U.S. Department
of Transportation

**Research and
Special Programs
Administration**

# The National Parks of Massachusetts: Planning Studies for a Traveler Information System and Visitor Transportation Facilities

*Prepared for*:
U.S. Department of the Interior
National Park Service
Boston Support Office

Boston, Massachusetts

*Prepared by*:
U.S. Department of Transportation
Research and Special Programs Administration
John A. Volpe National Transportation Systems Center

Cambridge, Massachusetts

August 2003

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**REPORT DOCUMENTATION PAGE**

*Form Approved*
*OMB No. 0704-0188*

Public Reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comment regarding this burden estimates or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188,) Washington, DC 20503.

| 1. AGENCY USE ONLY (Leave Blank) | 2. REPORT DATE<br>August 2003 | 3. REPORT TYPE & DATES COVERED<br>2001 - 2003 |
|---|---|---|

| 4. TITLE AND SUBTITLE<br>The National Parks of Massachusetts:<br>Planning Studies for a Traveler Information System and Visitor Transportation Facilities | 5. FUNDING NUMBERS |
|---|---|
| 6. AUTHORS<br>Jeffrey Bryan, Katherine Fichter, John Jacobsen, Jane Lappin, Sean Peirce, Eric Plosky, Andreas Savvides, Eran Segev | |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br>U.S. Department of Transportation<br>Research and Special Programs Administration<br>John A. Volpe National Transportation Systems Center<br>55 Broadway, Kendall Square<br>Cambridge, MA 02142 | 8. PERFORMING ORGANIZATION REPORT NUMBER |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)<br>U.S. Department of the Interior<br>National Park Service<br>Boston Support Office<br>15 State Street<br>Boston, MA 02109 | 10. SPONSORING AGENCY REPORT NUMBER |

11. SUPPLEMENTARY NOTES

| 12a. DISTRIBUTION/AVAILABILITY | 12b. DISTRIBUTION CODE |
|---|---|

13. ABSTRACT

This report provides an analysis of new ways to facilitate visitation to the National Parks of Massachusetts through improved provision of traveler information. The report explores potential improvements to several elements of the region's Traveler Information System (TIS), including a system-wide visitor-oriented website. The report also identifies options for providing visitor orientation through a centralized transportation hub in Boston. A prominent partnership opportunity is that with the Boston Museum Project's planned history museum in downtown Boston.

| 14. KEY WORDS<br>National Park Service, Boston, Massachusetts, Traveler Information System, Orientation Center, Boston History Museum, Central Artery, Transportation Hub | 15. NUMBER OF PAGES<br>98 pages |
|---|---|
| | 16. PRICE CODE |

| SECURITY CLASSIFICATION OF REPORT<br>None | SECURITY CLASSIFICATION OF THIS PAGE<br>None | SECURITY CLASSIFICATION OF ABSTRACT<br>None | LIMITATION OF ABSTRACT |
|---|---|---|---|

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. 239-18
298-102

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*Authors:*
Jeffrey Bryan, Katherine Fichter, John Jacobsen, Jane Lappin, Sean Peirce, Eric Plosky, Andreas Savvides, Eran Segev

*Date:*
August 2003

*Prepared by:*
U.S. Department of Transportation
Research and Special Programs Administration
John A. Volpe National Transportation Systems Center

*Prepared for:*
U.S. Department of the Interior
National Park Service
Northeast Region

*For More Information:*
Dr. Jeffrey Bryan
DTS-46 – Planning and Policy Analysis Division
Volpe National Transportation Systems Center
55 Broadway, Kendall Square
Cambridge, MA 02142
617.494.2061
bryanj@volpe.dot.gov

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## ACKNOWLEDGEMENTS

The authors wish to thank the numerous organizations and individuals who graciously provided their time, knowledge, and guidance in the development of this report. Those organizations of particular note are listed below.

- Adams National Historical Park
- Artery Business Committee
- Blackstone River Valley National Heritage Corridor
- Boston African-American National Historic Site
- Boston Harbor Islands, a national park area
- Boston Museum Project
- Boston National Historical Park
- Boston Redevelopment Authority
- Boston Transportation Department
- Cape Cod National Seashore
- Frederick Law Olmsted National Historic Site
- Greater Boston Convention and Visitors Bureau
- John F. Kennedy National Historic Site
- Longfellow National Historic Site
- Lowell National Historical Park
- Massachusetts Office of Travel and Tourism
- Massachusetts Turnpike Authority
- Minute Man National Historical Park
- Move Massachusetts
- National Park Service, Northeast Regional Office
- New Bedford Whaling National Historical Park
- Salem Maritime National Historic Site
- Saugus Iron Works National Historic Site

## EXECUTIVE SUMMARY

***Background***

Massachusetts is home to a diversity of National Park Service (NPS) units, each offering a unique window into the natural and cultural heritage of Massachusetts, New England, and the United States as a whole. Together with their regional partners, the National Parks of Massachusetts provide a wide-ranging picture of the history of Massachusetts, from the pre-Colonial period to the Industrial Revolution and beyond. The National Parks of Massachusetts are a vital link to the past, making history accessible to new generations.

As part of an effort to facilitate visitation to the National Parks of Massachusetts, this report offers guidance and recommendations for the improved provision of visitor services and traveler information. At present, there is no central information system to offer the 12 million annual visitors to the Boston metropolitan area comprehensive orientation information on the resources and services of the region, a gap which can generate visitor confusion, allow important cultural sites to be missed, and lead to inefficient use of the transportation network. A comprehensive system for the provision of visitor information could alleviate these problems, while also encouraging visitation to a wider variety of NPS and NPS partner facilities across Massachusetts.

Visitors learn about and travel to the National Parks of Massachusetts by a variety of means, suggesting that a range of types of traveler and orientation information needs to be more widely available. This analysis explores the potential of two complementary initiatives: (1) the upgrading of several key elements of the traveler information network of Massachusetts, with an emphasis on Internet-based trip planning tools, and (2) the development of an expanded system of NPS transportation and orientation facilities in downtown Boston. Together, these elements would help to create a holistic system for the provision of traveler information and orientation materials.

Many of the National Parks of Massachusetts differ from NPS facilities in other parts of the United States in that they are closely knit into the urban and regional fabric of the area and are part of a dense network of historical and cultural resources available to residents and visitors alike. This interdependence presents many opportunities for NPS to partner with other organizations and institutions, and requires that the planning and development of a comprehensive system of information provision be done in a collaborative environment with a variety of public, private, and non-profit stakeholders.

Expanded visitor services in the heart of historic Boston offer the potential to increase cultural tourism, a segment of the tourism industry that is of rising importance for the local and regional economies. Massachusetts has long been a significant draw for visitors, and the facilities of the National Park Service and its partner organizations are an important part of the tourist landscape of the area. In 2001, three NPS units located in Boston – Boston National Historical Park, Boston African-American National Historic Site, and Boston Harbor Islands – were estimated to have received 3 million visitors, a significant portion of who were out-of-state tourists. Through expenditures on lodging, dining, retail, and other items, these visitors make an important

contribution to the local economy, a contribution estimated at $480 million in 2001[1]. An overall improvement in the quality of the tourist experience, therefore, could have significant economic ramifications for the region as a whole, potentially generating an increased number of visitors to the cultural attractions of the area and leading to an extended length of stay for the average visitor. With the Democratic National Convention scheduled to be held in Boston during the summer of 2004, an effort to improve the quality and character of the visitor experience in Massachusetts is particularly timely. The result of such an effort could be an increase in tourism-related revenues, an enhancement of the overall visitor experience, and an improvement in the quality of life and long-term economic competitiveness of the region.

## ***Park Units Considered***

The traveler information needs of eighteen NPS units – fourteen park units, three national heritage areas, and one national scenic trail – are considered in this report:

- Adams National Historical Park - Quincy
- Appalachian National Scenic Trail - Western Massachusetts
- Blackstone River Valley National Heritage Corridor - Blackstone Valley
- Boston African-American National Historic Site - Boston
- Boston Harbor Islands, a national park area - Boston Harbor
- Boston National Historical Park - Boston
- Cape Cod National Seashore - Cape Cod
- Essex National Heritage Area - Eastern Massachusetts
- Frederick Law Olmsted National Historic Site - Brookline
- John F. Kennedy National Historic Site - Brookline
- Longfellow National Historic Site - Cambridge
- Lowell National Historical Park - Lowell
- Minute Man National Historical Park - Concord, Lincoln, Lexington
- New Bedford Whaling National Historical Park - New Bedford
- Salem Maritime National Historic Site - Salem
- Saugus Iron Works National Historic Site - Saugus
- Springfield Armory National Historic Site - Springfield
- Quinebaug and Shetucket Rivers Valley National Heritage Corridor - South-Central Massachusetts/Northeastern Connecticut

## ***Methodology***

### *Traveler Information Systems (TIS)*

Each National Park Service facility has a unique set of needs for the provision of transportation information and visitor orientation. Those needs were assessed here by an extensive review of planning documents – including General Management Plans and Strategic Plans – prepared by the eighteen National Parks of Massachusetts and their partner facilities. Members of the management and interpretive staff of many of the Parks were also interviewed. Throughout this

[1] Based on data from the National Park Service, the Greater Boston Convention and Visitors Bureau, and the Massachusetts Office of Travel and Tourism.

process, the individual needs of each park were elucidated, as were the overarching themes and characteristics that link the needs of the parks together. A design committee composed of NPS planners reviewed these themes and provided ongoing feedback throughout the development of the TIS-related elements of this report.

*A System of Transportation and Orientation Facilities*

The plans for a network of transportation and orientation facilities in Boston began with the development of a set of objectives. Interviews with NPS staff, a study of transportation hubs in other cities, and discussions with potential project partners helped to inform this analysis. A number of locations in central Boston were identified and a set of criteria were developed by which the suitability of each location could be measured. Each site was then analyzed according to those criteria, which included size and layout, transportation potential, planning and zoning restrictions, and other considerations. The summary report includes the results of the analyses of these locations, plus final recommendations for developing an expanded network of transportation and orientation centers. In particular, this summary report focused on the potential offered by three particular sites: Faneuil Hall, Parcel 6 of the future Rose Kennedy Greenway, and Parcels 14-15 of the future Rose Kennedy Greenway. The report also includes analyses of the potential impacts – impacts to the economy, the transportation network, and the visitor experience – of the projects.

## ***Traveler Information Systems (TIS)***

*Components*

Components of a comprehensive Traveler Information System can include highway and street signage, real-time transportation information, individual websites for each of the National Parks of Massachusetts, a system-wide visitor-oriented website, and improved brochures, maps, and marketing material. The TIS envisioned here would serve the interests of the eighteen NPS and NPS-partner units of Massachusetts and their visitors through the provision of improved Internet-based travel planning tools. A coordinated traveler information system would enhance visitors' capacity to obtain the information they need in a timely way, plan their trips well, and benefit from the thematic links among the numerous Federal and non-Federal destinations in the region. Such an on-line system could (1) provide trip-planning information, (2) enhance visitors' interpretational and educational experiences, (3) facilitate regional coordination, (4) include real-time visitor information where appropriate, (5) meet the website needs of the parks, and (6) be sensitive to any special considerations of the individual parks.

*Context*

The TIS needs of the NPS and NPS-partner units of Massachusetts differ based on their locations, settings, and primary audiences. In general, these distinctions can be categorized based on urban and non-urban contexts.

**Urban Context**

- Emphasize the use of alternative transportation.
- Provide accurate directional and traffic information, including information about seasonal and peak-hour transportation.
- Make real-time parking information available.

- Accommodate the travel needs of large visiting groups, including school groups.
- Highlight NPS and NPS-partner facilities.

**Non-Urban Context**

- Provide accurate directional and traffic information, including information about seasonal and peak-hour transportation.
- Make real-time parking information available.
- Offer information about local lodging, dining, and other services, including restrooms.
- Provide trip-planning information for visitors planning to explore multiple sites in the region.
- Make information available on seasonal events, performances, and climate.

Lastly, it is important to note that the NPS and NPS-partner units of Massachusetts receive a variety of types of visitors with a variety of interests, depending on the specific park, season, time of the week, and other factors. A Traveler Information System for the region should take into account the different characteristics of the various visitor profiles in order to better cater to potential visitors. Various forms of media – Internet, signage, advertisements, brochures – and types of information can be more effective than others at reaching particular audiences.

***A Network of Transportation and Orientation Centers***

*Scenarios*

The possibilities for transportation and orientation facilities encompass a range of options: different partnership opportunities, various locations around Boston – based upon geographic characteristics identified as necessary and important – and different ideas about the types of visitor services to be offered. This report examines those factors and lays out four conceptual plans and the space requirements needed for each. These scenarios could be implemented individually or as part of a system, in which the facilities are developed over time or all together, in order to provide a comprehensive network of transportation and orientation services. The scenarios examined were:

1. An NPS regional orientation center located in Boston, managed by the NPS in concert with other partners and providing information focused on NPS facilities. Depending on the amount of available space, the following configurations would be possible:

   - A small *satellite* office to provide information on regional NPS facilities and basic orientation services.
   - With more space available, a *basic* NPS orientation center could provide information and orientation services, plus some level of visitor amenities, such as public restrooms.
   - An *expanded* NPS orientation center could provide orientation services and visitor amenities, as well as a range of additional services such as a shop, restaurant,

interpretive exhibits, and multimedia resources.

2. An NPS regional orientation center operated in partnership with a publicly sponsored tourism agency providing information and services that could include ticketing and reservations for commercial establishments, such as restaurants and lodging.

3. An NPS regional orientation center operated in partnership with a major cultural institution like the Boston Museum, providing information on NPS facilities as well as on cultural and historic sites more generally, and participating with the Boston Museum in activities and programs to be determined.

4. An NPS regional orientation center operated in partnership with both a major cultural institution – like the Boston Museum – and a publicly sponsored tourism agency, combining elements of scenarios 2 and 3 to provide information on NPS areas, cultural and historic sites, and commercial establishments.

***Stakeholder Analysis***

White Oak Associates, a museum-planning consultancy, analyzed the potential for a collaborative project between the Boston Museum and the National Park Service. Because any partnership with a major cultural institution would depend crucially on support from other stakeholders, one important component of this evaluation was a stakeholder analysis that measured the opinions of other cultural institutions in Massachusetts regarding (1) their need for and interest in museum support services and (2) their opinions toward a combined transportation hub, orientation center, and cultural institution in downtown Boston. Generally speaking, there was support for the idea of a facility that would encourage tourists to visit the historic and cultural sites in Massachusetts area and give them the orientation services needed to do so.

Overall, the analysis concluded that a system of linked orientation and information services, when presented in partnership with other cultural offerings, would address four primary needs:

- Providing geographic and thematic orientation.
- Providing greater exposure for the many museums and historic sites.
- Helping to reduce congestion by offering a major transportation solution.
- Providing clean, friendly visitor services for people arriving and leaving downtown Boston.

***Economic Impact***

Enhanced and expanded transportation, orientation, and information services in downtown Boston would be expected to draw greater numbers of visitors than does the present Boston NPS visitor center. The exact number of visitors to the new center would, of course, depend on location and size, as well as the range of services offered. The possibility of both an expanded NPS facility at Faneuil Hall and/or the co-location of an NPS center with an institution like the Boston Museum offers the potential for significantly expanded visitation. The Faneuil Hall Contact Station is expected to receive 1.5 million visitors per year, and feasibility studies have estimated that the Museum alone could draw approximately 662,000 paying visitors per year.[2] A

[2] Based on data from White Oak Associates.

partnership with NPS could attract even more visitors.

Research indicates that "cultural" tourists – i.e. those drawn to patrimony sites, such as the National Parks of Massachusetts – constitute a wealthier, higher-spending demographic. This group of tourists also tends to add extra time to their trips in order to take advantage of cultural resources. An enhanced transportation and orientation center, particularly when partnered with a significant cultural institution, would certainly represent a strong effort to attract more of these cultural tourists to Boston and to provide them with the additional resources needed to make the most of their trip. The concomitant increases in visitor stays and spending that could result from such efforts would also tend to increase the regional economic impact of NPS-oriented visitation. Based on one set of fairly conservative assumptions, the regional impact of attracting additional cultural tourists to the Boston area is estimated at approximately $40 million of annual revenue.

***Recommendations***

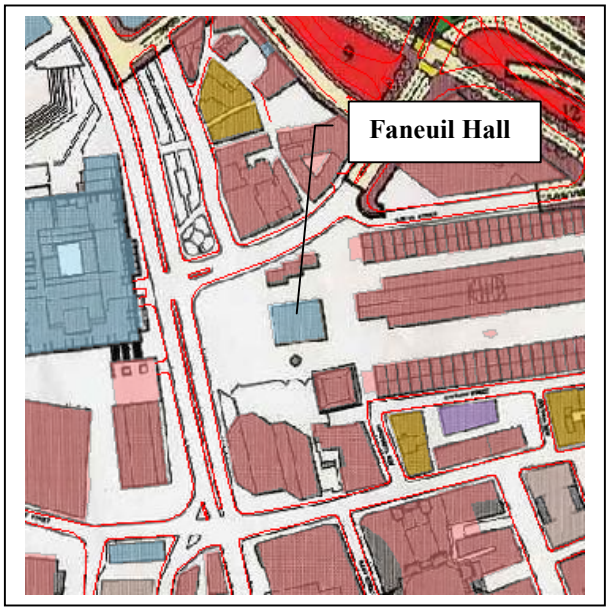
*Traveler Information Systems (TIS)*

The report presents a detailed, conceptual design of one component of the regional TIS proposed for the eighteen National Parks of Massachusetts and partner facilities: the Internet-based provision of travel-related information. The National Parks of Massachusetts do not currently have an effective unifying Internet presence. Each of the National Parks of Massachusetts has its own standard page on the main website of the National Park Service, each of which provides general background and travel information and some of which include interactive elements. As part of an enhanced Internet-based TIS, a new National Parks of Massachusetts website could (1) present the eighteen facilities as a regional group of geographically and thematically linked visitor destinations, (2) assist the user in identifying parks and events of interest, (3) facilitate travel planning based on the type of visitor or visitor group, available time, preferred modes of transportation, and any special circumstances, and (4) reinforce the identify of the National Park Service as a whole by maintaining the look and feel of other NPS-produced printed and web-based materials. The new National Parks of Massachusetts website could incorporate any existing websites and could be designed so that NPS staff would need to post information to only one, consolidated site.

