service, including cross connections for water service provided to proposed docks in the marina, and backflow prevention devices for fire protection, vehicle wash, mechanical and irrigation systems.	DEIR Section 4.6 and Appendix 8 - *Water and Wastewater Technical Report* address control measures.
	P-10.21		Requires Meter Transmitter Unit for new water meters.	Necessary permits are identified in DEIR Section 1.8.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-10	P-10.22	Boston Water and Sewer Commission	Requires submission of Stormwater Pollution Prevention Plan with Site Plan and General Service Application prior to issuance of building demolition permit, including provision of stormwater management plan.	DEIR Section 4.5 discusses the proposed consistency with the NPDES Construction General permit. Additional details are provided in Appendix 7 - *Water Quality and Stormwater Technical Report.*
	P-10.23		Requires NPDES General Permit for Construction for projects disturbing one or more acres of land, prior to construction start.	Permits identified in DEIR Section 1.8.
	P-10.24		Recommends methods for protecting stormwater quality on site.	DEIR Section 4.5 discusses protecting stormwater quality on site. Additional details are provided in Appendix 7 - *Water Quality and Stormwater Technical Report.*
	P-10.25		Requires Drainage Discharge Permit for discharge of dewatering drainage to storm drainage system, and prohibits discharge of dewatering drainage to a sanitary sewer.	DEIR Section 4.5 discusses the potential impacts for each project element, including construction time impacts and dewatering practices. Additional details are provided in Appendix 7 - *Water Quality and Stormwater Technical Report.*
	P-10.26		Requires MassDOT to investigate methods for retaining stormwater on-site, and prohibits discharge of stormwater to sanitary sewer.	
	P-10.27		Requires discharge of wastewater from pump-out stations to sanitary sewer (applicable for construction of new slips).	Wastewater addressed in DEIR Chapter 4, Section 4.6 and Appendix 8 - *Water and Wastewater Technical Report*
	P-10.28		Requires separation of sanitary sewage and stormwater and provision of storm drain service connections.	Stormwater addressed in Appendix 7 - *Water Quality and Stormwater Technical Report and* Wastewater addressed in Appendix 8 - *Water and Wastewater Technical Report.*
	P-10.29		Requests that new and modified catch basins include a permanent casting: "Don't Dump: Drains to Boston Harbor."	Comment acknowledged.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-10	P-10.30	Boston Water and Sewer Commission	Requires installation of grease traps for food service facility.	Wastewater addressed in Appendix 8 - *Water and Wastewater Technical Report.*
	P-10.31		Requires installation of oil separators in parking garage floors.	Stormwater addressed in Appendix 7 - *Water Quality and Stormwater Technical Report.*
	P-10.32		Requires oil trap for bus washing facility rinse wash.	Stormwater addressed in Appendix 7 - *Water Quality and Stormwater Technical Report.*
	P-10.33		Requires installation of particle separators for new parking lots.	Stormwater addressed in Appendix 7 - *Water Quality and Stormwater Technical Report.*
	P-10.34		Requires dye-testing of existing stormwater/sanitary sewer connections.	DEIR Section 4.6 discusses the water and sewer potential connections and the need for dye-testing to confirm utility location/connections.
P-11	P-11.1	City of Cambridge	Cites current and proposed use of public transit, especially the MBTA Red Line, as critical to City of Cambridge.	DEIR Section 4.7 and Appendix 9 – *Transit Capacity Technical Report* summarize the analysis of potential SSX project-related effects on MBTA Red Line ridership and capacity.
	P-11.2		Cites importance of transit system to region's economy and to reduction in GHG emissions.	Transit is addressed in DEIR Section 4.7. and Section 4.7. GHG analysis addressed in DEIR Section 4.11. Economic impacts are addressed in Section 4.14 and Appendix 4 - *Socioeconomic Conditions Technical Report*
	P-11.3		Notes that South Station is currently at maximum capacity.	DEIR Chapter 2 addresses current South Station capacity.

Letter # (P-XX)	#	Name	Summary of Comments	Response
P-11	P-11.4	City of Cambridge	Notes that expansion of South Station will allow for increased frequency and reduced delays on existing route and opportunities for new service destinations.	DEIR Chapter 2 addresses current South Station capacity.
	P-11.5		Requests that the SSX project consider the potential for future transportation uses of underground real-estate in the area as the expansion and associated air-rights projects move forward.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.
	P-11.6		Expresses interest in further discussions, particularly with regard to Beacon Park Yard.	MassDOT intends to utilize Beacon Park Yard as a preferred location to the west, to provide a more-balanced mix of layover sites west and south of South Station. MassDOT is continuing to evaluate the Widett and Readville Alternatives to provide a layover facility south of South Station. MassDOT is simultaneously performing environmental review of the I-90 Allston Interchange project, which is located in an area that includes the Beacon Park Yard rail site and I-90 (the Massachusetts Turnpike). The Interchange project is examining how to best realign the transportation assets in this area while also addressing significant structural needs; highway operational changes (the introduction of All-Electronic Tolling); the construction of a commuter rail station; and the introduction of significant off-road multimodal connections throughout the area. MassDOT has determined that it is appropriate to consider these potential transportation changes under a single environmental review process. Therefore, MassDOT plans to continue environmental review of the Beacon Park Yard site as a layover facility as part of the I-90 Allston Interchange project's environmental review. An ENF for that project is anticipated to be filed with the Secretary of EEA in late 2014 concurrent with this DEIR.
	P-11.7		Notes that SSX project is first step to bringing transit system in Boston to world-class standard, but notes the importance of other needed expansion projects (e.g., Urban Ring circumferential transit project).	Comment acknowledged.

