South Station Expansion: Successful NEPA Management Drives a Project Forward

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Key Presentation Take Aways

- Overcoming challenges
- Managing diverse stakeholders
- Lessons learned and best practices
Location in Northeast Corridor

New York / Washington DC

New York / Boston

Dominating Air/Rail Market

77%

54%

AMTRAK NEC

MBTA Commuter Rail
Location in Boston
Multimodality

Logan Airport
South Station
Fenway Park

Largest Commuter Rail System in US
Over 60%
Of MBTA Commuter Rail Passengers
ride on South Side service
Case Study: South Station Expansion Project
South Station - History

28 tracks (1899)
South Station – Today

- Second only to Logan Airport in New England, with 112,000 daily passengers
- Passenger spaces and platforms undersized and outdated
- Growth projections show an additional 50,000 passengers over 20 years
- Current rail infrastructure limits service reliability and expansion opportunities
Close Collaboration

MassDOT/MBTA (awarded $32.5 million in federal funds from FRA)

- FRA
- FTA
- U.S. Postal Service
- City of Boston
- Amtrak
- Massport
- Boston Region MPO
- Others...
Project Components

- Planning, MEPA, NEPA, and PE
- Acquire and demolish USPS facility
- Reopen Dorchester Avenue
- Extend Harborwalk
- Expand South Station facilities
- Construct midday layover facilities
- Provide opportunities for future joint/private development
Why Was This Project Successful at Navigating NEPA?

The Right TEAM
- Strong State DOT PM
- Engaged and Collaborative Federal Partners
- Experienced Consultant Partners

Address the issues.
Challenge #1: Defining an Effective Purpose and Need

- Set a clear purpose to be achieved
- Understand the need and the user groups impacted
- Demonstrate the problem being addressed
- Is it clear and concise?
- Is it well-documented and supported?
- Is the Purpose and Need setting an appropriate range for alternative development?
Project Purpose

- Enable growth in passenger rail transportation along the NEC and within the Commonwealth of Massachusetts;
- Improve service reliability through updates to rail infrastructure and related layover capacity;
- Improve the passenger capacity and experience of using South Station;
- Promote city-building in a key area of Boston; and
- Allow for Dorchester Avenue to be reopened for public use and enjoyment for the first time in decades.
Transportation Deficiencies (Needs)
Terminal Capacity Constraints

5 year period prior to DEIR

- Amtrak Acela OTP: 81-90%
- Amtrak Northeast Regional OTP: 75-87%
- MBTA Commuter Rail OTP: 82-94%

OTP Goal

95%
Transportation Deficiencies (Needs)

Inadequate Station Facilities

Pedestrian areas should meet LOS C (peak period)

Current space: +/-15,000 sf

Current Daily Passengers:
46,000 Commuter Rail/Amtrak + 82,000 rapid transit

LOS E and LOS F
Transportation Deficiencies (Needs)

Insufficient Layover Space

• MBTA does not have sufficient storage space for existing service
• Additional layover storage is necessary to accommodate additional service
Solution

- Engage your stakeholders early and often
- Clearly state need and identify purpose and goals
- Allow for multiple iterations when required
- Conduct a solid and complete planning foundation
- Develop performance measures with quantifiable results to address the needs
Challenge #2: Alternatives Development Process

- Collaborate and coordinate with stakeholders
- Identify alternatives to address the need
- Evaluate reasonable range of prudent and feasible alternatives
- Establish a solid planning foundation
- Manage multi-faceted project
Major Project Elements – Alternatives Analysis

1. Headhouse
2. Terminal Rail
3. Layover
4. Joint Development
5. Dorchester Ave
Solution

1. Layover sites screened from 28 to 10 to 3. Four rail alternatives developed. Headhouse concepts developed.

2. Layover sites increased to 4. Rail alternatives screened to 2. Headhouse alternatives screened to 3.


4. Joint development alternatives developed. All are compatible with Preferred Headhouse, Rail, and Layover Alternatives.

5. Roadway alternatives developed to correspond with joint development alternatives.

6. Preferred Build Alternative made up of five elements:
   1. Headhouse Alternative
   2. Rail Alternative
   3. Layover Alternative
   4. Joint Development Alternative
   5. Roadway Alternative

Build Alternative: Transportation Improvements Only
   - Roadway Alternative 1
   - Roadway Alternative 2

Minimum Build Joint Development

Maximum Build Joint Development
Terminal Track Alternatives Analysis

Physical / Geographic Constraints

- Rail Bridge
- I-90 Vent Building
- Terminal Track Expansion Area
- Highway Access Ramps
- SSAR and Bus Garage
Terminal Track Alternatives Analysis

- Operational Flexibility
- Platform Accessibility
Station Headhouse Alternatives Analysis

Identifying Existing and Future Demand
Station Headhouse Alternatives Analysis

- Passenger Circulation
- Multimodal Connectivity
Solution

SSX Preferred Alternative
Challenge #3: Successfully Managing Stakeholders with Multiple Needs/Interests

- Diverse Multimodal Users of the Station
  - Regional / Intercity
  - Commuter
  - Rapid Transit
  - Neighborhood

- Numerous Agencies with Varying Jurisdiction
  - Federal
  - State
  - Local
Agency Coordination – Steering Committee

• Agency Members
  – FRA
  – Amtrak
  – MBTA

• Recurring Meetings
  – Future Operating Plans
  – Station Programming
  – Basis of Design (Engineering Standards)
Agency Coordination – City of Boston

- Municipal Harbor Plan
- Dorchester Avenue
Stakeholder Coordination – Other Projects
Public Involvement

- Project mailing list
- Social Media: MassDOT Blog, Twitter, and Facebook
- Meetings and Events:
  - Open Houses
  - Information Sessions at South Station
  - Information Sessions at Dewey Square Market
  - Institution and Business Briefings (35+)
  - Neighborhood and Advocacy Group Briefings (15+)
  - Agency and Elected Official Briefings (25+)
- Online Surveys in Multiple Languages
  - Over 800 Respondents in Fall 2013 amenities survey
  - Over 700 Respondents in bike/ped survey
Solution

• Coordination with multimodal users
• Significant Agency Collaboration
• Engaged the public throughout the entire planning and NEPA processes
• Tailored the process to the project
• Involved the public as stakeholders
• Fostered consensus building
Lessons Learned

• Communication - Stakeholders
  • Comprehensive Coordination with Stakeholders
  • Inform Them / Educate the Project
  • Frequent and Recurring

• Collaboration - Agencies
  • Understand Jurisdictional Responsibilities Early
  • Engage Them in Alternatives Analysis Process
  • Collaborate on Design Standards

• Consensus - All
  • “A consensus means that everyone agrees to say collectively what no one believes individually.” – Abba Eban
Thank you

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