A design committee comprised of selected staff members from the area NPS units took part in defining the direction and design of a potential National Parks of Massachusetts website. The following features could be included on the website, which could function in concert with a revised version of the existing NPS *Parknet* website.

- **Introductory Information** - Explanation of the relationships among the National Parks of Massachusetts and partner facilities, identifying the parks and themes and showing locations on a map.
- **Park Information** - Provision of the necessary park information identified by the interview and analysis process, to be provided for all the National Parks of Massachusetts.
- **Tour Planning** - Assistance for the user in identifying parks and park-sponsored events that meet his or her interests.

- **Travel-Planning Assistance** - Formulation of travel itineraries and directions for visits to user-selected parks, with assistance in selecting modes of transportation, placing reservations, and finding other relevant information.
- **Beyond the Park Information** - Information about dining and lodging options and non-NPS attractions and events.




In addition to the features listed here, some of the TIS capability could most effectively and efficiently be borrowed from outside websites. For driving directions, online mapping and direction-generating companies provide quick and detailed directions for all parts of the country. Visitors to the website would likely be familiar with these other websites. For an annual fee, the National Parks of Massachusetts could use one of these online mapping companies.

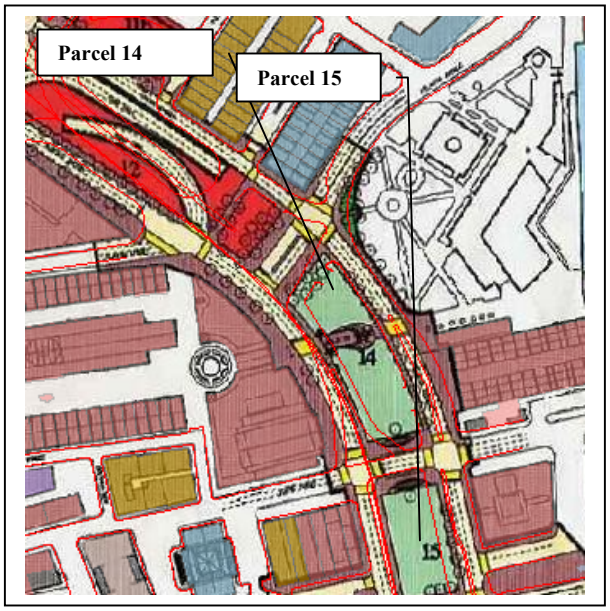
Transit agencies are also increasingly entering the route-planning world. The Massachusetts Bay Transportation Authority (MBTA), which operates public transportation in and around Boston, is in the process of adding route planning capability to its website. MBTA information technology and website representatives have expressed willingness to collaborate with the NPS parks. In the short run, the MBTA has included in its route planner a list of all of the National Parks of Massachusetts and partner sites within walking distance of a public transit stop, enabling users to easily obtain directions without knowing the full name or address of the site. In the long run, the MBTA would be willing to explore ways of developing a direct link between its website and the National Parks of Massachusetts site, for automated direction-generating capability similar to that possible with commercial mapping websites.

*Transportation and Orientation System*

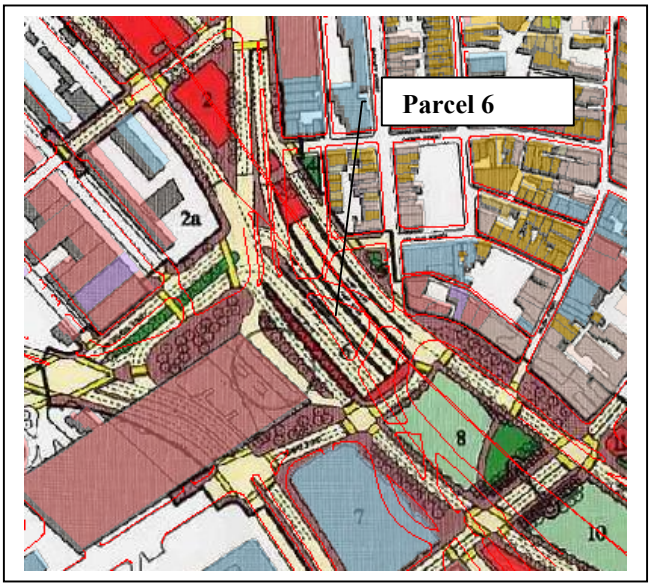
In order for the proposed transportation hub/visitor orientation system to provide broad-based travel and visitor information, it should function as a "central exchange" in a wider network of local and regional destinations. Its importance within that network becomes stronger if (1) the facilities are sited along the confluence of routes leading visitors to established attractions, and (2) the facilities are in close proximity to major transportation nodes. Moreover, strategic partnerships can enrich its scope of operations so that the information facilities become a destination in and of themselves, serving not only a local but also a regional constituency. There are several possible locations for a transportation and orientation center, each of which could be developed on its own or as part of a larger network of orientation and transportation facilities. These recommendations are described in greater detail in the National Park Service proposal *PMIS 88393* and its funding components A, B, C, D, and E.

1. We recommend that the existing Visitor Contact Station located on the first floor of historic Faneuil Hall be expanded. An expanded facility could include additional information desks – perhaps managed with the City of Boston in a partnership similar to that between the City of Philadelphia and NPS for the management of the Visitor Center at Independence National Historical Park – and accessible restrooms, and could use digital kiosks to showcase the new National Parks of Massachusetts on-line traveler information website. The National Park Service would not be required to pay any rental or lease costs at Faneuil Hall, thereby maximizing the potential to leverage funds. Furthermore, Faneuil Hall Marketplace, one of the most successful and vibrant historic market revitalization projects in the United States, offers unique opportunities to serve upwards of 3 million annual visitors to Boston National Historical Park. It is located directly on the Freedom Trail and is within one-fourth of a mile of three major public transit stations. Faneuil Hall is also within walking distance of public parking and offers some possibilities for parking and tour bus pick-up/drop-off. As a well-known landmark with established visitation, Faneuil Hall offers the National Park Service many unique opportunities to expand its provision of comprehensive orientation and transportation information, either as an individual facility or as part of a comprehensive network.

2. A small facility could be constructed on Parcels 14-15 of the future Rose Kennedy Greenway, offering visitors access to information along the major pedestrian route between Faneuil Hall Marketplace and the New England Aquarium. Parcels 14-15 are well located to provide visitors with information about the Boston Harbor Islands, a national park area, and are within easy walking distance of three public transit stations and two ferry landings. Like Faneuil Hall, Parcels 14-15 have limited adjacent parking and are in a heavily trafficked area of downtown Boston.




3. As discussed, an opportunity exists in the on-going partnership between NPS and the Boston Museum Project (BMP), possibly on Parcel 6 of the future Rose Kennedy Greenway. A comprehensive visitor orientation facility – one with the potential to be larger than the facilities at Faneuil Hall or on Parcels 14-15 – could address the objectives of NPS, BMP, and greater Boston by taking advantage of the synergies generated by several entities in creating a "one-stop" service for area visitors offering traveler facilities, information, and customized orientation. A partnership with the Boston Museum Project also offers NPS the potential benefits of being able to colocate with




another cultural institution, rather than owning and maintaining a facility on its own. It must also be noted that, of the three possible locations, the Parcel 6/Boston Museum Project is the most long-term effort, requiring a successful, and significant, fundraising effort on the part of BMP.

The three options presented here for the facilities of an expanded transportation and orientation system could be developed individually, in concert, or in succession. The development of any one of the options would represent a significant improvement over the existing visitor orientation services and the development of more than one would create a sophisticated network of visitor information options, located in the heart of downtown Boston but serving the cultural resources of Massachusetts as a whole. A full-service visitor orientation and transportation center, when operated in conjunction with a comprehensive traveler information website and an upgraded network of signage and wayfinding materials, could offer a comprehensive system for guiding and improving the experience of visiting the cultural and historic resources of Massachusetts.

All three of the possible locations described here share certain advantages. All are highly visible and well placed to attract the many visitors who traverse the Freedom Trail and the routes between Faneuil Hall Marketplace and Boston Harbor. With other historic attractions in the vicinity such as King's Chapel and the Old State House, more mainstream destinations such as the Fleet Center and the Aquarium just blocks away, and the gateway to the North End neighborhood nearby, any of these three sites could be ideally located as a central point from which to orchestrate a visitor's excursion through the area. From a transportation perspective, both North Station and South Station are located within walking distance of the three sites, serving regional Commuter Rail and Amtrak travelers. A further planning study is recommended for a shuttle service along the Rose Kennedy Greenway from North Station to South Station, with stops at cultural and recreational sites. Such a shuttle, which could tie together existing elements of the public transit network, could also be helpful for commuters. Lastly, the MBTA garage bus terminal, as well as Parcels 7 and 8, offer potential opportunities for pick-up/drop-off areas for school and/or tour buses, trolleys, and private automobiles.

## INTRODUCTION

Massachusetts is home to a diversity of National Park Service (NPS) units, each offering a unique window into the natural and cultural heritage of Massachusetts, New England, and the United States as a whole. Together with their regional partners, the National Parks of Massachusetts provide a wide-ranging picture of the history of Massachusetts, from the pre-Colonial period to the Industrial Revolution and beyond. The National Parks of Massachusetts are a vital link to the past, making history accessible to new generations.

As part of an effort to facilitate visitation to the National Parks of Massachusetts, this report offers guidance and recommendations for the improved provision of visitor services and traveler information. At present, there is no central information system to offer the 12 million annual visitors to the Boston metropolitan area comprehensive orientation information on the resources and services of the region, a gap which can generate visitor confusion, allow important cultural sites to be missed, and lead to inefficient use of the transportation network. Automobile access in the Boston area is confusing, particularly for first-time visitors unfamiliar with the unusually complicated street networks of older New England communities. The difficulty of negotiating Boston streets and traffic, and the scarcity and high cost of parking, often discourages visitors from traveling among the Boston area NPS sites and beyond to other NPS units of Massachusetts. Furthermore, many visitors are unfamiliar with the seasonal fluctuations in regional traffic congestion – such as that experienced by the Cape Cod National Seashore during the summer – making area travel even more complicated. A comprehensive system for the provision of visitor information could help to alleviate these problems, while also encouraging visitation to a wider variety of NPS and NPS partner facilities across Massachusetts.

Visitors learn about and travel to the National Parks of Massachusetts by a variety of means, suggesting that a range of types of traveler and orientation information needs to be more widely available. This analysis explores the potential of two complementary initiatives: (1) the upgrading of several key elements of the traveler information network of Massachusetts, with an emphasis on Internet-based trip planning tools, and (2) the construction of an expanded network of NPS transportation and orientation facilities in downtown Boston. Together, these two elements would help to create a holistic system for the provision of traveler information and orientation materials.

Many of the National Parks of Massachusetts differ from NPS facilities in other parts of the United States in that they are closely knit into the urban and regional fabric of the area and are part of a dense network of historical and cultural resources available to residents and visitors alike. This interdependence presents many opportunities for NPS to partner with other organizations and institutions across the Commonwealth, and requires that the planning and development of a comprehensive system of visitor information be done in a collaborative environment with a variety of public, private, and non-profit stakeholders.

Most of the NPS and NPS partner sites are accessible by multiple public transportation modes operated by the Massachusetts Bay Transportation Authority. Despite the availability of these services and the excellent potential that they offer as an alternative means of transportation access to the sites, little or no information is provided at critical decision points to direct visitors from transit services to NPS and partner sites in the vicinity. In addition to public transportation

services, interpretive tour services are provided by a number of private operators, including several tourist trolley operations and the Boston Duck Tours operation. The Freedom Trail Foundation, in partnership with the NPS, also provides trolley service through a contract with one of the local operators. Most of these are not scheduled public transit services, with service provided on designated routes linking both NPS and other tourist sites.

Expanded visitor services in the heart of historic Boston offer the potential to increase cultural tourism, a segment of the tourism industry that is of rising importance for the local and regional economies. Massachusetts has long been a significant draw for visitors, and the facilities of the National Park Service and its partner organizations are an important part of the tourist landscape of the area. In 2001, three NPS units located in Boston – Boston National Historical Park, the Boston African-American National Historic Site, and the Boston Harbor Islands, a national park area – were estimated to have received 3 million visitors, a significant portion of whom were out-of-state tourists. Through expenditures on lodging, dining, retail, and other items, these visitors make an important contribution to the local economy, a contribution estimated at $480 million in 2001[1].

An overall improvement in the quality of the tourist experience, therefore, could have significant economic ramifications for the region as a whole, potentially generating an increased number of visitors to the cultural attractions of the region and leading to an extended length of stay for the average visitor. With the Democratic National Convention scheduled to be held in Boston during the summer of 2004, an effort to improve the quality and character of the visitor experience in Massachusetts is particularly timely. The result of such an effort could be an increase in tourism-related revenues, an enhancement in overall visitor experience, and an improvement in the quality of life and long-term economic competitiveness of the region.

***Park Units Considered***

The traveler information needs of eighteen NPS units – fourteen park units, three national heritage areas, and one scenic trail – are considered in this report:

- Adams National Historical Park - Quincy
- Appalachian National Scenic Trail - Western Massachusetts
- Blackstone River Valley National Heritage Corridor - Blackstone Valley
- Boston African-American National Historic Site - Boston
- Boston Harbor Islands, a national park area - Boston Harbor
- Boston National Historical Park - Boston
- Cape Cod National Seashore - Cape Cod
- Essex National Heritage Area - Eastern Massachusetts
- Frederick Law Olmsted National Historic Site - Brookline
- John F. Kennedy National Historic Site - Brookline
- Longfellow National Historic Site - Cambridge
- Lowell National Historical Park - Lowell
- Minute Man National Historical Park - Concord, Lincoln, Lexington

[1] Based on data from the National Park Service, the Greater Boston Convention and Visitors Bureau, and the Massachusetts Office of Travel and Tourism.

- New Bedford Whaling National Historical Park - New Bedford
- Salem Maritime National Historic Site - Salem
- Saugus Iron Works National Historic Site - Saugus
- Springfield Armory National Historic Site - Springfield
- Quinebaug and Shetucket Rivers Valley National Heritage Corridor - South-Central Massachusetts/Northeastern Connecticut

***Background***

This project was originally conceived to develop ways to improve the visitor experience through better information and orientation to the National Parks of the greater Boston area – including Boston National Historical Park, Boston Harbor Islands, Boston African-American National Historic Site, and Adams National Historical Park – as recommended from the previous alternative transportation study *Boston Harbor Sites Alternative Transportation Systems Report* (June 2001). As the Volpe Center Study Team began this current project, however, a larger Northeast Region National Park Service effort was launched independently to link all of the eighteen National Parks of Massachusetts together to share and resolve common issues among themselves. This effort, and its mission to better understand traveler information needs and find opportunities for a centralized transportation hub, was deemed an ideal project to fall under the larger Massachusetts travel information banner.

The Volpe Center Team worked with a team of NPS planners and visitor services staff from several Massachusetts parks – Boston NHP, Minute Man NHP, Lowell NHP, Cape Cod NS, and Boston Harbor Islands – to collect data from the parks, analyze the individual needs of the parks, develop traveler information alternatives, and complete site analyses for the Boston downtown transportation hub. The Volpe Center Team reported its findings to the superintendents of the Massachusetts NPS facilities at monthly meetings.

One of the key findings of this study is the need to understand and implement a system of traveler information and orientation, which takes the form of both Internet technology and physical transportation hubs and visitor contact stations. Visitors to the NPS facilities of Massachusetts get their information from a variety of sources and locations. The provision of a consistent message and helpful orientation information – information that takes a statewide or regional perspective – is more effective and ultimately more efficient than a piecemeal, park-by-park approach. Most importantly, information should be provided to the public through a system of facilities and technologies, a system that offers visitors multiple opportunities to receive appropriate orientation and interpretative information. This report is premised on the idea that a systems approach to the provision of visitor information will be the most effective and beneficial for the NPS facilities, and the facilities of NPS partners, located throughout Massachusetts.

# CHAPTER I. THE NATIONAL PARKS OF MASSACHUSETTS: INFORMATION AND ORIENTATION NEEDS

*Traveler Information*

Each National Park Service facility has a unique set of needs for the provision of transportation information and visitor orientation. Those needs were assessed here by an extensive review of planning documents – including General Management Plans and Strategic Plans – prepared by many of the eighteen National Parks of Massachusetts and partner facilities. Members of the management and interpretive staff of many of the Parks were also interviewed. Throughout this process, the individual needs of each park were elucidated, as were the overarching themes and characteristics that link the needs of the parks together.1 A design committee composed of NPS planners reviewed these themes and provided ongoing feedback throughout the development of this report.

***Trip-Planning Information***

In our interviews, almost every Park mentioned that visitors can encounter difficulty or frustration in getting to the Park. In large cities like Boston, parking is scarce and expensive, signage is inconsistent, and visitors may be under-informed about their options for taking public transportation or walking. Cape Cod National Seashore is an example of how more rural NPS areas can also suffer from traffic congestion and parking shortages, particularly in peak season. Moreover, these issues do not end when the visitor arrives. Providing better information about circulation within the Park was also mentioned as a common concern, as several Parks are made up of various facilities that are linked by walking trails, shuttle buses, and private automobiles.