Table 9-3—Non-Governmental Organizations/Businesses/Individuals

Letter #	#	Name	Comment Summary	Response
N-01	N-01.1	495/Metro West Partnership	Notes that expansion of South Station is critical to realizing goal of 495/Metro West Partnership regarding commuter rail service to and from region, specifically Franklin Line and Worcester/Framingham Line.	Comment acknowledged.
	N-01.2		Notes that capacity constraints at South Station are a concern, especially in light of expanded service schedule planned for the Worcester/Framingham Line, following negotiations between Patrick administration, MassDOT, MBTA, CSX. Improving the capacity, reliability, and layover space at South Station is vital to growing demand for commuter rail service in the 495/MetroWest region.	
	N-01.3		Fully supports SSX project.	
N-02	N-02.1	A Better City	Supports South Station expansion and enhanced layover capacity.	
	N-02.2		Cites importance of a thorough review of options for layover facilities and impacts of their surroundings in South Bay, Readville, and Beacon Park.	Comment acknowledged. DEIR Section 1.6 summarizes project impacts for the Beacon Park Yard, Widett Circle, and Readville- Yard 2 layover facility sites and DEIR Section 3.6 provides further evaluation.
	N-02.3		Welcomes the opportunity for continued participation during environmental review, planning and design as the scope is refined and as review continues.	Comment acknowledged. MassDOT will continue to provide information and opportunities for public participation as the project advances.
N-03	N-03.1	Association for Public Transportation	Presents a number of questions regarding sustainability of SSX project as strategic transportation infrastructure.	DEIR Chapter 5 discusses sustainability initiatives.

Letter #	#	Name	Comment Summary	Response
N-03	N-03.2	Association for Public Transportation	Indicates that review of SSX project with respect to strategic transportation infrastructure sustainability shows that the project is deficient. Because South Station is a stub-end terminal without ability to expand service to the north, the SSX project would increase operational inefficiencies in the MBTA commuter rail network and Amtrak intercity rail which are forced to run bifurcated systems out of North and South Stations.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the Commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.

Letter #	#	Name	Comment Summary	Response
N-03	N-03.3	Association for Public Transportation	Notes that the most successful stations around the world have tracks and platforms below grade, with retail (shops, restaurants, other services) on ground floor, with benefits for Value Capture Financing.	MassDOT will be considering opportunities to incorporate retail throughout the design process. At this point in the design process, there are spaces being considered under all alternatives to support passenger amenities typical of a modern transportation hub.
	N-03.4		Proposes consideration of NSRL which, via underground tunnels and station platforms, can connect North and South Boston terminals and the region.	See response to N-03.2
	N-03.5		Notes need to consider capacity situation of Greater Boston MBTA subway, with key stations, including Park Street, Downtown Crossing, Government Center, State Street, at or near capacity; NSRL would alleviate this problem.	DEIR Section 4.7 summarizes the analysis of potential SSX project-related impacts to MBTA public transportation vehicle loading and to station capacity at South Station, Park Street, Downtown Crossing, Government Center, and State Street. Additional analysis details are provided in Appendix 9 – *Transit Capacity Technical Report.*
	N-03.6		Indicates that regarding environmental issues, SSX project is lacking versus the NSRL, noting that no other transportation project in the Commonwealth has such a high environmental benefit as the NSRL.	See response to N-03.2
	N-03.7		Requests that MEPA determine that the SSX project is inconclusive and incomplete because it does not review the substantial benefits of the North-South Rail Link (NSRL) and direct MassDOT to complete the preliminary engineering of the NSRL.	
	N-03.8		Notes possibility that the SSX project will obstruct the proposed right-of-way for the NSRL, which violates the (Secretary's Certificate on the) NSRL MIS/DEIR.	

Letter #	#	Name	Comment Summary	Response
N-04	N-04.1	Downtown North Association	Notes that there is no reference or substantive attention paid to the implications of the SSX project for the NSRL, or vice versa.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection
	N-04.2		Notes that because the NSRL DEIR is pending, any proposed project involving South Station is required to address impacts upon previous MEPA projects.	
	N-04.3		Notes that because the SSX project focuses upon the more immediate issues (such as track and terminal capacity problems), the SSX project overlooks future transportation development opportunities and advantages of the NSRL.	
	N-04.4		Notes that the acute present needs at South Station are due to the fact that chronic needs identified in the NSRL DEIR were not addressed, and an increase in surface tracks at South Station may be essential strategy for today, but will not be sufficient strategy in the larger context/future.	
	N-04.5		Notes concern with moving ahead with SSX project without fully considering the NSRL project, including project unknowns, such as cost of NSRL, and project facts, such as benefits of extending the NEC to northern New England and location of preferred NSRL alignment through the USPS parcel.	
	N-04.6		Requests that the SSX project incorporate the update and completion of the NSRL DEIR.	

Letter #	#	Name	Comment Summary	Response
N-04				alternatives remains a goal of the South Station Expansion project.
	N-04.7	Downtown North Association	Requests that at the least, the planning and development of the SSX project account for the NSRL: specifically, the future development of the USPS South Postal Annex parcel and the preservation of the underground right-of-way for the NSRL.	
	N-04.8		Notes that precluding the NSRL would not be an acceptable outcome of the SSX project, as the SSX project cannot integrate the regional rail system, extend the NEC beyond South Station, and address capacity problems at North Station, as the NSRL project would.	

Letter #	#	Name	Comment Summary	Response
N-05	N-05.1	Harvard University	Requests that MassDOT review the underlying assumptions for including Beacon Park Yard as layover alternative, particularly with respect to other competing transportation needs.	MassDOT intends to utilize Beacon Park Yard as a preferred location to the west, to provide a more-balanced mix of layover sites west and south of South Station. MassDOT is continuing to evaluate the Widett and Readville Alternatives to provide a layover facility south of South Station. MassDOT is simultaneously performing environmental review of the I-90 Allston Interchange project, which is located in an area that includes the Beacon Park Yard rail site and I-90 (the Massachusetts Turnpike). The Interchange project is examining how to best realign the transportation assets in this area while also addressing significant structural needs; highway operational changes (the introduction of All-Electronic Tolling); the construction of a commuter rail station; and the introduction of significant off-road multimodal connections throughout the area. MassDOT has determined that it is appropriate to consider these potential transportation changes under a single environmental review process. Therefore, MassDOT plans to continue environmental review of the Beacon Park Yard site as a layover facility as part of the I-90 Allston Interchange project's environmental review. An ENF for that project is anticipated to be filed with the Secretary of EEA in late 2014 concurrent with this DEIR.
	N-05.2		Requests more rigorous analysis of operational growth and service needs as basis for determining layover facilities needs, and more rigorous analysis of relative merits of the layover sites, including those eliminated from further consideration.	DEIR Section 3.6 describes the layover facility site alternatives analysis, including those eliminated for further consideration.
	N-05.3		Notes that significant factors applying to Beacon Park Yard were not considered in the ENF.	See response to N-05.1
	N-05.4		Recommends South Station Expansion project and layover project be analyzed separately, as the two projects are not interdependent.	DEIR Chapter 2 addresses the Purpose and Need of the South Station Expansion project, including associated layover facilities.
	N-05.5		Notes that the advantage of DMUs is less reliant upon layover movements.	Comment acknowledged.

Letter #	#	Name	Comment Summary	Response
N-05	N-05.6	Harvard University	Notes that the layover needs analysis does not include the use of DMUs in either 2025 or 2040.	MassDOT and the MBTA are currently developing a pilot program for DMU service on the MBTA system, outside of the South Station Expansion project. As MassDOT moves forward on plans for the SSX project, tracks, signals, layover facilities and other infrastructure will be designed so that DMUs can be accommodated in the future.
	N-05.7		Notes that MassDOT's requirement to accommodate all 8-car consists precludes potential use of Amtrak's Southampton Street Yard and Front Yard.	As stated in the Layover Facilities Alternatives Analysis, the future use of eight-car trainsets by the MBTA would reduce MBTA's capacity at Southampton Street Yard from six trainsets to three trainsets by 2040. Additionally, the track lengths at Amtrak's Front Yard would not be able to accommodate the expanded MBTA eight-car trainsets.
	N-05.8		Requests that MassDOT provide information about passenger growth increases between 1990 and 2010 and relate them to growth rates used for MBTA's estimate of layover capacity needed for 2040. Notes that layover needs analysis does not refer to existing or proposed future service plans of the MBTA, and does not address operational efficiencies that can be achieved by site layover facilities in proximity to planned expansions of commuter rail services.	Chapter 2 provides information on rail service increases and corresponding layover capacity limits. DEIR Section 3.6 presents the layover facility site alternatives analysis, including requirements for layover facility locations.
	N-05.9		Notes that the Governor, MassDOT and MBTA have indicated intent to study future use of DMUs, but the ENF does not refer to analysis of how the MBTA's future use of DMUs would decrease future layover needs.	See response to N-05.6
	N-05.10		Requests that use of Beacon Park Yard as a layover facility be evaluated against competing MassDOT transportation priorities such as the following (a-d):	See response to N-05.1

Letter #	#	Name	Comment Summary	Response
N-05	N-05.10a	Harvard University	Reconstruction/replacement of the MassPike Allston viaduct and interchange, including use of the Yard as a construction staging area	See response to N-05.1
	N-05.10b		Straightening segments of the MassPike for electronic tolling, including use of the Yard;	
	N-05.10c		Street system improvements needed in and around Beacon Park Yard;	
	N-05.10d		Replacement of the single track-constrained Boston Main Line with a multi-track to expand commuter rail service, introduce DMU service, and introduce inter-city Amtrak service on the inland route.	See response to N-05.6
	N-05.11		Notes that the ENF does not accurately describe existing MBTA and MassDOT easement rights in Beacon Park Yard; the actual area of MBTA and MassDOT future easement areas, and potential property acquisition costs associated with creating a layover facility at Beacon Park Yard.	See response to N-05.1
	N-05.12		Notes that ENF does not discuss how proposed layover at Beacon Park Yard would operate in tandem with on-going CSXT rights and operations.	See response to N-05.1
	N-05.13		Notes that ENF does not reference reserved rights of Harvard to undertake development both above and below future MBTA and MassDOT easement areas.	See response to N-05.1