Almost every NPS area we spoke to would also like to do a better job of providing visitors with relevant trip-related information beforehand – e.g., information on entrance fees, public restrooms, seasonal information, and special events. There is also a universal need to provide a range of information that matches visitors' varied demographics and personal interests: repeat visitors, local residents, subject-matter enthusiasts, non-English speaking tourists, schoolchildren, and other groups.

***Interpretation and Education***

Traveler information should be offered in such a way as to enhance the interpretative and educational experience for visitors. This includes facilitating educational programs for schoolchildren as well as providing interpretive information for other types of visitors. Pre-trip information can also be useful in letting visitors know more about the character of the NPS area itself, a common concern for the Parks that are marked by complex land ownership patterns (including Boston NHP, Lowell NHP, New Bedford NHP, Cape Cod NS, and Blackstone River Valley NHC). Additionally, the provision of traveler information could be an ideal way to offer additional interpretive information to visitors who would otherwise tend to arrive with little knowledge of the Park and its significance, to local residents who use the Park primarily for recreation, or indeed for those who cannot visit at all. Already, some Parks have begun using their websites to provide access to historic archives and other scholarly materials.

[1] See Appendices 1 and 2 for more detailed traveler information by NPS unit.

***Regional Coordination***

Most Parks also stressed the need to facilitate regional coordination. This includes promoting the NPS areas throughout Massachusetts as a coherent whole, as well as providing visitors with information on the specific linkages – thematic, historical, and geographic – among different Parks. A number of Parks (most notably Lowell NHP, New Bedford NHP, and Salem NHS) also work in close partnership with their host cities, so it is important that the provision of traveler information complement and reinforce these partnerships. Depending on the specific needs of the Park, traveler information can also be a useful way to promote cooperation with other nearby, non-NPS visitor attractions and with private commercial groups such as the Chamber of Commerce.

***Real-Time Visitor Information***

Real-time visitor information can also be provided through a variety of media, including websites, roadside message boards and radio broadcasts. Though only a few Parks currently provide any sort of real-time (i.e., constantly updated) information, many have expressed interest in providing updates on traffic conditions, parking availability, and visitor wait times. This information could both improve visitor satisfaction and mitigate some of the environmental problems associated with congestion. However, the benefits of real-time information must be balanced against the staff and resource costs of keeping the information current.

***Web Design Considerations***

The web-based components of a traveler information system (TIS) must conform to the Parks' Internet needs. We have learned that for many Parks, maintaining and updating the Park website is already a burden on staff time; the TIS should not add significantly to this burden. Moreover, different Parks have different preferences with regard to communication from the public, with some preferring e-mail and others preferring telephone calls and letters. The TIS must be flexible enough to accommodate these preferences. It must also take into account existing partnership arrangements and web presences. In all cases, the format of the information provided should comply with the requirements of the Americans with Disabilities Act and guidelines laid down by the Department of the Interior.

***Other Considerations***

Finally, the provision of traveler information must be sensitive to Park-specific needs. For example, some Parks would like to reinforce partnership arrangements, while others have an interest in raising the profile of resource conservation and "low-impact" visits. The Cape Cod National Seashore also has a unique constituency to address – people who live within its boundaries. Again, the mechanisms for providing traveler information must be flexible enough to accommodate each Park's needs while also providing a unified identity for the Massachusetts Parks as a whole.

# CHAPTER II. TRAVELER INFORMATION SYSTEM (TIS)

This report presents a conceptual design of one component of a regional traveler information system (TIS): the improved Internet-based provision of travel-related information. The TIS envisioned here would serve the interests of the eighteen National Parks of Massachusetts, the NPS-partner units in the region, and their visitors through the provision of improved Internet-based travel planning tools. A coordinated traveler information system would enhance visitors' capacity to obtain the information they need, plan their trips well, and benefit from the thematic links among the numerous Federal and non-Federal destinations in the region. Such an on-line system could (1) provide trip-planning information, (2) enhance visitors' interpretational and educational experiences, (3) facilitate regional coordination, (4) include real-time visitor information where appropriate, (5) meet the website needs of the parks, and (6) be sensitive to any special considerations of the individual parks.

As part of an enhanced Internet-based TIS, we are proposing a new National Parks of Massachusetts website that would (1) present the eighteen NPS units as a regional group of geographically and thematically linked visitor destinations, (2) assist the user in identifying parks and events that match his or her interests, and (3) facilitate travel planning based on the type of visitor or visitor group, available time, available/preferred modes of transportation, and any special circumstances.

***Background***

The National Parks of Massachusetts website concept described here addresses the needs and constraints conveyed by senior staff at each of the interviewed parks. Needs and constraints were identified through interviews with park superintendents, chiefs of interpretation, and other appropriate staff. A design committee comprised of selected staff members from the National Parks of Massachusetts took part in defining the direction and conclusions throughout this process. Interview findings were organized into the following categories:

- Provision of trip planning information
- Enhancement of visitors' interpretational and educational experiences
- Facilitation of regional coordination
- Provision of real-time information
- Park Internet constraints and needs
- Other special park considerations

The list of potential website features was presented to the project design committee on March 11, 2002, along with several approaches to designing the Internet-based component of the TIS. Website features were organized into the following categories:

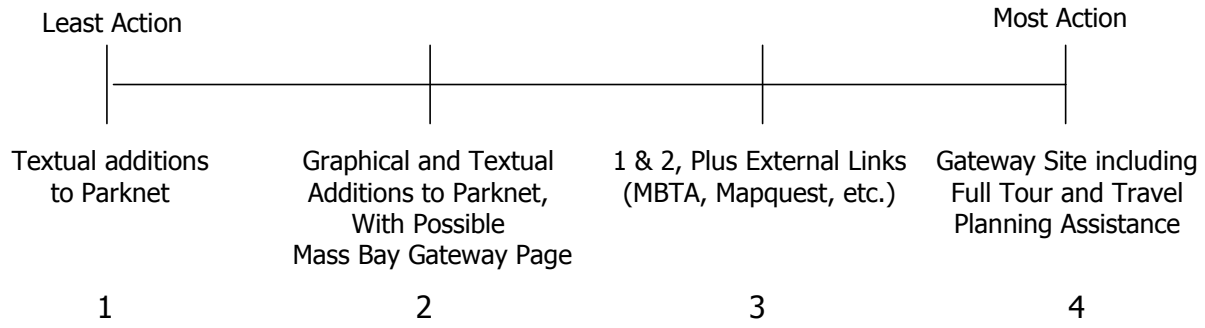
- **Introductory information -** Explanation of the relationships among the National Parks of Massachusetts and partner facilities, identifying the parks, themes, and locations.

- **Park information -** Necessary park information identified by the interview and analysis process.
- **Tour planning** - Listing of parks and park-sponsored events that meet user interests.
- **Travel-planning assistance** - Formulation of travel itineraries and directions for visits to user-selected parks, with assistance in selecting mode of transportation and finding other relevant information.
- **General site features** - Overall guidelines for website design.

Four alternative design approaches were presented to the design committee, along a continuum from "least action" to "most action" as shown in Figure 1. These approaches were:

1. Textual additions to *Parknet*
2. Graphical and textual additions to *Parknet*
3. The changes listed above with the addition of links to other Internet sites that can assist with trip planning, possibly including a National Parks of Massachusetts gateway page
4. A National Parks of Massachusetts gateway website, with full tour and trip planning assistance

Figure 1: MBP Website Design Alternatives




Discussion of the possible approaches with the design committee led to selection of alternative (4) with some possible features of alternative (3). Full tour and travel planning assistance is preferred. However, individual park information will still be based on *Parknet*. This approach will keep NPS staff from having to maintain and update two separate websites for each NPS facility. Instead, the jointly sponsored National Parks of Massachusetts site will utilize *Parknet* page information.

***Overall Website Structure***

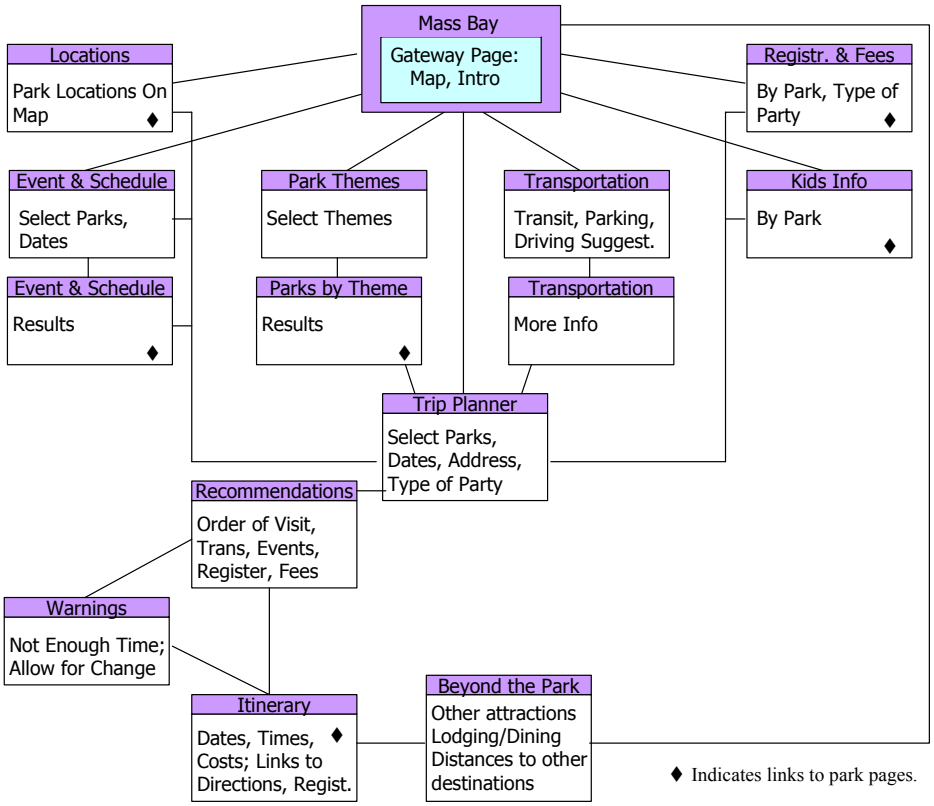
The National Parks of Massachusetts Internet site could have the following main components:

- Welcome page

- Database-generated overview pages (schedules, information for children, etc.)
- Tour planning assistance (selection of parks and events by interest)
- Trip planning assistance (itinerary and directions beyond the park)
- Links to individual park pages at all appropriate locations

The first four components will be hosted on the National Parks of Massachusetts website. The fifth – links to park pages – will send the user to the individual park pages on *Parknet*. As mentioned above, this feature will make it unnecessary to maintain separate pages in two different locations. Navigation to *Parknet* pages can be achieved in two ways: (1) direct downloading of the appropriate park page, with a visible link on each park page enabling the

Figure 2: Mass Bay Website Structure




user to return to the National Parks of Massachusetts site, or (2) downloading of the appropriate page into a new browser, thus enabling the user to return to the same location in the National Parks of Massachusetts site by re-selecting the first browser window. Figure 2 presents this site structure visually.

***Updates to Parknet***

The National Parks of Massachusetts website should include the items summarized above. However, these items will not all reside on the National Parks of Massachusetts website. The website will be complemented by park pages on *Parknet*. Some updating of *Parknet* pages will

be required in order to include all of the identified features in the system. Suggested updates include the following:[1]

- Description of park facilities and grounds – Provide in-depth information for each park, especially on conditions important for trip planning. Items to include are: location of each building and site within the park; amount of walking, hiking, or climbing required; accommodations for those not able to perform required walking or those with other special needs; availability of food, drink, and restrooms; and extent of shelter provided at park trolley or shuttle stops, where relevant.
- Things to do – Locations and times of tours and activities for different age and interest groups.
- Visitor Center information – Uniform information on the location, hours of operation, and features of park visitor centers.
- Volunteer opportunities – Uniform information on volunteer opportunities at each park.
- Resource conservation efforts – Describe resource conservation efforts and how they relate to the park's mission.
- Entrance fees – Up-to-date information on entrance fees to parks and associated sites.
- Park shuttles and trolleys – Schedules, costs, and routes of transportation services.
- Information for special groups – Specific information for planning tour group, school group, or other large group visits.
- Gift store – Hours of operation, types of merchandise, and location.
- Special events and activities – Maintain an updated schedule of all relevant special events and activities.

***Features of the National Parks of Massachusetts Website***

The National Parks of Massachusetts website should have upfront information letting the user know what the site is about and why he or she should explore it. This category could include the following:

- Presentation of the 18 National Parks of Massachusetts as a group of sites that together offer access to some of the chief historical and cultural landmarks of Massachusetts.
- Regional map
- Park names
- Park locations
- Park themes

Some of this information will be on the homepage. However, in order to make the homepage

[1] Note: Additional updates may become necessary at later stages.

effective and keep it from being intimidating, some introductory information could be provided on additional pages.

Visual Depictions 1 and 2 provide examples of how some of this information might be organized (all Visual Depictions are listed in Appendix 3). Depiction 1, the homepage, includes introductory text, a regional map, and possible site navigation buttons. Depiction 2 is an example of a more in-depth introductory information page, in this case showing park locations on a more detailed regional map. The maps on these pages are simple examples of those that could ultimately reside on the National Parks of Massachusetts site. Final map selection should be based on desired functionality and look. For example, a simplified or cartoon-type map would have a welcoming and friendly feel, while a detailed digital map could allow the user to zoom in and out. Additional introductory pages could present park names and themes, and other information deemed appropriate.

As mentioned at the beginning of this section, according to this concept plan park information would be hosted primarily on individual park pages, and not on the National Parks of Massachusetts website. Links to individual park pages would be provided at appropriate locations within the site. However, selected park information should be stored in a database, and retrieved to support National Parks of Massachusetts website user queries. This information should include, but not be limited to, the following:

- Park-sponsored special events and activities
- Park tour schedule
- Seasonal and weekly closures and restrictions
- Entrance fee information
- Registration requirements by type of visitor party
- Contact information
- Information for children

The first item, special event information, appears to reside on a *Parknet* database and is, thus, easily retrievable for National Parks of Massachusetts website purposes. The rest of the information is provided in a less uniform manner on at least some of the park pages. Some of this information could be solicited directly from park staff in order to construct the website database. Implementation of the *Parknet* updates recommended above may facilitate collection and updating of this data, in particular if such updates are made through the use of a database.

With this park information residing in a database, the National Parks of Massachusetts website could present it to the user in a variety of formats. For example, some pages could present selected components of the dataset, such as contact information and information for children. The user would be able to navigate to these pages directly at any time by selecting them from the navigation bar. Another presentation format could be tailored further to individual user preferences. For example, the user could navigate to a query page, select from a list of parks, and then view the desired information for the selected park(s). The first approach is more suitable for general and mostly unchanging information, while the second approach is better for more in-depth and/or time-dependent data.

Visual Depictions 3 and 4 provide examples of how the National Parks of Massachusetts website could be used to retrieve information, in this case on schedules and events, and view it in a useful format. Depiction 3 allows the user to select the parks he or she is interested in. Additional inputs could be specific dates and/or times. Depiction 4 shows an example of the results of such a query. The page lists hours of operation, recommended visit length, and special events at each of the selected parks.

One of the central features of the National Parks of Massachusetts website could be the ability to assist the user in identifying the parks and activities that match his or her interests.[2] Tour planning assistance could take various forms, and many of the items that make up the other website categories should be considered a part of this capability. For example, accessing information about park landmarks, tours, locations, and activities would assist the user in selecting from among the parks. However, the website should include an additional tool specifically designed to help potential visitors select their destination(s) – them-based park groupings. The National Parks of Massachusetts represent several historical and cultural themes in US history, and many visitors to the region would benefit from identifying parks that match their specific historical and/or cultural interests (e.g. the Revolutionary War, presidential history, maritime history, the Industrial Revolution, etc).

Visual Depictions 5 and 6 provide examples of how theme-based information could be used to assist National Parks of Massachusetts website users. In Depiction 5, the user selects themes from a given list that represent all the Massachusetts parks. In Depiction 6 illustrates how the theme information could be organized. In this depiction, a table lists the parks vertically and the themes horizontally, with selected cells indicating the themes represented by each park. In the actual website, a by-theme list or some other format may be preferable and more attractive than such a table; the table, however, is a convenient tool for depicting the type of information that would be offered to the user.

After a site user has had a chance to decide which park(s) he or she would like to visit (whether through use of the National Parks of Massachusetts site or via some other means), the remaining task is to plan the trip. National Park service staff would like the website to assist potential visitors with this task. Trip planning can be assisted through provision of the following:

- Travel tips
- Itinerary
- Directions
- Route maps
- Traffic, parking, and walking information
- Party-specific information (such as for children, tour groups, etc.)
- Additional park-specific information

[2] Park staff expressed interest in providing information to those not able to travel to the parks in person. Tour planning capability would be helpful to such site visitors as well, assisting them in identifying parks that match their interests so they can look up information more efficiently.

Travel tips can include general suggestions and notifications. For example, the site user should be notified when certain modes of transportation present particular challenges or benefits for visiting specific parks. Similarly, the site should let users know of parks that are within walking distance of one another. Visual Depiction 7 lists sample travel tips regarding transit and trolley access to selected parks.

The remaining trip planning items listed above can all be provided through a site-based trip planner. The trip planner should directly help the site user plan a visit to the National Parks of Massachusetts by constructing an itinerary and providing additional necessary information. When constructing the itinerary, the Trip Planner should guide the user in selecting an appropriate park or group of parks, based on his or her time and travel mode constraints. A full itinerary should include starting times, distances, and durations for each travel segment of a trip, and the suggested amount of time to spend at each park. In addition, any fares and/or reservation requirements associated with trip segments, parking, or park visits should be listed. Finally, the itinerary could provide access to travel directions.

Visual Depictions 8 through 12 illustrate selected features of such a trip planner. In Depiction 8, the user can select from the list of parks, and specify starting and ending times, starting and ending addresses, and type of party.[3] Depiction 9 is an example of intermediate Trip Planner feedback, suggesting a park order for a multi-park visit and notifying the user of special traffic, event, fee, and registration information. Depiction 10 is also an example of intermediate trip planner feedback; this page depicts a warning generated by the user's previous choices – that too many parks have been selected for the specified timeframe. Depiction 11 shows an example of an itinerary, with starting times, trip segment lengths and durations, park visit durations, and associated costs. Highlighted items on this page indicate links to further information, in this case travel directions and park Internet pages. Depiction 12 shows sample directions with accompanying maps.

The trip planning section of the National Parks of Massachusetts website could be an appropriate location for links to other components of the regional TIS. For example, the travel tips or itinerary pages could alert users to any signage and/or real-time travel information sources that could be helpful during their visit. These resources include road signs, park-sponsored dynamic message signs, travel radio stations, and other regional radio-, telephone- and/or Internet-based services.

Many visitors to National Parks of Massachusetts require information about aspects of their trip that are not met directly by the parks. This type of information includes the following:

- Dining options
- Lodging options
- Non-park facilities/activities in the area

[3] User selection from among type of party options would enable the National Parks of Massachusetts website to provide any special information that would assist the visitor at particular parks. For example, a tour group may require different parking information than smaller visitor parties, and a family party could be notified of special information about children's activities and/or possible accessibility arrangements.

- Distance and travel time to other destinations

Since the National Parks of Massachusetts are a part of the U.S. Department of Interior, it is somewhat complicated to provide information about non-government institutions, particularly those in the private sector. In addition, park staff do not have the time and resources required to gather and provide thorough information of this kind. However, since many potential visitors require this type of information, a middle-of-the-road approach is advisable. The National Parks of Massachusetts website could facilitate locating this information by providing links to appropriate Internet sites. The exact extent and presentation format for this information is yet to be determined. However, discussions so far suggest that links to a combination of publicly sponsored tourist websites and regional business listings applicable to each park's vicinity could be provided. Visual Depiction 13 is an example of a page with such links.

Several features of the National Parks of Massachusetts website could be of a more general nature than the rest. For example, the entire site will have to conform to Federal Government, Department of Interior, and National Park Service Internet guidelines. The specific required guidelines, which include conformity to the Americans with Disabilities Act, will be identified at a later stage.

***Homepage Samples***

The Visual Depictions referenced here – 1 through 13 – indicate the types of information and functionality that could be presented on National Parks of Massachusetts website pages, but are not meant to suggest how the site should look. The look and design of the homepage is particularly important. In addition to communicating the bigger picture to the user, the homepage must also be attractive and functional, and appear user-friendly. Homepage Samples 1-3 (included in Appendix 3) are examples of what the National Parks of Massachusetts website could look like. The final design will be developed when the website is created, but these samples can serve as a starting point for considering the content and layout of the homepage, as well as the look and feel of the site as a whole.

The homepage samples include a small map of the National Parks of Massachusetts, links to the rest of the website, a starting point for the trip planner, and a park photograph. The photograph can be programmed to change each time the page is opened, as well as in response to placing the pointer over a location on the map. This will give the site a more sophisticated feel, and make it more interactive with the user. In Sample 1, a different description or quotation can accompany each photograph, while in Sample 1 the photograph and map are larger and there is no accompanying quotation. The design of Sample 3 has a window within the homepage that could display selected information from other sections of the site, such as *What's New* and *Contact Information*, in response to placing the pointer over the desired section title.

***Park Partner Information***

Some of the National Parks of Massachusetts have important relationships with non-NPS destinations and institutions. For example, the sites along the Freedom Trail are not all operated by the NPS. Furthermore, the park facilities operated by the City of Boston and the Commonwealth of Massachusetts are important partners for the National Parks of Massachusetts. At the same time, information about non-NPS sites can be essential to potential visitors. Such information includes hours of operation, entrance fees, event schedules, etc. Because this

information does not originate with the parks, a separate process must be created to place it on the website.

There are several approaches to update non-NPS information on the National Parks of Massachusetts website. One approach is for park staff to simply gather the relevant information periodically, and enter it into the site. This process would tax park staff time heavily, however, and would likely be carried out inconsistently across time and across parks.

A second approach is to have staff at the non-NPS sites themselves enter the data into the website. A password system can be developed to enable safe access to selected individuals. An understanding would have to be reached with the relevant institutions about their commitment to update the information.

A third option – user-managed capability – would combine the password approach with an additional step in which selected NPS staff would be required to approve any information updates. For example, each initiated update would produce and send an email with the content of the change to the selected NPS staff, and enable them to accept or reject the update.

Other approaches are possible. The selected procedure will have to be efficient and adhere to Federal government and DOI information security requirements.

***Website Partners***

Some of the Internet capability would most effectively and efficiently be borrowed from outside websites. In particular, direction-generating software would be enormously complex and expensive to develop and already exists for Massachusetts.

Driving directions, online mapping, and direction-generation can be provided quickly and in great detail for all parts of the country. National Parks of Massachusetts website visitors are likely to be familiar with these websites. For an annual fee, the National Parks of Massachusetts could use one of these online mapping companies. Such a partnership would allow website users to enter information within the National Parks of Massachusetts site and, through links, view the directions generated at the commercial mapping site.

Transit agencies are increasingly entering the route-planning world. The Massachusetts Bay Transportation Authority (MBTA), which operates public transportation in and around Boston, has added route planning capability to their website. MBTA information technology and website representatives have expressed willingness to collaborate with National Parks of Massachusetts. In the short run, the MBTA has included in their route planner a list of all area NPS sites and partner sites within walking distance of a public transit station, enabling the user to easily obtain directions without knowing a site's full name or address. In the long run, the MBTA would be willing to explore ways of developing a direct link between their website and the National Parks of Massachusetts site, for automated direction-generating capability similar to that possible with commercial mapping websites.

***Next Steps***

Advancement of the concept will require further discussion with regional and Headquarters NPS staff, discussion and arrangements with the NPS webmaster, and completion of a more detailed

functional requirements document. In addition, some coordination may be necessary with outside stakeholders, such as those that could have a presence on the site's Beyond the Park pages and/or provide links to the National Parks of Massachusetts site on their web pages.

*National Parks of Massachusetts TIS Website Costs*

Several options for the development of the website have been studied. Based on feedback from website designers who have extensive experience with travel and trip planning website programming, the two-phase approach described below is recommended. A cost estimate for each phase was made, as specified below.

*Discovery and Design*

Building on this completed concept design, the discovery and design phase will include definition and documentation of the information required for the website, and a comprehensive site design. Site design will include overall site structure, graphics design, development of the data model and programming specifications, and specification of software requirements and deployment plans. This phase is estimated to require a budget of $70,000.

*Development and Implementation*

This phase will build on the Discovery and Design phase, and include site development and testing, deployment, documentation, and necessary stakeholder training. Development and Implementation are currently estimated to require a budget of $200,000, although the process of Discovery and Design will allow for a much more exact estimate.

We would also recommend someone to work with the 18 park units to gather the detailed park information and to develop the "theme" material linking different parks. We estimate this cost to be $30,000 if done by either the National Park Service or an outside consultant.

After implementation, the new website will require regular maintenance and updates. The cost of basic maintenance is estimated at $10,000 per year, but may vary depending on the final software choices and site location (i.e. the server and network environment).

## CHAPTER III. NPS ORIENTATION AND TRANSPORTATION FACILITIES - ALTERNATIVES AND CONSIDERATIONS

The previous section described concepts for an advanced traveler information system for visitors to the National Parks of Massachusetts. The following section looks at options for providing visitor orientation through a centralized orientation center and transportation hub in downtown Boston. These two approaches are not intended to be mutually exclusive, but rather complementary ways of providing orientation and travel-planning services.

The plans for a network of transportation and orientation centers in Boston began with the development of a set of objectives. Interviews with NPS staff, a study of transportation hubs in other cities, and discussions with potential project partners helped to inform this analysis. A range of locations in central Boston was identified and a set of criteria were developed by which the suitability of each location could be measured. Each site was then analyzed according to those criteria, which included size and layout, transportation potential, planning and zoning restrictions, and other considerations.

The components of an orientation center and transportation network could take a number of forms, ranging from a small satellite station or network of such stations, to a large orientation center operated in partnership with a public tourism entity. One prominent partnership opportunity is with the Boston Museum Project's planned museum in downtown Boston. Any or all of the facilities proposed here could be implemented jointly, in succession, or by themselves, and together they would make up a comprehensive system of traveler information. This section of the report:

- Presents background research on other cities' approaches to providing visitor orientation.
- Sets out the main concepts of operation for a transportation hub in Boston.
- Analyzes potential sites in the downtown area on the basis of their transportation accessibility, build-out potential, zoning, and other relevant criteria.
- Highlights those sites that would best fit these criteria and thus merit further consideration.

***Background Research on Visitor Orientation Centers***

To inform our study of potential concepts for an enhanced system of visitor orientation facilities in Boston, the Volpe Center team first conducted research on other visitor centers in the United States and Europe. These centers vary considerably in the scope of their operations, as well as in their management and partnership arrangements. Nonetheless, some themes did emerge, and this section briefly outlines the findings from this research. Particular attention is paid to Savannah, Georgia, as a well-known example of a visitor center serving as a transportation hub, and to Philadelphia, where the NPS has a similar downtown presence as it does in Boston.

*Savannah, Georgia*

Savannah's former Central Railroad station is now home to both the Savannah History Museum and the Savannah Visitor Center. While not formally affiliated with each other, the museum and

visitor center sit back-to-back in converted space within the old station. This site is of historic interest itself and is located 10 to 15 minutes' walk from the main historic district, with a free shuttle bus (operated by the local transit authority) also available.

The visitor center is located near the main road into Savannah, and since parking in the historic district itself is quite scarce, many visitors choose to park at the visitor center instead. In fact the center serves as something of a tourist transportation hub: the city leases operating "slots" in the parking lot to the various tour companies. As a result, most (though not all) organized tours – whether by bus, trolley, horse-drawn carriage, or on foot – depart from the visitor center.
The visitor center offers information on attractions throughout Savannah and the surrounding Chatham County. It also provides information on dining and accommodation options, although visitors must make their own bookings, either on their own or though a system of on-site courtesy phones. The center also provides updates on special events, construction, and closings.

*Philadelphia, Pennsylvania*
Philadelphia also presents some parallels to the Boston situation. The Independence Visitor Center serves as both the main point of orientation for an urban National Historical Park as well as a source of information for the entire surrounding city and region. The center itself is run by a non-profit organization acting in partnership with the National Park Service, the Greater Philadelphia Tourism Marketing Corporation, the Philadelphia Convention and Visitors Bureau, the City of Philadelphia, and the Commonwealth of Pennsylvania.

The center offers information on Independence National Historical Park, which is located across the street from the center, and on other visitor attractions throughout the region, including an updated listing of daily events. It makes use of NPS exhibit displays, interactive computer kiosks, and films to provide a mix of orientation and interpretive information. An on-site reservation service allows visitors to make bookings for hotels, restaurants, and local attractions. The center also features a coffee bar, gift-shop, function space, public toilets, and access to an underground parking garage. The center has a large desk staffed by NPS and other sponsoring agencies.

*Other Cities Studied – Baltimore, Belfast, Chicago, London, Paris, Natchez, San Diego*
While each city's approach is slightly different, almost all visitor centers offer the same core set of services: information on local attractions, special events, transportation, lodging, and dining. In some cases, bookings for accommodation, dining, shows, and tours can be booked directly through the visitor center, while in other cases visitors are left to do this on their own. In addition to logistical information, some visitor centers (e.g. San Diego, Chicago, Natchez) offer more detailed exhibits on local history and culture. (As mentioned above, Savannah takes this one step further with an entire history museum co-located at the site.)

The range of other tourist services provided varies from place to place, presumably due to institutional and financial considerations. The Belfast visitor center, for example, is equipped to book entire vacations throughout the UK and Ireland and offers a left-luggage facility, foreign currency exchange, and an Internet café, while other centers (e.g. Paris) are limited more to core visitor information. Many of the centers also have some sort of bookshop or souvenir shop, particularly those in larger US cities.

The actual number of information centers seems to vary quite a bit. San Diego, for instance, has one central visitor center while London has no fewer than 18 official tourist information centers scattered across the city. The centers' Internet sites also vary, with some having only a minimal Internet presence – a simple homepage listing hours and locations – and others providing detailed information about the city. San Diego's website, for example, even has a link that allows the user to book local accommodation directly over the web.

***Concepts and Objectives***

As mentioned above, the National Park Service's plans for a visitor orientation center comprise a range of options – different partnership opportunities, various geographic locations around Boston, and different ideas about the range of visitor services to be offered. Again, these options could be implemented individually or in concert. This section examines these factors and lays out four main conceptual plans for the orientation center, as well as the space requirements needed for each. The four scenarios are as follows:

1. An NPS regional orientation center located in Boston, managed by the NPS in concert with other partners and providing information focused on NPS facilities. Depending on the amount of available space, the following configurations would be possible:

   - A small *satellite* office to provide information on regional NPS facilities and basic orientation services.
   - With more space available, a *basic* NPS orientation center could provide information and orientation services, plus some level of visitor amenities, such as public restrooms.
   - An *expanded* NPS orientation center could provide orientation services and visitor amenities, as well as a range of additional services such as a shop, restaurant, interpretive exhibits, and multimedia resources.

2. An NPS regional orientation center in partnership with a publicly sponsored tourism agency providing information and services that also include ticketing and reservations for commercial establishments, such as restaurants and lodging.

3. An NPS regional orientation center operated in partnership with a major cultural institution like the Boston Museum, providing information on NPS facilities as well as on cultural and historic sites more generally, and participating with the Boston Museum in activities and programs to be determined.

4. An NPS regional orientation center operated in partnership with both a major cultural institution – like the Boston Museum – and a publicly sponsored tourism agency, combining elements of scenarios 2 and 3 to provide information on NPS areas, cultural and historic sites, and commercial establishments.

*Scenario 1*

In this scenario, the center would be operated by the National Park Service in concert with other partners and would focus on the core mission of providing orientation services for the NPS sites

in Massachusetts. The physical site of the new center would be such that it would enjoy a higher profile among visitors and would, space permitting, be able to offer a broader range of services than can be accommodated at the existing 15 State Street visitor center. Its main goals would be to provide a central, high profile, and visitor-friendly introduction to the NPS resources in Massachusetts.

Regardless of the size of the orientation center, it would be designed to serve the following objectives:

- Create a physical focal point to highlight the regional NPS historic and cultural resources.
- Increase public awareness of and access to the National Park Service, its facilities and related sites in the Massachusetts, and current events and activities.
- Provide the tourists and residents of Greater Boston with a central facility for planning their visits to National Park Service sites and affiliated properties.
- Provide thematically and/or geographically linked tours of NPS and related sites, tailored to individual interests and resources.
- Provide both trip planning information and interpretive material to support the tours.

Space permitting, the following objectives could also be supported:

- Provide centralized booking and tickets for all regional NPS and related sites where advance arrangements are required.
- Provide a retail outlet for NPS and related sites.
- Provide areas for ancillary visitor services, such as refreshments, public restrooms, and Internet access.

These objectives could all be met at the Faneuil Hall site.

Space requirements: While there are no firm minimum or maximum sizes, the range of visitor services to be offered will depend in large part on the available square footage. As a comparison, the Baltimore visitor center is housed in a small trailer-like building of perhaps 500-600 square feet. A similarly small – but highly visible – site would allow the NPS to achieve many of the above objectives with a satellite center. The addition of progressively more space would allow for a broader range of interpretive services, bookings, orientation films, exhibit space, retail areas, and other amenities.

*Scenario 2*

A partnership with a tourism agency like the Greater Boston Convention and Visitors Bureau would allow the visitor center to go beyond providing information primarily on the NPS and other non-profit cultural institutions. Besides the additional financial resources and political support that such a partnership might offer, this approach has the advantage of allowing visitors to receive information on a wide range of commercial services. The experience of some other

cities has shown that tourists often view their trip as a "package" and appreciate being able to obtain information on dining and lodging along with visitor attractions. Thus, in this scenario, the visitor orientation center would focus on the following goals:

- Create a physical focal point to showcase the greater Boston and NPS historic, cultural, and hospitality offerings.
- Increase public awareness of and access to the National Parks of Massachusetts and related sites in the region, current events, and activities available.
- Increase tourists' and residents' awareness of and access to Boston's rich array of historic, cultural, educational, entertainment, and other hospitality resources.
- Provide the tourists and residents of Greater Boston with a central facility for planning their visits to National Park Service sites and affiliated properties, including maps, interpretive materials, and personal services.

Provide residents and tourists with a central integrated facility for planning their time in the Boston area, including:

- Thematically and/or geographically linked tours of NPS and related sites, tailored to the individual visitor's interests and resources.
- Trip planning information and interpretive material.
- Centralized booking and tickets for all regional NPS and related sites where advance arrangements are required.
- Provide a retail outlet for NPS, related sites and other sanctioned commercial and non-profit Boston enterprises.
- Provide areas for ancillary visitor services, such as refreshments, public restrooms, and Internet access.
- Provide galleries and exhibition areas that could highlight locations, themes, and events in Massachusetts.

Space requirements will vary based on the nature of the relationship between NPS and other partners, as well as the range of services to be offered. By way of comparison, Philadelphia's new Independence Visitor Center (also a partnership effort between the NPS and local authorities) contains about 50,000 square feet of space. This includes orientation services, historical exhibits and interpretive information, a shop, a café, and about 5,000 square feet of function space.