Letter #	#	Name	Comment Summary	Response
N-05	N-05.14	Harvard University	Notes that construction of layover facility at Beacon Park Yard would not be consistent with surrounding land uses and would conflict with State plans for Yard as gateway district for the city.	See response to N-05.1
	N-05.15		Requests that DEIR address potential delays to Amtrak services and conflicts with inland inter-city route that could be caused by layover operations.	Each proposed layover facility site was evaluated for its impact to Amtrak and MBTA revenue and non-revenue movements.
	N-05.16		Notes that ENF does not discuss infrastructure requirements associated with use of Beacon Park Yard as layover facility.	Infrastructure requirements for the layover facility sites are presented in DEIR Sections 4.5, 4.6, and 4.7.
	N-05.17		Notes that ancillary facilities required for layover facility would require additional property acquisition and would not be feasible, given competing transportation priorities.	The development of layover facilities and any required property acquisitions would be limited to the minimum footprints required to support each function, including access roads, stormwater management facilities, and employee parking areas where required.
	N-05.18		Notes that layover facility at Beacon Park Yard would conflict with City plans for the area, current zoning, and performance standards.	DEIR Section 4.1 discusses existing zoning and consistency of layover facility siting with zoning requirements.
	N-05.19		Notes that construction of layover would conflict with creation of West Station passenger rail service at Beacon Park Yard	See response to N-05.1
	N-05.20		Requests air quality analysis of proposed layover at Beacon Park Yard.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address the air quality of Beacon Park Yard.

Letter #	#	Name	Comment Summary	Response
N-05	N-05.21	Harvard University	Notes that, as with a number of other sites eliminated in the Phase I screening analysis, the ENF does not clarify the acquisition costs associated with the use of Beacon Park Yard as a layover facility.	Acquisition costs were not a selected screening criterion in this initial screening evaluation. See DEIR Section 3.6 for more discussion on the layover alternatives analysis.
N-06	N-06.1	Massachusetts Bus Association	Notes that the ENF did not address the South Station Bus Terminal (SSBT), including the full build-out of gate space and connections to the rail terminal. Requests that the DEIR address full build-out of the SSBT bus gate space (as originally designed), and weather-protected pedestrian connections to the rail terminal.	The full build-out of the SSBT is discussed in the environmental document for the separate, previously permitted South Station Air Rights (SSAR) Project (EEA No. 3205/9131)
	N-06.2		Requests detail on proposed impacts to SSBT ramps.	DEIR Section 4.8 provides details on each alternative and the function of the service road.
	N-06.3		Notes that the ENF does not address significant intermodal role of buses.	DEIR Sections 4.7, 4.8, and Appendix 9 – *Transit Capacity Technical Report* provide an overview of the public transportation services at South Station.
N-07	N-07.1	James RePass	Requests that Alternatives Analysis include evaluation of new tracks at both underground and surface-levels.	Appendix 2 - *Track Configuration Alternatives Analysis - Tier 1 Screening* details the alternatives that were analyzed including underground and surface level options.
N-08	N-08.1	Sierra Club	Acknowledges that some aspects of the SSX project have merit, notably reopening Dorchester Avenue to the public and rebuilding of streetscape/extension of Harborwalk.	Comment acknowledged.

Letter #	#	Name	Comment Summary	Response
N-08	N-08.2	Sierra Club	Notes that the project is fundamentally flawed by basic design assumption to remain as a stub-end terminal.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.
	N-08.3		Notes that SSX project is temporary solution and requests that MassDOT revisit NSRL, including putting the new South Station platforms underground.	

Letter #	#	Name	Comment Summary	Response
N-08	N-08.4	Sierra Club	Notes that the BTD Tow Lot is the only proposed layover location close to downtown; other locations would further air pollution via deadheading trains.	As discussed in DEIR Section 3.6, since the March 2013 ENF, the BTD Tow Lot site has been dismissed from further evaluation due to the considerable impacts this site would have on critical City operations. DEIR Section 4.9 and Appendix 10 – *Air Quality Technical Report* discuss the potential air quality impacts of the layover facilities.
	N-08.5		Requests that MBTA reconsider decision to electrify commuter rail lines as a means to reduce air pollution.	Due to the benefits that an electrified rail network could offer, MassDOT holds the position that any new construction and expansion of the commuter rail system should not preclude the possibility of electrification in the future. As part of the plans for the South Station Expansion project, clearance and right-of-way designs will be carried out so that they will be able to accommodate electrification in the future. With the current financial and logistical limitations, however, MassDOT is not currently planning any system-wide electrification processes now or in the foreseeable future.
	N-08.6		Notes that SSX project fails to provide benefits to travelers coming from the North and riders on the MBTA's central subway system, especially the Orange Line.	Comment acknowledged
N-09	N-09.1	Seaport Transportation Management Association	Requests that the DEIR include projected MBTA Silver Line ridership.	DEIR Sections 4.7, 4.8, and Appendix 9 – *Ridership Forecasting Technical Report* include projected MBTA Silver Line ridership at South Station for the 2025 and 2035.
	N-09.2		Requests that DEIR transportation analysis consider private shuttle services as a connection to and from South Station and incorporate a designated shuttle stop within the South Station area.	DEIR Sections 4.7 and 4.8 discuss accommodation for private shuttles to stop on the Dorchester Avenue curbside in front of the station.
	N-09.3		Supports proposed improvements to Dorchester Avenue, especially for pedestrians and bicyclists.	Appendix 9 – *Traffic Analysis Technical Report* includes a multimodal assessment, prioritizing mobility for pedestrians and bicyclists. The reopened Dorchester Avenue includes substantial accommodations for pedestrians and bicyclists, including a cycle track and new Harborwalk connection along Fort Point Channel.