*Scenario 3*

The Boston Museum Project, a non-profit collaborative working to establish a Boston museum, has also identified the need to create a more high profile, central visitor orientation center in Boston. A partnership between NPS and a cultural institution like the Boston Museum Project would allow the two organizations to join forces to provide information on Boston's array of cultural and historic sites. The NPS visitor center could be co-located on the site and operated jointly. Alternatively, some of the objectives of the such a partnership could be met by making

use of the space available at Faneuil Hall. As in Scenario 1, the visitor center envisioned in this scenario would orient visitors to Boston and provide information on the NPS sites in the region as well as the range of other non-profit and public sector cultural resources in the region. Information on commercial establishments could be handled on-site or elsewhere.

Overall, the facility housing both a major cultural institution and an NPS orientation facility would pursue the following objectives:

- Serve as a first point of contact for Boston's range of cultural and historic sites.
- Create a physical focal point to highlight the historic and cultural resources of the National Parks of Massachusetts.
- Allow visitors to expand their interpretive experience by planning visits to the NPS (and other) historic and cultural sites featured in the on-site exhibits.
- Increase public awareness of and access to the National Parks of Massachusetts and related sites in the region, current events, and activities available.
- Provide the tourists and residents of Greater Boston with a central facility for planning their visits to National Park Service sites and affiliated properties, including maps, interpretive materials, and personal services.
- Provide thematically and/or geographically linked tours of NPS and related sites, tailored to the individual visitor's interests and resources; provide both trip planning information and interpretive material to support the tours.
- Provide centralized booking and tickets for all regional NPS and related sites where advance arrangements are required.
- Provide a retail outlet for NPS, for the partnering institution(s), and for related sites.
- Provide space for ancillary visitor services, such as refreshments, public restrooms, and Internet access.

Space requirements: The Museum Project estimates that it will require approximately 200,000 square feet. This includes space for an orientation center, restaurant, shop, function space, as well as space for exhibits and galleries. The amount of space provided for the orientation center itself will vary based on arrangements between NPS and a cultural institution like the Boston Museum.

*Scenario 4*

This scenario is essentially a hybrid of Scenarios 2 and 3 – that is, working jointly with a cultural institution and the City of Boston. In this case, the information services offered would allow visitors to obtain information on every aspect of their trip, including commercial facilities and services.

The center would thus serve triple duty: a welcome and orientation point for a cultural institution like the Boston Museum, for the City of Boston and its institutions, and for the Park Service and its facilities throughout Massachusetts. Its objectives would be as follows:

- Serve as a first point of contact for Boston's range of cultural institutions.
- Create a physical focal point to showcase Boston and the historic, cultural, and hospitality resources of the region.
- Increase public awareness of and access to the National Parks of Massachusetts and related sites in the region, current events, and activities available.
- Allow visitors to expand their interpretive experience by planning visits to the NPS (and other) historic and cultural sites featured in the on-site exhibits.
- Increase tourists' and residents' awareness of and access to Boston's rich array of historic, cultural, educational, entertainment, and other hospitality resources.
- Provide the tourists and residents of Greater Boston with a central facility for planning their visits to National Park Service sites and affiliated properties, including maps, interpretive materials, and personal services.
- Provide residents and tourists with a central integrated facility for planning their time in the Boston area.
- Thematically and/or geographically linked tours of NPS and related sites, tailored to the individual visitor's interests and resources.
- Trip planning information and interpretive material.
- Centralized booking and tickets for all regional NPS and related sites where advance arrangements are required.
- Provide a retail outlet for NPS, the partnering institution, related sites (i.e., sweatshirts, mugs, postcards, books), and other sanctioned commercial and non-profit Boston enterprises.
- Provide space for ancillary visitor services, such as refreshment (cafés and restaurants), public restrooms, and Internet access.

Space requirements: The Boston Museum Project estimates that it would require approximately 200,000 square feet. This includes space for an orientation center, restaurant, shop, function space, as well as space for exhibits and galleries. The amount of space allocated to the orientation center will vary based on arrangements between NPS and its potential partners.

***Orientation Center: Site Analysis***

An expanded, consolidated National Park Service orientation center would be able to serve not only as a central access point to NPS facilities and services, but also as a transportation hub. The center would be constrained by its location, and, to that end, an analysis was undertaken to evaluate candidate sites for their suitability.

The analysis described in this section is preliminary only; it results from field visits, interviews with relevant agency officials, and planning and statistical research. It does not take detailed account of land ownership, cost or logistical complexity (although these are speculated upon), the political environment, or the preferences of external governments or other outside agencies, except for the designated uses of the various Surface Artery land parcels. General zoning

concerns were also considered, as was the visitor experience.

*Description of Methodology and Evaluation Criteria*

The transportation analysis evaluated each candidate site according to criteria that span several different categories, described below.

| Category | Evaluation Criteria |
|---|---|
| Site analysis | What is the location of the site, and what are its general characteristics? Is it close to other attractions? Are there obvious physical restrictions on the site? |
| Pedestrian access | Do pedestrians easily and safely access the site? What pedestrian amenities (benches, lighting, landscaping) exist? What potential is there to improve access or to add amenities? |
| Public-transit access | Is there convenient transit access to the site (by ferry, rail, or bus)? Do transit amenities (stations, loading platforms/areas) exist? If not, can access be improved and amenities added? |
| Automobile and bus access | Is the site conveniently accessed by automobile from local streets and from major thoroughfares? Is there parking nearby? Can tour and school buses easily access the site? Is there the potential for bus loading/unloading areas, for park-and-rides, for kiss-and-rides? What is the nearby traffic situation? |
| Transportation data analysis results | What are traffic and pedestrian flows like in the area? How many subway and ferry passengers are in the area, and how many transit and ferry stations are nearby? How many parking spaces, hotel rooms, and major attractions are within walking distance? |
| Buildout potential | How much could be built on the site? Are there likely to be unusual cost or engineering constraints specific to this site; is it immediately obvious that building there would be infeasible? What is the potential aesthetic impact of full buildout? |
| Visitor experience | Is it likely that visitors will enjoy accessing this site? Does it link well with other NPS sites? What is the interpretive potential? |
| Other studies/plans | Have any other agencies or groups studied this site or proposed any specific uses for it? |
| Scenario match up | Is it likely that this site could host one or more of the scenario concepts described earlier in this report? |

*The Characteristics of the Ideal Site*

Each category of criteria was evaluated not only for the "NPS only" orientation-center concept, but also for each of the other concepts of operation described earlier in this report.

| Category | Characteristics |
|---|---|
| Site analysis | Well-located, close to other attractions, no major physical restrictions. |
| Pedestrian access | Access is convenient and safe, and amenities are provided (or, at least, that access can be made convenient and safe, and amenities can be provided). |
| Public-transit access | Transit access is either convenient or can be made convenient. |
| Automobile and bus access | Tour and school bus access should be convenient, ideally with bus loading/unloading areas. Site location should not be inconvenient for drivers and should not cause traffic tie-ups. Convenient access by private automobile is not necessarily a high priority. |
| Transportation data analysis results | Location is near major attractions, convenient to parking, ferry, and transit facilities, and within walking distance of hotels. High pedestrian flows and proximity to Freedom Trail are also desirable. |
| Buildout potential | Site should support full buildout of at least one of the four concepts of operation. No immediate building disqualifications should be present. |
| Visitor experience | Positive visitor experience enabled by convenient access. Strong links with historic downtown Boston, including the Freedom Trail, and with the waterfront. |
| Other studies/plans | Other studies may be helpful; could lead to partnerships with groups that concur on site use. |
| Scenario match up | The site should support full buildout of at least one of the possible concepts of operation. |
| Summary | Advantages outweigh disadvantages; this site's evaluation is superior to other sites'. |

*Site Summary*

Ten sites were selected for preliminary analysis – six of the numbered Surface Artery parcels, and four other locations. Each site was evaluated against the criteria presented above.

**Green and Blue Stars – All Analyzed Sites**
**Blue Stars – "Best Fit" Sites**

The ten sites selected were:

- Parcel 6. The northernmost site, close to the North End.
- Faneuil Hall. The historic building just west of Quincy Market.
- Parcel 7. Adjacent to the Haymarket area.
- Parcel 12. North of Quincy Market.
- Parcel 14. Just north of State Street.
- Parcel 15. Just south of State Street.
- Parcel 18. The southernmost site.
- 200 State Street. Just east of Quincy Market.
- Atlantic Avenue Garage. Just southeast of Parcel 15.
- City Hall Plaza. Adjacent to the Government Center area.

The overview map above shows the location of each of these ten sites, as well as the Freedom Trail and several other Boston landmarks. Five of the sites – Parcels 6, 14, and 15, City Hall Plaza and Faneuil Hall – emerged as subjects of more serious interest and are marked with large stars; the other five sites (Parcels 7, 12, and 18, 200 State Street, and the Atlantic Avenue Garage) came out as secondary contenders and are marked with somewhat smaller stars of a different color. The reasons for this classification will be discussed below.

*Site Analysis*

Each site was evaluated on its own; characteristics, corresponding to the evaluation criteria, were noted. A comparative analysis was then undertaken to determine which site(s) best fit the various criteria in order that recommendations could be provided. These "best fits" are discussed in the next section. This section presents an overview of the individual site analyses that formed the backbone of the site comparison.

*Faneuil Hall.* One of the most historic buildings in Boston, Faneuil Hall is the centerpiece of

Quincy Market and adjacent to Government Center. A prime tourist attraction, on the Freedom Trail, and close to the downtown business area, its surroundings are heavily saturated with pedestrians, and several transit stations are in the immediate area. Nearby streets are congested, although several parking garages are close by. Because it has a very high degree of recognition, Faneuil Hall offers the potential of a meaningful visitor experience. Handicapped accessibility and the provision of restrooms are currently being addressed.

*Parcel 6.* Near the North End and the Haymarket area, Parcel 6 sits atop a series of on- and off-ramps leading to the depressed Central Artery (still under construction). Near the Freedom Trail, pedestrian circulation is currently being disrupted by ongoing Artery construction. There is potential to create walking routes to connect Quincy Market, City Hall, the Haymarket area and the North End. Several transit stations (Haymarket, North Station, Government Center) are nearby; there is the possibility of linking this site with the existing MBTA intermodal station at Haymarket. There are two parking garages next to the parcel, which will allow for car access, although it is limited during the workweek. There is also potential for bus or shuttle drop-off and pick-up areas. The criteria for this site call for community space, which could be incorporated into an institution like the Museum. The Freedom Trail, Faneuil Hall, and the Paul Revere House are nearby, and the Boston Harbor Islands ferry docks are within walking distance; coupled with proximity to the Boston African-American National Historic Site, this parcel could be used to create thematic connections between several NPS elements. There is growing stakeholder support for this site for a combined Boston Museum and NPS Orientation Center.

*Parcel 7*. Adjacent to the Haymarket transit station and parking garage, part of Parcel 7 is being used for Central Artery ventilation buildings, and so only about 5000 square feet (at ground level) is available for construction. But Haymarket is a major transit access point for the Green and Orange Lines and for multiple bus routes; the transportation-hub possibilities are considerable. The area is, however, congested, especially when the nearby fruit and vegetable stands are operating on weekends. The opening of new on- and off-ramps to the underground Artery will likely increase congestion.

*Parcel 12.* Also a parcel atop Central Artery ramps zoned for development, Parcel 12 is just north of Quincy Market, near some of the well-traveled tourist routes in the area. Automobile traffic is very heavy in the area, which puts off pedestrians, but there could be potential to make the site more accessible. Several transit stations are within close walking distance, as is a parking garage. The site is large enough to support some of the larger building scenarios, although the ramps would make construction complex. Not directly on the Freedom Trail, but close and near to the ferry docks. Other studies have called for a “mixed-use development” on this parcel.

*Parcel 14.* Bounded on the west side by the east end of the Quincy Market area and on the south by the heavily pedestrian-traveled State Street, this site is well positioned between downtown and the waterfront. Large numbers of pedestrians pass by this site on their way to the Aquarium and to ferry services at Long Wharf (just to the east). The Aquarium and State Street T stations are in the immediate vicinity. The Parcel 14 site is ideal for a smaller scale visitor contact station, one that could serve as a gateway to the Boston Harbor Islands. Furthermore, the success of an existing information kiosk on Long Wharf, staffed by NPS, demonstrates the need for a larger facility to provide more comprehensive information on all regional NPS facilities.

*Parcel 15.* Immediately south of Parcel 14 on the other side of State Street, most of the description of that site also applies to this one, although a somewhat larger facility (but still only about 1500 square feet) could be constructed. One plan has called for a "harbor orientation center" here.

*Parcel 18.* This site is well away from the Freedom Trail; it is the southernmost location under consideration. Bounded by High Street to the north and New Northern Avenue to the south, Parcel 18 is the closest site to South Station and South Boston Seaport District (including attractions such as the Children's Museum and the Boston Convention and Exhibition Center, now under construction). Red and Blue Line transit stations are both short walks away; Rowes Wharf commuter and excursion ferry services are adjacent. Automobile traffic is heavy. Although this site incorporates Central Artery ramps, it is zoned as open space, but there has been some discussion about development. The large size of the site, depending on final zoning restrictions, is conducive to large-scale development. Parcel 18 is not in an area that currently experiences high pedestrian traffic, although that could change due to many factors, such as the buildout of the Seaport District with hotels and mixed-use development.

*200 State Street*. This site is actually the ground floor of an office building on State Street, just at the east end of Quincy Market; the space is currently used, at least sometimes, as a public gallery. It is an area of heavy pedestrian, transit, and automobile traffic. Because a structure already exists, new construction would not be possible, nor would the provision of any pedestrian amenities. Although the location is very good, space constraints, security considerations, and concerns of the landowner and the building tenants make intensive development or operation here very unlikely.

*Atlantic Avenue. Garage.* This building, southwest of the Aquarium, currently experiences heavy parking usage. Some Aquarium facilities and offices are located on the ground floor, but these face the Aquarium to the east, not the Surface Artery to the west. The site is near pedestrian flows but off the main route; the closest transit access is Aquarium station on the Blue Line. Long Wharf ferry services are nearby. Parking is convenient, and bus access may be possible. But substantial aesthetic alteration/ renovation would be needed to give the appearance of an NPS facility, and little space is available.

*City Hall Plaza.* This large open area next to Boston City Hall has long been discussed as a location for some sort of development. The space is well traveled; it is near Beacon Hill, Quincy Market, and the North End, and is adjacent to Government Center station on the Blue and Green Lines. Several parking garages are nearby. Depending on the development plan, the site could be flexible, as considerable space is available. However, the proximity of Boston City Hall and of the adjacent complex of Federal buildings presents serious security considerations. Since the tragedies of September 11th, 2001, in particular, any sort of large-scale, public-access development on City Hall Plaza has become profoundly difficult.

| | Parking | | Subway | | Subway | | Ferry | | Hotels | | Hotels | | Pedestrian | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Spaces | | Stations | | Passengers | | Stations | | (No.) | | (No. of Rooms) | | Flows | |
| Location | 0.1 mi | 0.25 mi | 0.1 mi | 0.25 mi | 0.1 mi | 0.25 mi | 0.1 mi | 0.25 mi | 0.1 mi | 0.25 mi | 0.1 mi | 0.25 mi | 0.1 mi | 0.25 mi |
| Faneuil Hall | 1,436 | 8,846 | - | 5 | - | 41,902 | 0 | 1 | 3 | 7 | 351 | 1514 | High | High |
| | | | | | | | | | | | | | | |
| City Hall Plaza | 2,750 | 7,113 | - | 5 | - | 41,902 | 0 | 0 | 0 | 5 | 0 | 953 | High | High |
| | | | | | | | | | | | | | | |
| Parcel 6 | 2,672 | 6,286 | 1 | 5 | 9,011 | 50,427 | 0 | 0 | 0 | 2 | 0 | 267 | Medium | High |
| | | | | | | | | | | | | | | |
| Parcel 7 | 2,658 | 7,064 | 1 | 5 | 9,011 | 41,902 | 0 | 0 | 0 | 4 | 0 | 407 | Medium | High |
| | | | | | | | | | | | | | | |
| Parcel 12 | 1,141 | 5,380 | - | 5 | - | 41,902 | 0 | 0 | 1 | 4 | 201 | 625 | Medium | High |
| | | | | | | | | | | | | | | |
| Parcel 14 | 484 | 4,474 | 1 | 2 | 3,245 | 20,022 | 1 | 2 | 4 | 7 | 625 | 1543 | High | High |
| | | | | | | | | | | | | | | |
| Parcel 15 | 1,445 | 4,997 | 1 | 2 | 3,245 | 20,022 | 1 | 2 | 4 | 7 | 625 | 1543 | Medium | High |
| | | | | | | | | | | | | | | |
| Parcel 18 | 730 | 6,180 | - | 2 | - | 20,022 | 1 | 2 | 2 | 5 | 592 | 1093 | Low | Medium |
| | | | | | | | | | | | | | | |

Sources: Parking spaces, 1996 inventory, Central Transportation Planning Staff;
Subway passengers, total number of passengers using the stations in 1998 within the given distance;
Hotel information, Massachusetts Office of Travel and Tourism;
(Note: Data for two sites, 200 State Street and the Atlantic Ave. garage, are not available.)

***Transportation Data Chart***

As part of the overall transportation analysis, a quantitative evaluation of each site was also undertaken, using available traffic data and measurements. The chart above presents information about each site in several categories, and each category consists of two distance components – 0.1 mile, representing the site's immediate surroundings, and 0.25 mile, which gives more of a sense as to what is within a short walking distance.

*Best Fits Criteria*
Following the completion of the individual site analyses, the evaluation criteria were revisited to determine which sites best fit them.