Letter #	#	Name	Comment Summary	Response
N-09	N-09.4	Seaport Transportation Management Association	Requests that the DEIR incorporate projected vehicular and pedestrian traffic counts at the intersections of Dorchester Avenue and Summer Street, Dorchester Avenue and West Second Street, Dorchester Avenue at West Broadway, and near the P&G Gillette parking lot adjacent to Dorchester Avenue.	Appendix 9 – *Traffic Analysis Technical Report* includes these locations where traffic counts were conducted.
	N-09.5		Requests that the DEIR cite the means/responsibility for Harborwalk maintenance, including the long-term maintenance funding source.	MassDOT has coordinated with BRA and BTD on the Harborwalk design and will continue coordination through final design, including the consideration of long-term maintenance.
	N-09.6		Notes that the DEIR will include detailed transportation demand management measures and transportation analysis.	Appendix 9 – *Traffic Analysis Technical Report* includes transportation demand management mitigation.
N-10	N-10.1	The Boston Harbor Association	Supports SSX project as integral element of Commonwealth's enhanced mass transportation system.	Comment acknowledged.
	N-10.2		Requests that the "No Build" Alternative analysis include an analysis of transportation improvements that could be implemented without relocation of the USPS facility.	DEIR Section 3.3 discusses the No Build Alternative; it is anticipated that transportation improvements would be limited to state of good repair requirements.
	N-10.3		Requests discussion of consistency of SSX project with the Fort Point Channel Watersheet Activation Plan, including timetable for implementing the Plan.	DEIR Section 4.1 provides a description of the project's relationship to the Fort Point Channel Watersheet Activation Plan.
	N-10.4		Notes that ENF appears confusing regarding existence of landlocked tidelands and requests clarification regarding landlocked tidelands at South Station in current conditions.	DEIR Section 4.3 clarifies the jurisdiction of filled tidelands at the South Station site and each studied layover facility alternative.

Letter #	#	Name	Comment Summary	Response
N-10	N-10.5	The Boston Harbor Association	Requests discussion of how an interim Harborwalk segment could be implemented within 60 days of transfer of USPS property to MassDOT.	While MassDOT is considering early action to provide limited pedestrian access along the currently-closed section of Dorchester Avenue south of Summer Street, it is anticipated that it would be necessary to utilize a portion of this roadway would be used for construction access and activities during demolition of the USPS facility and construction of the new headhouse and rail infrastructure.
	N-10.6		Requests that analysis for each alternative include water transit options at or by South Station and expanded bicycling facilities.	DEIR Chapter 3 and Section 4.7 address transportation options.
	N-10.7		Requests further analysis of ways to reduce single passenger vehicle use at South Station, including reduced parking spaces/dedicated spaces for shared-car usage.	DEIR Chapter 3 discusses the reduced parking associated with each alternative.
	N-10.8		Requests assessment of each alternative with respect to climate change and means to increase resilience to coastal flooding.	DEIR Sections 5.4. and 5.5. describe specific design elements to address resilience to coastal flooding.
N-11	N-11.1	WalkBoston	Notes that the SSX project is most extensive regarding expanding ground-level transportation uses of the terminal, and cites walking connections that require the highest level of focus.	DEIR Section 3.5 includes design goals for terminal expansion.
	N-11.2		Notes that changes to the site over the past decade and future development may constrain the ability of South Station to handle pedestrian traffic, including the following (a-d):	The SSX project includes pedestrian flow modeling of existing conditions and SSX project alternatives. DEIR Section 4.8 addresses pedestrian traffic. DEIR Section 3.5 presents the design goals for the terminal expansion, including pedestrian intermodal connections.
	N-11.2a		Construction of office building at corner of Summer Street and Dorchester Avenue;	
	N-11.2b		Proposed construction of office tower directly above the site;	
	N-11.2c		Possible future public/private development above tracks on USPS site;	

Letter #	#	Name	Comment Summary	Response
N-11	N-11.2d	WalkBoston	Current indirect connections between existing bus terminal and South Station concourse.	The SSX project includes pedestrian flow modeling of existing conditions and SSX project alternatives. DEIR Section 4.8 addresses pedestrian traffic. DEIR Section 3.5 presents the design goals for the terminal expansion, including pedestrian intermodal connections.
	N-11.3		Requests evaluation of connections between concourse/terminal facilities and external destinations, including (a-c):	
	N-11.3a		MBTA Red and Silver Line platforms;	
	N-11.3b		Summer Street sidewalks;	
	N-11.3c		Dorchester Avenue; Atlantic Avenue.	
	N-11.4		Requests the consideration of options to accommodate future pedestrian traffic (a-d):	
	N-114a		Wide passageway connections between ends of new track and existing concourse;	
	N-11.4b		Expansion of waiting area in concourse;	
	N-11.4c		Pursuit of new floor level for pedestrian activities;	
	N-11.4d		Provision of pedestrian passages beneath current floor level of concourse to and from MBTA station.	
	N-11.5		Supports reopening of Dorchester Avenue and extension of Harborwalk.	Comment acknowledged.
	N-11.6		Requests existing pedestrian counts into and through the Station and projections of pedestrian traffic in all parts of proposed terminal.	Appendix 9 – *Pedestrian Analysis Technical Report* provides detailed information on intermodal transfers.
N-12	N-12.1	Brad Bellows	Notes that approval of the SSX project should not be granted without verifying the economic analysis for the NSRL.	Comment acknowledged.
	N-12.1a		Notes that SSX project will address an immediate capacity issue, but questions need if the rail service were property integrated.	

Letter #	#	Name	Comment Summary	Response
N-12	N-12.1b	Brad Bellows	Notes that expanding South Station will restore what has eroded but will not provide system that is needed.	Comment acknowledged.
	N-12.1c		Notes need for proper cost/benefit analysis of the NSRL project, verified against global best practices.	

Letter #	#	Name	Comment Summary	Response
N-13	N-13.1	Ellen Altman	Notes that SSX project needs to be linked to NSRL project.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.

Letter #	#	Name	Comment Summary	Response
	N-13.2		Requests consideration of climate change and rise of sea level as it impacts rail lines.	DEIR Chapter 5 describes some of the considerations in facility design that are to be evaluated as the design progresses.
	N-13.3		Notes opportunity for more creative planned/program uses at water's edge, Harborwalk development than what is currently depicted in plans.	Comment acknowledged.

Letter #	#	Name	Comment Summary	Response
N-14	N-14.1	John A. Businger (with attachments)	Does not support the SSX project; it is a temporary solution and does not solve the Northeast Corridor capacity problem. (Attachments in support of the NSRL include an October 2006 Report, "An Integrated Regional Rail Network for New England," and letters from U.S. Congress, Senate, MA General Court.)	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.

Letter #	#	Name	Comment Summary	Response
N-15	N-15.1	Nathaniel Curtis	Supports South Station as a means to allow for commuter rail extension and improve reliability.	Comment acknowledged
	N-15.2		Notes that expanded South Station will accommodate South Coast Rail, extension of commuter rail to Springfield, Amtrak's plans for Northeast Corridor, and meet transportation challenges of 21st century.	Comment acknowledged
	N-15.3		Supports eventual full electrification of Boston's commuter rail network, facilitated through expanded South Station	Due to the benefits that an electrified rail network could offer, MassDOT holds the position that any new construction and expansion of the commuter rail system should not preclude the possibility of electrification in the future. As part of the plans for the South Station Expansion project, clearance and right-of-way designs will be carried out so that they will be able to accommodate conversion to electrification in the future. With the current financial and logistical limitations, however, MassDOT is not currently planning any system-wide electrification processes now or in the foreseeable future.
N-16	N-16.1	Frank DeMasi	Notes importance of Massport's reapplication for TIGER grant for extending Track 61, including importance of involvement of Boston Terminal Company as a supporter of rail.	The SSX project does not include any upgrades for freight traffic, and it does not preclude Track 61 from being used for freight service to Port of Boston in the future.
	N-16.2		Recommends use of Widett Circle for the layover facility and relocation of existing businesses to Boston Marine Industrial Park, including construction of rail extension.	Comment acknowledged.
	N-16.3		Requests that SSX project include reconfiguration of the Bay Junction track alignment and interlocking, and provision of direct access to Track 61.	See response to N-16.1
N-17	N-17.1	Jay Demasi	Requests the relocation of the Silver Line (SL) 4 route to the Dorchester Avenue side of South Station.	Comment acknowledged. Appendix 9 – *Ridership Forecasting Technical Report* addresses Silver Line ridership and estimated increases at current locations.

Letter #	#	Name	Comment Summary	Response
N-18	N-18.01	Michael S. Dukakis	Expresses concerns with deficiencies in the proposed DEIR scope of study.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.
	N-18.02		Urges that the North-South Rail Link be included as an alternative to be considered in the SSX project.	
	N-18.03		Urges the NSRL analysis to include an assessment of how the track approaches to the South Station tunnel can be integrated into the track, switch and signal modifications required for the SSX project.	

Letter #	#	Name	Comment Summary	Response
N-18	N-18.04	Michael S. Dukakis	Recommends that SSX DEIR include a study of means to optimize Inland Route services and preserve freight connectivity with a revised track and signal configuration through Allston.	MassDOT is collaborating with Amtrak to ensure that the SSX project will accommodate plans for Inland Route service. Preliminary estimates of Inland Route service are discussed in Appendix 9 – *Ridership Forecasting Technical Report.* MassDOT is simultaneously performing environmental review of the I-90 Allston Interchange project, which is located in an area that includes the Beacon Park Yard rail site and I-90 (the Massachusetts Turnpike). The Interchange project is examining how to best realign the transportation assets in this area while also addressing significant structural needs; highway operational changes (the introduction of All-Electronic Tolling); the construction of a commuter rail station; and the introduction of significant off-road multimodal connections throughout the area. MassDOT has determined that it is appropriate to consider these potential transportation changes under a single environmental review process. Therefore, MassDOT plans to continue environmental review of the Beacon Park Yard site as a layover facility as part of the I-90 Allston Interchange project's environmental review. An ENF for that project is anticipated to be filed with the Secretary of EEA in late 2014 concurrent with this DEIR.
	N-18.05		Notes that the ENF does not indicate how the relocation of the USPS facility would be funded.	MassDOT has funded the relocation of the USPS GMF through its Capital Investment Plan, published in January 2014.
	N-18.06		Notes that the real costs of a NSRL tunnel would be substantially lower than estimated costs.	See response to N-18.01.
	N-18.07		Notes the importance of developing a plan to move forward with integrating the rail system through New England and into Canada.	
	N-18.08		Notes that consideration of the NSRL as a project alternative would solve North Station's growing congestion problems.	