The transportation data-analysis results comprise part of the categories "pedestrian access," "public-transit access," and "automobile and bus access."

| Category | Best-fit site(s) | Notes |
|---|---|---|
| Pedestrian access | Parcel 14, City Hall Plaza, Faneuil Hall | Pedestrian traffic near these sites is already high; access to these locations is safer and more convenient than to other sites. |
| Public-transit access | Parcels 6, 7, 12, 14, and 15, City Hall Plaza, Faneuil Hall, 200 State Street | Each of these sites has at least one transit station nearby; most are near multiple stations. |
| Automobile and bus access | Parcels 6, 7, 12, and 18 | Parcels 6, 12, and 18 are convenient to underground Central Artery ramps; Parcel 7 is adjacent to large Haymarket parking garage. |
| Buildout potential | Parcels 6, 7, 12, and 18 | These sites – due to a combination of size and zoning permissions – will accommodate the largest facilities. |
| Visitor experience | Parcels 6, 7, 12, 14, and 15, City Hall Plaza, Faneuil Hall | Parcels 6 and 7 tie into the North End; 12, 14 and 15 help bind the waterfront to downtown; City Hall Plaza would make productive use of a high-potential location; Faneuil Hall already has significant interpretive value. |
| Other studies/plans | Parcels 6, 7, 12, City Hall Plaza | Parcels 6, 7, and 12 are zoned for building; City Hall Plaza has long been a target for some sort of development. |

The ten sites were then sorted into "primary" and "secondary.

***Primary Sites for Consideration***

| Site | Advantages | Disadvantages |
|---|---|---|
| Faneuil Hall | Extremely visible location at the epicenter of Boston tourism; opportunities for thematic linkages and outreach to more casual visitors. | Further studies are needed to determine the best location for bus and trolley parking. |
| Parcel 14 | Location between major attractions, proximity to water, good pedestrian, transit, and water-transportation access, high visibility. | Space and zoning restrictions may limit size and service possibilities. Traffic congestion limits intermodal capability. |
| Parcel 15 | Location between major attractions, proximity to water, good pedestrian, transit, and water-transportation access, high visibility. | Space and zoning restrictions may limit size and service possibilities. Traffic congestion limits intermodal capability. |
| Parcel 6 | Near Haymarket and the North End the Freedom Trail passes in front of the site; access to two parking garages next to the site. Possible bus drop-off locations nearby; good connections to existing attractions; site is large and zoned for building. | Space and engineering constraints posed by Central Artery Tunnel. |

## CHAPTER IV. THE CASE FOR FANEUIL HALL

***Urban Design & Development Considerations***

Faneuil Hall, a National Historic Landmark, is owned by the City of Boston and is named in the authorizing legislation for Boston National Historical Park. The building is an ideal place to contact visitors and to make transportation connections. Faneuil Hall occupies a prime location in the heart of Boston's Freedom Trail and is the focal point of the internationally recognized Faneuil Hall Marketplace. It is located centrally among three major subway and bus facilities, as well as several major parking garages, and is also accessible to water transportation to Logan Airport and to the locations of other National Park facilities, including Boston Harbor Islands, Quincy, Salem, and Cape Cod.

NPS is working closely with the City of Boston and several partner organizations to explore the possibility of improving visitor orientation and information services at Faneuil Hall. For fifteen years, NPS has sought an expanded presence in Faneuil Hall for purposes of enhanced visitor information. The City of Boston is supportive of this project, which proposes to transform retail operations on two floors into a transportation hub and related visitor information center to be operated by NPS and partner organizations. Furthermore, opportunities exist to partner with a public tourism entity, to provide concierge-style services, including information and reservations for lodging, restaurants, plays, etc.

**Faneuil Hall**

This project could relocate NPS information facilities from 15 State Street – with current annual visitation of 300,000 – to Faneuil Hall, which benefits from the estimated annual visitation of 3 million people to Boston National Historical Park. Faneuil Hall also possesses much greater visibility, connections to public transportation, larger space for visitor facilities, and greater potential for expanded visitation and enhanced use of alternate transportation. Faneuil Hall could serve dozens of nationally significant historic sites in downtown Boston and expand NPS capabilities for face-to-face visitor assistance. Faneuil Hall would be most effective as a transportation and orientation center if the NPS could utilize the entire first floor of the building for visitor services.

The possibility of developing a site for tour bus and trolley pick-up and drop-off in the vicinity of Faneuil Hall should be explored with the Boston Transportation Department and the managers of Quincy Marketplace. In particular, possible locations on the Atlantic Avenue side of Quincy Market and on Congress Street directly in front of Faneuil Hall should all be considered as possible options.

***Project Components***

The primary goal of the project would be the rehabilitation of the market floor to allow for an

expanded NPS presence, including partners, to serve up to 3 million annual visitors. The rehabilitation could include:

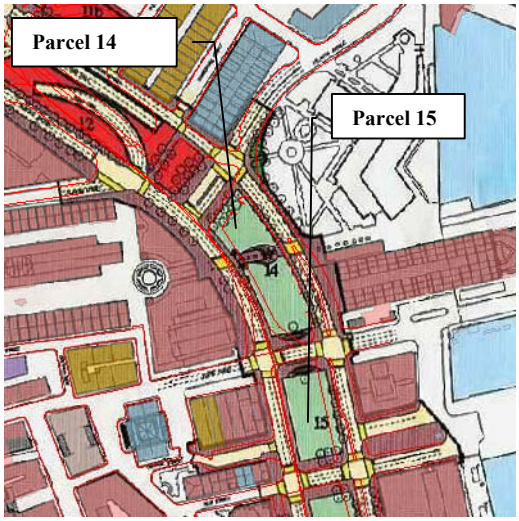
- Enhanced visitor contact desk
- Information kiosks
- Upgraded electrical system
- New HVAC system
- New security system
- New connecting stair between market floor and lower floors
- ADA access to market floor
- Staircase to connect market and basement floors
- ADA toilet facilities
- Mechanical and electrical upgrades
- Facilities for tour groups and NPS A/V orientation
- Facilities for exhibits

An expanded NPS presence at Faneuil Hall would be most effective if it included a comprehensive signage system outside the building and in the immediate vicinity of the building. Such a system, which would guide visitors to the services available at Faneuil Hall, would need to be sensitive to the historic character of the structure and the surrounding neighborhoods.

## CHAPTER V. THE CASE FOR PARCELS 14-15

***Urban Design & Development Considerations***

Every year, 1.7 million visitors make their way to the New England Aquarium and the Boston Harbor Islands, a national park area. In total, the visitors they attract bring $34 million in economic enrichment to the city, and they help to enliven the waterfront. High quality educational programming is available at both the Aquarium and the Boston Harbor Islands, providing important learning for residents and visitors alike.




**Parcels 14-15**

Anchored by the New England Aquarium and Long Wharf, the waterfront at the Wharf District is a magnet for people seeking a direct experience of the Atlantic Ocean. It is also a key access point of an expanding water transportation system that serves residents, tourists, and visitors to the Boston Harbor Islands. Planners for this district have long recognized that the area must welcome people arriving on foot and by car, by bus, by subway, and by boat. It is the place where visitors board the ferry to the Harbor Islands and where commuters arrive by boat from Charlestown, Hingham, and Quincy. Design work is currently underway in this area for new parks as part of the Rose Kennedy Greenway.

***Project Components***

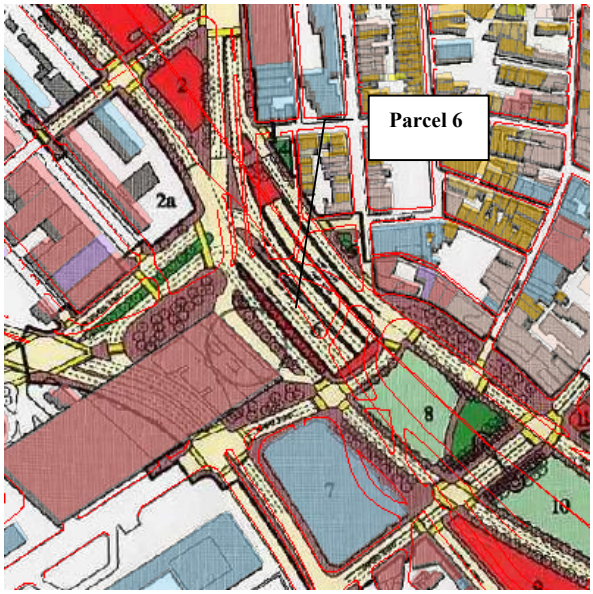
Parcels 14 and 15 of the new Rose Kennedy Greenway, part of the Wharf District and a significant gateway to the Boston Harbor Islands, are at a major crossroads for pedestrians. Visitor information is critical in this location and should be provided by a public entity. The National Park Service could provide orientation information, visitor services and facilities, and trip-planning materials here within easy reach of numerous NPS and NPS partner facilities. Parcels 14 or 15 would likely be most appropriate for a visitor contact station, a small facility that could offer visitors basic information and facilities. The park designers have been asked to incorporate:

- A circulation system that works for pedestrians and vehicles.
- Easily accessible parks that promote clear, safe circulation.
- Good signage that helps to connect people with the Harbor and the rest of the city.
- Design elements that promote the waterfront and the Harbor Islands.
- Visitor amenities such as well-maintained toilets and drinking fountains.
- Design elements that serve an interpretive purpose.
- A place for year-round event and activities, both for small and large groups.

## CHAPTER VI. THE CASE FOR PARCEL 6

***Urban Design & Development Considerations***

Strategic partnerships can enrich the scope of an orientation facility so that it becomes a destination in and of itself, addressing not only a local but also a regional constituency. Opportunities exist in the synergies that could occur in partnering with the Boston Museum Project (BMP), which has identified Parcel 6 of the future Rose Kennedy Greenway as a viable location for a multi-function cultural institution. It must also be noted that a partnership with the Boston Museum Project is the most long-term of the three efforts discussed in this report, requiring a successful, and significant, fundraising effort on the part of BMP.




**Parcel 6**

A review of the primary sites for consideration outlined in the previous sections indicates that Parcel 6 fulfills a number of prerequisites that would strengthen the project's viability. According to a recent study[1] these include considerations of project location, content interpretation and facilities operation. Firstly, Parcel 6 offers a number of locational advantages with regards to transportation. These include the parking facilities in the MBTA and Parcel 7 garages immediately adjacent to it. These garages make the site easily accessible to visitors arriving by car on the sunken Central Artery or the Massachusetts Turnpike, via on-and-off ramps surfacing at the project site. These garages sit atop the Haymarket Subway Station serving 2 of the 4 transit lines in Boston as well as being a terminus for intercity buses. Also, North Station is a few blocks away serving Commuter Rail and AMTRAK travelers, thereby enhancing the intermodal transport characteristics of this location. Lastly, the MBTA garage bus terminal, as well as Parcels 7 and 8, offer potential options for pick-up-drop-off areas for school and/or tour buses and trolleys as well as private automobiles.

A comprehensive Visitor Center could address the objectives of NPS, BMP and greater Boston by taking advantage of the synergies generated by several entities in creating a "one-stop" service for area visitors offering facilities, information and customized orientation of the highest quality. A unique multi-media presentation offered in-house would further reinforce the image of the Visitor Center as a destination in its own right, in such a way so as to make the interpretive experience fun, educational and memorable. Through the coming together of these three entities the city's stories can be unfolded in the context of today's audience who would go on to unlock the potential of cultural "tourism," a segment of the industry, which is of rising importance for the city's economy. A rise in the quality of the experience, as far as this segment of visitors is concerned, has economic ramifications stemming out of the increased number of people visiting

[1] "Freedom Trail Visitor Orientation Center: Parcel 7 Feasibility Evaluation," by Goody Clancy and Associates with the Office of Thomas J. Martin, June 1997.

the cultural attractions and the extended length of their stay in the area. The result is a substantial increase in tourism revenues.

Thirdly, the fact that Parcel 6 is adjacent to major transportation nodes, catering both to a transitory professional and tourist population, as well as a permanent community in the adjacent North End offers the possibility of financial self support through generation of revenues from related uses. These can be in the form of unique presentations featured on-site, as well as retail facilities and food courts located within and catering to tourists, office workers and residents. The facility will offer space for community functions and may rent space to compatible organizations. All of these will help make the project financially viable and community oriented.

*Visitor Center Programmatic Requirements – Design Goals and Spatial Characteristics*

According to an ongoing study[2] by Saratoga Associates, the NPS site planning consultants for the project, the facility proposed for Parcel 6 could provide a bookend and anchor at one end of the Rose Kennedy Greenway; house an attractive and vibrant new museum reflecting the real people, places, and stories of Boston; be the heart of a wayfinding system to Boston's special places; provide a community center for Greater Boston; and strengthen Boston's tourist and creative economy.

Based on these and other recent studies by White Oak Associates[3], the combined Museum and NPS Project would require approximately 200,000 square feet. This includes space for an orientation center, restaurant and shops and function rooms, as well as space for exhibits and galleries. The amount of space allocated to the orientation center will vary based on arrangements between the NPS, the BMP and other potential partners.

The BMP has articulated a wide-ranging vision for the new institution, including the following elements. This program is compatible with National Park Service goals and would provide many benefits to the National Park Service units of greater Boston.

- To be a citywide cultural and community center, a place for fun, learning and public dialogue.
- To be a new front door for Boston that introduces visitors to the people and stories of the city.
- To offer information systems and personalized help for visitors to find out the what, where, why and how to get there, of Boston's cultural offerings.
- To be a place that will raise the profile of history among the regional cultural institutions and promote the importance of preservation.
- To be welcoming to scholars interested in studying Boston's past and to be a learning laboratory for local universities and schools.
- To be at the hub of a transportation and information system that helps to preserve the environment and the quality of life downtown and to make Boston more friendly and

[2] "Parcel 6 Site Studies" by the Saratoga Associates for NPS and Boston Museum Project, September 2002.
[3] "Boston Museum Project Planning Study" by White Oak Associates with the American History Workshop, June 2000.

accessible.

- To be housed in an outstanding building, adding beauty, power of place, and definition to the new Rose Kennedy Greenway.

## CHAPTER VII. ECONOMIC IMPACT OF A COMBINED BOSTON MUSEUM AND NPS ORIENTATION CENTER

This section examines the economic impact of visitation at the National Park Service areas in central Boston as well as the potential impacts of a combined downtown visitor orientation center with a prospective facility of the Boston Museum Project. It comprises two overlapping sets of analyses: the direct impact of spending by NPS visitors, plus the broader effects on the long-term health of Boston's regional economy.

First, though, it may be instructive to take a step back and look at the current role of the tourism industry as a whole in Boston's regional economy. The Greater Boston Convention and Visitors Bureau estimates[1] that the Boston area drew 12.6 million visitors in 2001, a figure that includes both long-distance travelers and residents of nearby areas who come into Boston. Expenditures by these visitors supported about 77,000 local jobs and had a total economic impact of approximately $7.5 billion.

To put this latter figure in perspective, the Boston area's Gross Metropolitan Product, a measure of the total value of the goods and services produced in the region, was estimated[2] at $239 billion per year. Thus, tourism and tourism-related expenditures comprise just over 3 percent of the region's total economic output – a small but significant component of Boston's economic vitality.

*NPS Areas: Current Visitation and Impact*

The methodology employed here for calculating economic impact is a typical one for studies of this kind. First, estimates of direct visitor spending are prepared using available data on visitation levels, visitor profiles, and spending habits. Then, to account for the indirect and induced spending that ripples through the regional economy as a result of this direct visitor spending, a spending multiplier is applied to produce the overall impact estimates.

National Park Service data for 2001 show the following annual numbers of recreational visits for the three NPS areas located in central Boston:

| | |
|---|---|
| Boston National Historical Park (BOST) | 2,753,160 |
| Boston African-American National Historic Site (BOAF) | 390,067 |
| Boston Harbor Islands (BOHA) | 125,000 |

It should be noted that the BNHP figure represents a grand total of all of the park's constituent sites – Faneuil Hall, Old North Church, and others. Since some visitors go to more than one site during their trip, this overall total was adjusted to model a conservative estimate of "unique" visitors, using the visitation levels at one site alone. The most frequently visited single site

[1] Greater Boston Convention and Visitors Bureau, 2002 Fact Sheet.

[2] "US Metro Economies: The Engines of America's Growth." Prepared by DRI-WEFA for the United States Conference of Mayors, 2001.

within BNHP is the Charlestown Navy Yard, with 1,118,148 visitors in 2001. Adding this figure to the totals for BOAF and BOHA yields a total of approximately 1.6 million visitors per year.

| | |
|---|---|
| BOST Minimum – Charlestown Navy Yard | 1,118,148 |
| Boston African-American National Historic Site (BOAF) | 390,067 |
| Boston Harbor Islands (BOHA) | 125,000 |
| TOTAL | 1,633,215 |

This total figure may understate total visitation, but it is necessarily an approximation. Indeed, even the "hard" data from the NPS represent not exact visitor counts, but rather estimates of visitation based on visitor center traffic and observations of parking lot activity and tour bus arrivals. More broadly, it is important to keep in mind that, despite the apparent precision of the numbers, the figures presented should be taken as orders-of-magnitude estimates, not exact statistics.

In order to generate estimates of visitor spending, this total count of approximately 1.6 million visitors must be further divided into distinct visitor segments. The first step in this process is to determine what fraction of these NPS visitors are out-of-town visitors rather than local residents. A 1995 survey of Freedom Trail visitors[3] found that only nine percent came from Massachusetts, the rest being visitors from other states or from abroad. However, given the timing of the survey, this may underestimate the proportion of school groups and other local visitors; moreover, both BOHA and BOAF tend to draw proportionately more local visitors. Therefore, to be conservative – i.e., not to overstate the level of visitor spending – we will assume that 75 percent of visitors come from outside the Boston metropolitan area[4].

| | |
|---|---|
| Charlestown Navy Yard | 1,633,215 |
| Boston-area residents (25%) | 408,304 |
| Out-of-town visitors (75%) | 1,224,911 |

Because lodging is typically the largest single component of visitor expenditure, it is common practice to segment visitors according to their accommodation arrangements. The Greater Boston Convention and Visitors Bureau estimates that 49 percent of visitors stay in hotels, 34 percent stay with friends and relatives, and 17 percent make a day trip.[5] We can apply these proportions to our figure for out-of-town visitors to get the following breakdown:

| | |
|---|---|
| Hotel | 600,207 |
| Visiting friends & relatives | 416,470 |
| Day trip | 208,235 |
| Total | 1,224,911 |

With these figures in hand, we apply the Greater Boston Convention and Visitors Bureau's

[3] Office of Thomas J. Martin. Memorandum, "Survey Results for Summer/Fall Interviews" prepared for Freedom Trail Team. February 20, 1996.
[4] This figure is consistent with the observations of BOST staffers.
[5] Greater Boston Convention and Visitors Bureau, 2002 Fact Sheet.

estimates of each segment's length of stay and daily spending profile.[6] This allows us to generate an estimate of total direct visitor spending:

| Visitor accommodation segment | Avg. length of stay | Expenditures per day | Total |
|---|---|---|---|
| Hotel | 2.275 | $ 188.00 | $ 256,708,359 |
| Visiting friends & relatives | 2.1 | $ 38.75 | $ 33,890,236 |
| Day trip | 1.0 | $ 38.75 | $ 8,069,104 |
| TOTAL | | | $ 298,667,699 |

Thus, in 2001, visitors to the three NPS areas in central Boston spent just shy of $300 million on goods and services during their visits to the Boston area. These direct expenditures are the principal component of the economic impact of visitors, supporting roughly 3,300 jobs[7].

Moreover, these direct expenditures also inject money into the regional economy, which is then re-spent in successive rounds of economic activity. For example, when a tourist pays $20 for a meal, the restaurant owner then takes that $20 to pay employee wages and buy supplies; the employees and suppliers, in turn, use this income to make other purchases, and so on – until the money is either saved (rather than spent) or is spent on goods and services from outside the region. Therefore, the most common way of capturing the effects of these successive rounds of spending is to use a multiplier based on the so-called marginal propensity to consume locally – that is, the fraction of each dollar that is used to buy local goods and services. Based on prior research in this area, we use 1.61 as a fairly conservative estimate of the regional spending multiplier[8]. This produces a total economic impact of approximately $481 million.

| | |
|---|---|
| Direct Visitor Spending | $ 298,667,699 |
| Total Economic Impact | $ 480,854,996 |
| | |
| Jobs Supported | 3,314 |

An alternative approach is the NPS' own MGM2 model of economic impact, which uses a similar methodology. We applied this model using the same visitor counts and accommodation splits as above, along with the model's built-in estimates of visitor spending and spending multipliers. Though we selected the "high" spending dataset, the model generated visitor spending profiles that were much lower than the figures supplied by the Convention and Visitors Bureau. For example, the MGM2 model shows the average hotel visitor spending at only about $40 per day, versus the Visitors Bureau estimate of about $188 per day. This is likely due to the fact that downtown Boston is among the very highest-cost areas in the nation, even when

[6] Greater Boston Convention and Visitors Bureau, 2002 Fact Sheet.

[7] This figure represents total jobs, not full-time equivalent. Figures based on Massachusetts Office of Travel and Tourism, "Travel Impact in Massachusetts – 2000".

[8] Gul Butaney et al. "Economic Impact Analysis and Visitor Profile: Lexington Historical Society, Concord Museum, Museum of Our National Heritage, Minute Man National Park, and Orchard House". Bentley College, March 1995.

compared to other urban centers; it is especially true when compared to other NPS areas, many of which are in rural or suburban settings. As a result, the MGM2 model provides estimates of visitor spending that are roughly half as much as our own estimates. However, the model's predictions regarding jobs supported were slightly higher than our own.

**Visitor spending: the MGM2 Model**

| | |
|---|---|
| Direct Visitor Spending | **$ 158 million** |
| Total Economic Impact | $ 246 million |
| | |
| Jobs Supported | 5,000 |

In the sections that follow, we will use the estimates generated by our own model rather than the MGM2 model, as we believe the former to be a more realistic assessment of the visitor economy in Boston.

*Visitation Estimates for an Enhanced NPS Visitor Orientation Center*

A new, enhanced visitor orientation center in downtown Boston would be expected to draw greater numbers of visitors to the center. The exact number would, of course, depend on its location and size as well as the range of services offered. One possibility is the co-location of the center with the Boston Museum Project. While this project is currently in the planning phases, with its physical location and the exact nature of its programming still to be determined, feasibility studies have estimated that the museum will draw approximately 662,000 visitors per year[9]. This figure is the result of calculations of the "capture rate" of the four main potential markets for the museum: local residents, residents of the greater Designated Market Area (DMA), tourists, and Massachusetts schoolchildren.

**Boston Museum Project: Estimates of Annual Attendance**

| Market segment | Size | Capture: low | Capture: high | Attendance: low | Attendance: high |
|---|---|---|---|---|---|
| Metro area | 3,982,500 | 7% | 9% | 278,775 | 338,513 |
| DMA (outside metro) | 2,110,200 | 3% | 4% | 52,755 | 73,857 |
| Tourists | 5,444,000 | 3% | 5% | 163,320 | 272,200 |
| Mass. schools K-12 | 1,127,641 | 6% | 9% | 62,020 | 102,615 |
| Total | 12,664,341 | | | 556,870 | 787,185 |
| | | | | | |
| Midpoint estimate | 662,000 | | | | |

Of course, these attendance figures are still something of an open question. In their market analysis, White Oak Associates note that "the Museum … will be designed as a unique city/history museum that will be more hands-on than a typical history museum and will also act as a gateway for tourists. This makes it very difficult to predict attendance. There are no other

[9] White Oak Associates, Inc. Market analysis, June 2000.

exact models."[10] A potential partnership with the NPS adds another layer of uncertainty to attendance projections. The current NPS orientation center at 15 State Street sees about 307,000 visitors per year, so combining this with the midpoint estimate of Museum Project attendance yields a total of about 969,000 visitors per year to the combined Museum Project and NPS orientation center. The actual total could, of course, be less than this due to the potential for double-counting of visitors. However, NPS staff indicate that attendance could also be substantially higher – perhaps nearing 1.5 million per year – if the synergies between the Museum and the NPS center make the combined facility both a not-to-be-missed attraction for tourists as well as a draw for local residents.

*Future Impacts: Visitor Spending and Regional Considerations*

In the near term, total visitation at the three NPS sites in Boston is unlikely to rise dramatically simply because of the presence of an enhanced orientation center. Tourists' travel plans are often made well in advance, and visitation patterns do not change overnight. So initially, improved orientation services would raise the quality of the visit for Boston's tourists but would do little to change the overall visitor profile. However, over the longer term, visitation patterns may indeed change in response to the project. This has ramifications for economic impact to the extent that:

- Additional visitors are drawn to Boston who otherwise would not be, and/or
- Existing visitors decide to extend their stay or spend more money during their stay.

This latter scenario in particular is consistent with research indicating that "cultural" tourists – i.e. those drawn to patrimony sites, such as the NPS areas in Boston – constitute a wealthier, higher-spending demographic. This group of tourists also tends to add extra time to their trips in order to take advantage of cultural resources; for example, one study showed that 39 percent of cultural tourists had added at least an extra part-day to their trip[11].

An enhanced NPS orientation center, particularly when partnered with the Museum Project, would certainly represent a strong effort to attract more of these cultural tourists to Boston and to provide them with additional resources to make the most of their trip. The concomitant increases in visitor stays and spending that could result from such efforts would also tend to increase the regional economic impact of NPS visitation.

The chart on the next page highlights one such scenario. It assumes that the aggregate number of visitors to NPS sites does not increase, but that 15 percent of visitors decide to add a half-day to their trip. Additionally, it assumes that the upscale demographics of these visitors translate into a 5 percent increase in average daily visitor spending. While these numbers are speculative, they are also fairly modest compared to the statistics reported in surveys of cultural tourists. The result is an increase of $40 million in total economic impact for the region.

Aside from any changes in visitor spending or demographics, enhanced visitor services can only help to improve visitor satisfaction. For example, travel-planning advice can reduce visitors' frustration with getting around in the Boston area, while information on thematic links can help

[10] White Oak Associates, Inc. Market analysis, June 2000.

[11] Travel Association of America study, quoted in White Oak Associates, Inc. , Market analysis, June 2000.

provide visitors with a richer, more rewarding visit. Over the longer term, higher levels of visitor satisfaction are likely to translate into more favorable views of Boston-area NPS sites and more repeat visitors – and thus a positive impact on regional economic activity.

*Potential Incremental Effects of Boston Museum & National Park Project*

| | Current levels | Potential future levels with joint NPS center – Museum Project |
|---|---|---|
| Avg. length of visitor stay – hotel guests | 2.275 days | 2.35 days |
| Avg. length of visitor stay – visiting friends & relatives (VFR) | 2.1 days | 2.2 days |
| Avg. daily visitor spending – hotel guests | $188.00 | $197.40 |
| Avg. daily visitor spending – VFR | $38.75 | $40.69 |
| Avg. daily visitor spending – day trippers | $38.75 | $40.69 |
| Economic impact (in millions): direct | $298 m | $324 m |
| **Economic impact (in millions): total** | **$481 m** | **$521 m** |

It is difficult to estimate these effects with any precision because of the long time horizons involved, and because external changes (such as in the state of the economy) tend to have a much larger influence on travel decisions. This is due to the fact that tourism is a "luxury" good – in economic jargon, it has an income elasticity of demand greater than one. Unlike the household budget for, say, food and medicine, travel budgets tend to vary sharply with economic ups and downs. A similar story also applies to business travelers: nonessential corporate travel may be one of the first things to be cut during lean times. For high-spending international visitors, exchange rates, security concerns, and the state of the home economy are also important factors driving travel decisions[12]. So while the overall impact of an enhanced orientation center should be positive, the magnitude of this effect is likely to be small when compared to the potential future swings in travel patterns and visitor spending.

*Longer-Term Regional Benefits*

Some of the most important economic benefits of Boston's NPS areas come not from direct visitor expenditures but rather from the long-term effects on the region's economic competitiveness. A growing body of academic research suggests that American metropolitan areas compete with each other for investment, jobs, and economic vitality on the basis of their quality of life, cultural resources, and ability to attract top talent.

[12] Donna L. Goodison, "Tourism sneaks back… but dearth of international visitors and declining business travel keep numbers down". *Boston Business Journal*, April 29, 2002.

In keeping with this idea, research by Richard Florida of Carnegie Mellon University has shown that the creative economy – fields such as the arts, engineering, academia, journalism, science, and technology –have a disproportionate effect on the economic strength of metropolitan areas. Boston, with its many high-tech jobs and its long-standing penchant for innovation, currently ranks third in the nation on Florida's Creativity Index, placing just behind San Francisco and Austin and ahead of such creative powerhouses as Seattle, New York, and Los Angeles. Recently, the 2002 *Boston Indicators Report* reinforced the importance of natural and cultural sites both to the regional economy and to the local communities of the Boston area, although access to information about such resources can be limited. Through the development of an expanded network of information provision, the National Park Service can play an important role in bringing cultural and natural experiences to diverse groups and populations and contributing to the local and regional economies.

# CHAPTER VIII. STAKEHOLDER ANALYSIS

White Oak Associates, a museum-planning consultancy, analyzed the potential for a collaborative project between the Boston Museum and National Park Service. Because any partnership with a major cultural institution would depend crucially on support from other stakeholders, one important component of this evaluation was a stakeholder analysis that measured the opinions of other cultural institutions in Massachusetts regarding (1) their need for and interest in museum support services and (2) their opinions toward a combined transportation hub, orientation center, and cultural institution in downtown Boston. Generally speaking, there was support for the idea of a facility that would encourage tourists to visit the historic and cultural sites in Massachusetts and give them the orientation services needed to do so.

Overall, the analysis concluded that a system of linked orientation and information services, when presented in partnership with other cultural offerings, would address four primary needs:

- Providing geographic and thematic orientation.
- Providing greater exposure for the many museums and historic sites.
- Helping to reduce congestion by offering a major transportation solution.
- Providing clean, friendly visitor services for people arriving and leaving downtown Boston.

A total of 21 cultural institutions participated in the study, which included a survey and, in some cases, follow-up interviews. Overall, reaction to these collaboration proposals was largely, but by no means uniformly, positive. With regard to museum support services, the cultural institutions surveyed indicated that they were most in need of visitor orientation services, particularly on basic transportation planning services. Another high priority was in the area of marketing, public awareness, and outreach to local residents, as well as training of professional staff. Somewhat lower on the priority scale were administrative support services, though some individual institutions did express interest in some of these as well – for example, bulk purchasing of maintenance and insurance.

Attitudes toward the proposed museum and orientation center were wide-ranging but generally positive, with 88 percent of the responding institutions expressing some degree of support for the project. Some of the principal concerns raised were that the project might not garner enough financial support in the public and private sectors, or that the combined museum and orientation center would be so large and comprehensive that it would discourage visitors from actually going out and seeing the "real" Boston. However, there was support for the idea of a museum that would instead encourage tourists to visit the historic and cultural sites around Boston and give them the orientation services needed to do so.

# CHAPTER IX. RECOMMENDATIONS

As part of an effort to facilitate visitation to the National Parks of Massachusetts, this report offers guidance and recommendations for the improved provision of visitor services and traveler information. At present, there is no central information system to offer the 12 million annual visitors to the Boston metropolitan area comprehensive orientation information on the resources and services of the region, a gap which can generate visitor confusion, allow important cultural sites to be missed, and lead to inefficient use of the transportation network. A comprehensive system for the provision of visitor information could alleviate these problems, while also encouraging visitation to a wider variety of NPS and NPS partner facilities across Massachusetts.

Expanded visitor services in the heart of historic Boston offer the potential to increase cultural tourism, a segment of the tourism industry that is of rising importance for the local and regional economies. Massachusetts has long been a significant draw for visitors, and the facilities of the National Park Service and its partner organizations are an important part of the tourist landscape of the area. In 2001, three NPS units located in Boston – Boston National Historical Park, Boston African-American National Historic Site, and Boston Harbor Islands – were estimated to have received 3 million visitors, a significant portion of who were out-of-state tourists. Through expenditures on lodging, dining, retail, and other items, these visitors make an important contribution to the local economy, a contribution estimated at $480 million in 2001[1]. An overall improvement in the quality of the tourist experience, therefore, could have significant economic ramifications for the region as a whole, potentially generating an increased number of visitors to the cultural attractions of the area and leading to an extended length of stay for the average visitor. With the Democratic National Convention scheduled to be held in Boston during the summer of 2004, an effort to improve the quality and character of the Massachusetts visitor experience is particularly timely. The result of such an effort could be an increase in tourism-related revenues, an enhancement in overall visitor experience, and an improvement in the quality of life and long-term economic competitiveness of the region.

***Traveler Information System (TIS)***

This report presents a detailed, conceptual design of one component of the regional TIS proposed for the eighteen National Parks of Massachusetts and partner facilities: the Internet-based provision of travel-related information. As part of an enhanced Internet-based TIS, a new National Parks of Massachusetts website could (1) present the eighteen facilities as a regional group of geographically and thematically linked visitor destinations, (2) assist the user in identifying parks and events of interest, (3) facilitate travel planning based on the type of visitor or visitor group, available time, preferred modes of transportation, and any special circumstances, and (4) reinforce the identify of the National Park Service as a whole by maintaining the look and feel of other NPS-produced printed and web-based materials.

In addition to the capabilities of the Internet, other tools are vital for the provision of travel

[1] Based on data from the National Park Service, the Greater Boston Convention and Visitors Bureau, and the Massachusetts Office of Travel and Tourism.

and orientation information to visitors to Massachusetts. These other methods include signage and other wayfinding materials, advertisements, maps and brochures, and the personal services provided by NPS staff throughout Massachusetts.

Select recommendations are highlighted below.

***National Parks of Massachusetts Website***

Several options for the development of the website have been studied. Based on guidance from website designers who have extensive experience with travel and trip planning website programming, the two-phase approach described below is recommended.

*Discovery and Design*

Building on the concept design recommended in this report, the discovery and design phase will include definition and documentation of the information required for the website and a comprehensive site design. Site design will include overall site structure, graphics design, development of the data model and programming specifications, and specification of software requirements and deployment plans.

*Development and Implementation*

This phase will build on the Discovery and Design phase, and include site development and testing, deployment, documentation, and necessary stakeholder training. It is also recommend that someone work with the 18 park units to gather the detailed park information and to develop the thematic material linking different parks.

After implementation, the new website will require regular maintenance and updates. The cost of basic maintenance is estimated at $10,000 per year, but may vary depending on the final software choices and site location (i.e. the server and network environment).

***Signage***

An expanded NPS presence in downtown Boston would be most effective if it were complemented by a comprehensive signage system in the immediate vicinity of the transportation and orientation center. Such a system, which would guide visitors to the services available from NPS and other cultural and historic sites, would need to be sensitive to the historic character of the surroundings and developed in partnership with city, state, and Federal transportation agencies.

***On-Line Partnerships***

The NPS could partner with the MBTA to develop a marketing campaign for promoting NPS and NPS partner facilities throughout the MBTA system. Implementation could include advertisement on subways, signage, and permanent station maps showing NPS unit locations within walking distance of a transit station or bus stop.