Letter #	#	Name	Comment Summary	Response
N-19	N-19.1	Stephen H. Kaiser	Requests minimal service parking as variation on Build alternatives and discussion of MBTA's sponsorship of development project which would increase downtown parking.	DEIR Chapter 3 addresses parking concerns associated with each alternative.
	N-19.2		Requests that alternatives analysis include assessment of pedestrian access through Dewey Square and Red Line capacity.	DEIR Sections 4.7 and 4.8 and Appendix 9 – *Pedestrian Analysis Technical Report* summarize the analysis of potential SSX project-related impacts to pedestrian access through Dewey Square and to MBTA Red Line capacity.
	N-19.3		Requests that layover options identify track configuration, trainset storage and need for drill track operations, including potential for improving/worsening track arrangements.	DEIR Section 3.6 provides layover conceptual site plans.

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N-19	N-19.4	Stephen H. Kaiser	Requests that alternatives preserve option for North-South rail link via protected corridor space.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.

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N-19	N-19.5	Stephen H. Kaiser	Requests documentation of MADEP designations, including protections offered for private vs. Commonwealth tidelands consistent with court cases.	DEIR Section 4.3 describes the Commonwealth tidelands status of the filled tidelands at the South Station site.
	N-19.6		Requests review of applicability of Article 97 protection to tidelands at site.	No Article 97 lands exist within the vicinity of South Station.
	N-19.7		Requests documentation land ownership/legislative action at South Station prior to Chapter 91 licensing.	DEIR Section 4.3 addresses Chapter 91 licensing.
	N-19.8		Requests documentation of land ownership, historical licensing at USPS facility site.	DEIR Section 4.3 addresses Chapter 91 licensing.
	N-19.9		Requests description of track area, station, and nearby building ventilation systems.	DEIR Section 3.7 provides conceptual site plans.
	N-19.10		Requests review of public-private partnership with respect to Article 7 of the Declaration of Rights of the MA Constitution (analysis included as separate attachment).	This is outside the scope of this project and MassDOT will not be addressing it as part of the SSX project.
	N-19.11		Requests that MBTA prepare a new Final EIR for EEA Project No.3205 (South Station Intermodal Transportation Center, involving renovation of headhouse, reconstruction of tracks and platforms, placement of bus terminal/parking garage, and placement of foundations for anticipated air rights development over the tracks).	The SSAR project (EEA Nos. 3205 and 9131) includes the expansion of the bus terminal/parking garage. The SSX project includes reconstruction of tracks and platforms and air rights development, as well as interface with the historic headhouse. Chapter 2 addresses the historical use of South Station.
	N-19.12		Requests review of light/shadow impacts to concourse due to new building intrusions.	DEIR Section 4.3 addresses shadow impacts.

Letter #	#	Name	Comment Summary	Response
N-20	N-20.1	Robert J. LaTremouille	Supports use of Beacon Park Yard for layover.	Comment acknowledged.
	N-20.2		Supports location of bike lanes on Dorchester Avenue.	Comment acknowledged.
	N-20.3		Supports basic expansion concept, including straightening out of track ends.	Comment acknowledged.
	N-20.4		Does not support use of Grand Junction for passenger service.	Comment acknowledged.
	N-20.5		Requests connection of office to South Station proper	As the design progresses, MassDOT will consider opportunities to incorporate the existing and proposed office space directly to the bus and rail waiting areas.
N-21	N-21.1	Joel Weber II	Requests evaluation of existing pedestrian traffic, projected pedestrian traffic regarding intermodal use, including needed capacity improvements on the Red Line, Silver Line (SL) 1/2 tunnel, and Hubway.	DEIR Sections 4.7 and 4.8 and Appendix 9 – *Ridership Forecasting Technical Report* summarize existing conditions and potential SSX project related impacts to pedestrian traffic.
	N-21.2		Requests evaluation of impact of increased riders on Red Line, with respect to signal technology and platform length.	Appendix 9 – *Ridership Forecasting Technical Report* summarizes SSX project related impacts to MBTA Red Line capacity.
	N-21.3		Requests review of SL1/SL2 ridership with respect to bus capacity and passing capabilities, including alternative options.	Appendix 9 – *Ridership Forecasting Technical Report* summarizes SSX project related impacts to MBTA Silver Line capacity.
	N-21.4		Notes that increases in Hubway ridership may require additional land in vicinity of South Station.	DEIR Sections 4.7 and 4.8 and Appendix 9 – *Traffic Analysis Technical Report* include details on measures taken to substantially reduce parking.

Letter #	#	Name	Comment Summary	Response
N-21	N-21.5	Joel Weber II	Requests review of NSRL with additional commuter rail stops as a means of reducing pressure upon South Station.	MassDOT is not currently pursuing the design or construction of any underground rail infrastructure connecting North and South Stations. Due to changes in the physical nature of the corridor since the construction of the Central Artery Project, as well as new assumptions regarding staging, construction and costs since the last formal assessment was made, MassDOT believes that the goals of the project can be mostly accomplished by more modest and incremental efforts, such as the expansion of South Station. Nevertheless, the South Station Expansion project continues to commit to expanding South Station in such a way that the goals of the project can be met without eliminating the potential for future underground infrastructure, such as tunnel portals and station locations. In 2003, a project termed the "North-South Rail Link" received a Secretary's Certificate(EOEA No. 10270) confirming its compliance with the Massachusetts Environmental Policy Act, but also asserting and acknowledging the MBTA's lack of financial capacity to execute the project. At this time, MassDOT believes that many of the capacity-expansion objectives associated with the construction of an underground north/south rail connection can be realized by the expansion of South Station for significantly less cost. In addition, MassDOT is currently prioritizing the advancement of projects in areas of the Commonwealth currently lacking, or underserved by, rail - particularly the South Coast and Worcester, which can be achieved through the South Station Expansion project. While MassDOT is strongly in favor of enhancing future passenger rail infrastructure along the Northeast Corridor - and is working now to plan and design an expanded South Station to help support those enhancements - it is not currently in a position to endorse extensive underground infrastructure that it does not believe to be necessary to reap meaningful benefits for passenger rail transportation in the commonwealth or along the Northeast Corridor. In the future, a project this large might be best pursued through a regional effort in the Northeast or through a federal process. Nevertheless, the commitment to protecting potential underground connection alternatives remains a goal of the South Station Expansion project.

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N-21	N-21.6	Joel Weber II	Requests review of additional passing sidings or double tracking as an alternative to increase capacity at South Station.	DEIR Chapter 2 discusses the project approach to increasing the capacity of South Station. MassDOT recognizes the importance of sidings and double tracking opportunities throughout the MBTA system, but these do not specifically increase South Station Terminal capacity.
	N-21.7		Recognizes important safety goals associated with at-grade crossings.	Comment acknowledged.
	N-21.8		Requests review of means to attract boating activity to southern part of Fort Point Channel.	Comment acknowledged.
	N-21.9		Requests review of pedestrian drop-offs along reopened Dorchester Avenue and Atlantic Avenue, including road improvements.	DEIR Sections 4.7 and 4.8 and Appendix 9 – *Transit Capacity Technical Report* include on drop-off activity.
	N-21.10		Requests evaluation of role of 1,000+ parking spaces in transit oriented development, including replacing parking spaces with additional transit, NSRL.	MassDOT worked closely with the City of Boston to refine the parking ratios projected as part of Alternative 2 and 3 and as a result have reduced the proposed parking by over 50% from what was presented in the ENF.
	N-21.11		Requests evaluation of taxi pricing structure and potential link between lower taxi fees and reduced parking space requirements.	This is outside the scope of this project and MassDOT does not address it as part of the SSX project.
	N-21.12		Notes technological advancement with computer-driven cars and parking and applicability to South Station.	Comment acknowledged.
	N-21.13		Requests review of existing bus routes and assessment of potential bus route changes, including along reopened Dorchester Avenue.	DEIR Sections 4.7 and 4.8 and Appendix 9 – *Transit Capacity Technical Report* include detailed bus route assessments, including boardings and alightings.
N-22	N-22.1	Wig Zamore	Supports private sector co-development options at South Station.	Comment acknowledged.
	N-22.2		Notes that transit nodes should be public meeting places.	Comment acknowledged. DEIR Sections 3.4 discusses design principles.

Letter #	#	Name	Comment Summary	Response
N-22	N-22.3	Wig Zamore	Notes important long-term goal of expanding electrified rail transit within the public transit mix.	Due to the benefits that an electrified rail network could offer, MassDOT holds the position that any new construction and expansion of the commuter rail system should not preclude the possibility of electrification in the future. As part of the plans for the South Station Expansion project, clearance and right-of-way designs will be carried out so that they will be able to accommodate electrification in the future. With the current financial and logistical limitations, however, MassDOT is not currently planning any system-wide electrification processes now or in the foreseeable future.
	N-22.4		Notes benefit of eliminating idling trains at South Station platforms.	Comment acknowledged.
	N-22.5		Expresses concern with expansion of diesel bus and rail capacity in the South Station area, due to black carbon's role in lung cancer and Greenhouse Gas emissions.	DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address diesel emissions and GHG emissions.
	N-22.6		Requests MassDOT's transparency in presenting the full range of potential diesel bus and rail capacity increases in the DEIR.	DEIR Sections 4.7 and 4.8 and Appendix 9 – *Transit Capacity Technical Report* include details on diesel buses and rail capacity increases.
	N-22.7		Notes high level of transportation-related (noise and air) pollution in South Station, Leather District and Chinatown, and requests that the DEIR provide detailed pollutant levels impacting neighborhoods, especially Chinatown, an environmental justice community.	DEIR Section 4.10 and Appendix 11 - *Noise and Vibration Technical Report* address noise and vibration impacts related to the SSX project and DEIR Section 4.9 and Appendix 10 - *Air Quality Technical Report* address air quality related to the SSX project.
	N-22.8		Requests detailed mitigation that MassDOT could provide to Chinatown, with respect to air quality and livability issues.	DEIR Section 4.10 and Appendix 11 - *Noise and Vibration Technical Report* address noise and vibration impacts related to the SSX project and DEIR Section 4.9. and Appendix 10 - *Air Quality Technical Report* address air quality related to the SSX project.