***Downtown Transportation Center and Orientation Network***

All three of the possible locations described in this report share certain advantages. All are highly visible and well placed to attract the many visitors who traverse the Freedom Trail and the routes between Faneuil Hall and Boston Harbor. With other historic attractions in the

vicinity such as King's Chapel and the Old State House, more mainstream destinations such as the Fleet Center, Quincy Market, and the Aquarium just blocks away, and the gateway to the North End neighborhood nearby, any of these three sites could be ideally located as a central point from which to orchestrate a visitor's excursion through the area. From a transportation perspective, North Station or South Station are located within walking distance of the three sites, serving regional Commuter Rail and Amtrak travelers. Lastly, there are potential opportunities in the immediate vicinity for pick-up/drop-off areas for school and/or tour buses, trolleys, and private automobiles. On the weekends, furthermore, there is plenty of parking for private vehicles.

*Faneuil Hall*

One of the most historic buildings in Boston, Faneuil Hall is the centerpiece of Quincy Market and is adjacent to Government Center. A prime tourist attraction, on the Freedom Trail, and close to the downtown business area, the area around Faneuil Hall is heavily saturated with pedestrians, and several transit stations and parking garages are in the immediate area. The building is owned by the City of Boston, and the Mayor has expressed interest in having the National Park Service enlarge and enhance the current NPS visitor orientation area on the first floor. To fully utilize this location as a transportation hub, however, there needs to be better access for buses and trolleys. There are opportunities for curb cuts to accommodate bus drop-offs both on Congress Street and the Atlantic Avenue sides of Quincy Marketplace. Further discussions are recommended with the Boston Transportation Department, the developers of Quincy Marketplace, and local and regional bus and trolley operators to find the best alternatives. As mentioned above wayfinding signage is critical for success.

*Parcels 14 or 15*

Parcels 14 or 15 could act as a gateway to the Boston Harbor Islands and present a unique opportunity to support city-wide efforts to provide visitor orientation for Boston Harbor overall. As both of these parcels are designated primarily for open space, however, the maximum allowable building space on either parcel is quite small. In a building of this size, the Park Service could only provide basic orientation services and perhaps simple amenities. The National Park Service should continue to work with the Massachusetts Turnpike, the Wharf District design team, and the City of Boston to develop a harbor orientation program for the open space, walkways, and appropriate facilities adjacent to the parks.

*Parcel 6*

As discussed earlier in the report, the efforts of the Boston Museum Project to develop Parcel 6 into a large-scale museum and cultural center – one in which the National Park Service could offer transportation and orientation information – are long-term efforts, providing both challenges and great promise. The opportunity for NPS to be co-located with a significant cultural institution, one celebrating the vibrancy and diversity of the City of Boston, offers tremendous potential. In the short-term, however, the Boston Museum Project faces significant challenges, challenges of raising funds, of securing Parcel 6, and of navigating the regulatory framework within which a major new institution must come into being. As BMP is working towards its own goals, NPS should

continue to support the Project's planning and design efforts and should continue to discuss the possibility of NPS participation in the final plans for the Museum.

Furthermore, NPS should continue discussions with other key stakeholders, including the MBTA and the City of Boston, about opportunities for bus and trolley pick-up/drop-off in the vicinity of Parcel 6. In particular, existing and planned transit stations (North Station and Haymarket) and trolley tour routes in the area will need to be improved and connected within the proposed pedestrian network, such as a proposal for a shuttle service connecting North and South Stations and various other locations in between.

*Conclusions*

The three options presented here for an expanded transportation and orientation center could be developed individually, in concert, or in succession. The development of any one of the options would represent a significant improvement over the existing visitor orientation services and the development of more than one would create a sophisticated network of visitor information options, located in the heart of downtown Boston but serving the cultural resources of Massachusetts as a whole. A full-service visitor orientation and transportation center, when operated in conjunction with a comprehensive traveler information website and an upgraded network of signage and wayfinding materials, could offer a comprehensive system for guiding and improving the experience of visiting the cultural and historic resources of Massachusetts.

## APPENDIX 1: TRAVEL INFORMATION SYSTEMS - CONSIDERATIONS BY PARK

***Trip-Planning Information***

Adams NHP

Although Adams NHP is located very close to the Quincy Center station on the MBTA Red Line, in an urban setting, the overwhelming majority of visitors arrive by private car. This represents something of a missed opportunity, and in this sense, Adams could benefit from a trip-planning module that would provide potential visitors with more information on their transportation options. Adams also has a somewhat complicated circulation pattern because of the various facilities that make up the park – visitors can either walk or catch the trolley that runs on a loop between facilities. Pre-trip traveler information might help with this issue as well.

Staff at Adams find that their seasonal closure from mid-November to mid-April is a source of disappointment for would-be visitors. During the times when the park is open, heavy visitor traffic means that visitors often face long delays before being able to tour the buildings. Better pre-trip information would be useful here, in letting people know what to expect at different times of the year and times of day. It might even be possible to link the information system to Adams' computerized booking system, so that visitors could reserve their tickets and plan their trip well ahead of time, reducing the uncertainty of waiting times.

Adams is slightly unusual in that an entrance fee is charged and public toilet facilities are not readily available – letting people know what to expect beforehand would again be useful.

As with any other NPS park, Adams finds itself handling visitor information requests relating to lodging, dining, and other local attractions, some of which could be handled more effectively pre-trip.

Blackstone River Valley National Heritage Corridor

People do call/e-mail for trip-planning info, especially to the Rhode Island visitor center. People ask about highway signs; they don't know about the heritage area and call to find out. These "accidental tourists" sometimes just stumble on the park itself. People visit Slater Mills, the flagship site, and they do recreational things there: hiking, fishing, boating, and swimming. Thousands of trail miles are available, and a Worcester-Providence bike path has been proposed.

Access points are Worcester, which has Amtrak and bus service, and Providence; 20% of the city is actually in the heritage area, and the train station is nearby. Amtrak and bus service are also available from Providence. RIPTA serves Providence, Pawtucket, and Woonsocket, and Worcester airport is nearby. No public transport within the heritage area, though, although Woonsocket visitor center is in an old train station and visitors are sometimes confused, for there is no rail service.

Vast majority of visitors (>90%) are by car, but some do plane/car rental, and some tour bus. Staff at Blackstone Valley suggest that visitors start in one of 4 visitor centers; "gateways." Route 146 is a useful access road but doesn't go everywhere. The Woonsocket museum is 8-

10 miles off the highway. Some people get lost. Many sites are off the beaten path and require maps/directions. Getting people off the highway is a goal, to experience the historic landscape. Route 122 provides a "country road" valley experience. East-west travel is a problem.

Parking is a problem only on special-event days, but the Worcester and Providence lots can fill up. Visitor centers have their own parking.

Elderhostel is in its 3rd or 4th year of doing trips to B.V. The marketing council is targeting group tours; scout tours also come. There is a convention audience of sorts, and the B.V. educational network tries to promote school visitation. "Travel trunks" are sent to teachers; these are self-guided teaching packages. Advertising is done on the Mass. Pike. There are occasional newspaper pieces about specific corridor topics.

Boston NHP

Multiple modal options are available for traveling to and around Boston NHP: car, train, subway, commuter rail, bus, trolley, biking, and walking. Many visitors are from out of town, and either fly, drive, or ride the train to Boston. Since driving to the park is complicated and parking is expensive, many visitors who arrive by car complain (lost, no signs, couldn't find parking, expensive parking, etc.). The park would like to get this message out more effectively, and to emphasize the various alternative transportation options.

Most pre-trip questions focus on tour and program options, hours, Freedom Trail information, driving, hotel, and restaurant information. Many people arrive at the Visitor Center with questions about non-NPS sites in and around Boston, often under the impression that it is a central visitor center for the entire city.

Park staff always base their advice to visitors on the mode they will use, or have used, to arrive. They recommend different starting points and routes based on this information. Any traveler information system, especially web-based, should similarly provide information based on the visitor's mode of travel. Information aimed at visitor parties that include children or seniors also is important.

Many visitors to the park's visitor center inquire about destinations outside of Boston, such as Minute Man, Plymouth, Salem, etc. Yet, upon arrival in Boston, visitors often have no idea how far such places are. A traveler information system should provide distances and times required to travel to and between attractions outside the city.

One complicating aspect is that it is not clear where visitors should be directed to when they arrive: to the visitor center, to parking, to a specific facility? This issue not only complicates signage, but also the decisions about where to direct visitors and how to get them from their point of arrival (parking lot, train station) to the facilities. The information system should clarify this issue and what the options upon arrival are.

Boston African-American NHS

Most visitors to the Boston African-American NHS travel on foot or on the MBTA, as Park Street station is within easy walking distance. School groups and tour groups tend to arrive by bus or van. A small proportion of visitors do arrive by car, though, often because they assume they will need the car to get to their next destination. Staff said that they would like to encourage even more people to take public transit, and reassure out-of-town visitors that they will not need a car to get around Boston; parking is expensive and hard for visitors to find. They would also like to give would-be visitors plenty of advance warning that the walking trail can be physically challenging; the park has multiple facilities along a recommended trail.

The chief of interpretation also mentioned that they have plans to computerize their reservation system in order to keep track of the times, dates, and staff requirements for each tour. Linking such a system to a visitor information website might allow visitors to plan their trips more effectively – e.g. at periods of lower demand.

Boston Harbor Islands, a national park area

A visit to Boston Harbor Islands involves two stages of travel – first, to the ferry or boat dock, and second around the park. The islands are accessible by ferry from several on-shore departure points: Long Wharf in Boston, Hingham Shipyard in Hingham, Squantum Point Park in Quincy, and Pemberton Pier in Hull; guided tours take off from additional locations. Due to the variety of departure points and the centrality of Long Wharf, multiple travel options are available for accessing the park. These include driving, subway, bus, taxi, bicycle, and walking. It appears that the park's visitors utilize all of these modes. In addition, all the modes available to access Boston from outside can be used to reach the park – bus, train, driving, and flying to Boston and other regional airports. One drawback to driving to Long Wharf is the high cost of parking; however, those going on the park's tours that depart from Fan Pier have access to free parking on the weekends.

Traveling to and among the islands constitutes the second stage of a visit to Boston Harbor Islands. Once at the on-shore departure points, visitors must access the islands by boat; owners of private boats may dock at some of the islands as well. Bicycles and pets are allowed on the ferries, but not on the islands; toilets are not available on all the islands. The park maintains a fairly ambitious website, with tips on traveling to and around the park. Ferries run according to a set schedule, but many visitors have trouble working out the details of their trips on their own. They end up asking questions on the phone or in person in order to determine when they should be at each dock, how much time they will have at each destination, when they will return, and what they can and should bring with them.

Regular ferry service to the islands operates between May and October. People look for different things when planning a trip to Boston Harbor Islands. Some are interested in the history, others in the lighthouse, or in camping, while others still just come along for the boat ride and views it offers of Boston. The park also holds several popular special events throughout the year, including a Civil War Reenactment, Haunted Halloween, and Winter Wildlife Tours. During the Tall Ships' Boston stopover, however, visitation actually declined because people assumed the islands and ferries would be overcrowded. In fact, they were used far below capacity, and getting this message out effectively would have been helpful.

Park staff estimate that about 80% of visitors are from the Boston region, and 20% from outside. Many visitors inquire about other sites nearby – Quincy Market, the New England Aquarium, etc., and whether they can fit some of these sites in their schedules along with a visit to the islands.

Cape Cod NS

Most visitors travel to Cape Cod by car. Some travel by ferry or by air, while public transportation options for getting to and around the Cape are very limited. With 5 million visitors to Cape Cod NS, road and parking congestion is a serious problem. As a result, park staff are very eager to expand public transportation options, and to provide any information that would reduce unnecessary driving and car idling. The park is working with the Volpe Center on a 5- and 20-year plan. Possible modes include buses, shuttles, and vans.

Parking is a particularly important concern for the park. Congestion can be severe, and cars sometimes idle for hours while their occupants wait for a parking spot. Besides the frustration of waiting, this increases air pollution.

In addition, some visitors express disappointment at the limited public transit options; information about existing transit and shuttle options should be easily available. Currently, there is shuttle service in one part of Cape Cod NS, from Provincetown to Herring Cove Beach (5 propane-powered buses on a 20-minute schedule). The fare is $1 and the route is used by large numbers of commuters between Provincetown and Truro. Last summer it had 97,000 passengers, with a small percentage going to the beach. The shuttle is run by the Cape Cod Regional Transit Authority, but owned by the NPS. It is well publicized in its areas.

There is also a shuttle serving a remote parking lot, providing access to Coast Guard Beach in Eastham. However, the shuttle does not run between any destinations, only from the parking lot to the beach, due to lack of space for parking at the beach.

An important characteristic of visitors to Cape Cod NS is that many are "repeat visitors." This situation presents both opportunities and challenges on the information front: repeat visitors already know much about the park and how to get there, however, they may not be as likely to check for new information before each visit (and thus be updated about developments), instead trusting in what they already know. In the summer, 84% have been to Cape Cod NS before, with most having been there 11-20 times. In the winter the percentage of repeat visitors is similar, with the number of prior trips mostly between 6-10.

Frederick Law Olmsted NHS

Olmsted NHS is located on a winding street in a quiet suburban setting. It is about a mile from the nearest public transit access point, and the majority of visitors arrive by car. Many are locals, while others are tourists whom are either staying in a hotel or with local friends; those who stay with local friends generally have access to a car. Parking is extremely limited at the park itself, and most visitors park their car on nearby streets. Tour buses have nowhere to park, and must go elsewhere after dropping off their passengers. Staff try to encourage school groups to visit between Monday and Thursday, when the park is not open to the general public.

The park is open to the general public three days a week (Friday to Sunday), and to researchers five days a week by appointment. It gets approximately 7,000 – 9,000 visitors a year. The average visitor spends about 1.5 to 2 hours at the site, while researchers spend more time. Tourists combine their visit to the park with other attractions in the same day, such as the Freedom Trail, while many locals spend part of the day at the nearby Brookline Reservoir. Visitors do not constitute a diverse group, and the few international visitors tend to have specific interest in planning and/or Olmsted. Visitors tend to be from areas that border Olmsted landscape, like Central Park in Manhattan. Most of the visitors are probably local or from states along the East Coast. However, some of this may be due to the lack of marketing of the site.

The park engages in plenty of correspondence with researchers, but very little with the general visitor. Pre-trip contact is generally limited to phone and/or email requests for directions and/or the park's Internet address. The park is not completely ADA-accessible.

John F. Kennedy NHS

John F. Kennedy NHS is located in a suburban setting, off of a major street. It is about a ten-minute walk to the MBTA Green Line stop in Coolidge Corner. While most people drive to the park, the staff try to encourage use of public transportation. The park is open for part of the year only, with the length determined by annual budgetary conditions.

The park receives 13,000 – 15,000 visitors a year, with peaks up to 20,000 in years when there is a Kennedy family event. International visitors consider the site a pilgrimage; about 45% who sign the visitors' book come from other countries. For many tourists, the park is one of their top priorities while in Boston. In addition, many people combine a visit to the park with a trip to the JFK Library in Boston. Therefore, directions on how to travel between the two JFK-related sites are important. There are no accommodations for buses at the park.

Longfellow NHS

Longfellow NHS is located in a residential area within walking distance of Harvard Square. As a result, many visitors arrive by foot after reaching Harvard Square either in their cars or by public transportation. Therefore, in addition to driving and transit directions, walking directions are particularly important for Longfellow NHS. Automobile parking is not readily available at the park itself, but there are spaces for two tour buses. In addition, the site is along the tourist trolley route.

Visitors call with questions about the park, what there is to do, distance to nearby attractions, where they can eat, etc.

Longfellow is currently closed to the public for renovations. It will re-open later this year. Prior to closure, it received approximately 16,000 to 20,000 visitors a year. Due to a limited budget, the park is only open for part of the year, and only between Wednesday and Sunday. In addition, site tours are limited to 12 people, so large groups are encouraged to make arrangements in advance; groups larger than 12 people are split up. The site is not completely ADA-accessible.

Lowell NHP

People call and e-mail the reservations center, which is open seven days a week, to get general information, to reserve boat tours, and to develop group tour itineraries. The phone line also provides information on other Lowell events, such as hockey games. It is not automated; there are five full-time staff. In 1997, 8% of visitors called or e-mailed before coming; 3% used the website; 22% used a guidebook; 21% had visited before; 20% saw ads in newspapers or magazines (sometimes for special events); 40% spoke with friends or relatives; and 10% arrived with no knowledge about the park.

Very few people take the train to Lowell; most drive. The parking lot is near capacity in summer but over capacity only during special events.

There is a reluctance to walk through the city, especially among suburban visitors; this is more of a problem off-season, when the trolley does not operate. Also, it can be hard to find food, especially on weekends and holidays. Most places serve only breakfast and lunch and many close for one or two weeks during the summer, when students are away.

Regarding signage, 94% of visitors say they have no difficulty getting around the park; 86% rate highway sign quality average or good; 92% say they have no problem locating the park; 90% say that in-park directional signs are good. At the same time, the most common complaint is about difficulties finding the park, and the lack of signage guiding visitors once they are off the highway and on city streets; local signs list multiple sites, and thus are difficult to read thoroughly without enough time.

Visitors to Lowell National Historic Park frequently combine their visits with other destinations in the city, and some do things outside of Lowell. Most end up staying longer than they had expected.

Minute Man NHP

Locals frequently bring out-of-town guests, especially to the Battle Road.

Many people call/e-mail/show up with no knowledge of Minute Man other than "I see on the map there's a park – what is there to see/do? Why should I visit?"

But the park is becoming more of a destination; the newspaper and website try to persuade visitors that they need time. Still, few people call, e-mail (5-12 a week) or use the website; the most common call to the visitor center is, "Are you open?" However, that is usually an icebreaking question leading to more questions about the park.

People use the AAA guide and other guides, and many people have knowledge of Lexington and Concord.

Most people want to see the North Bridge and the Minute Man statue more than the rest of the park. The visitor center, though convenient to I-95, is not a popular destination, even though literature and rangers both direct visitors there. The car counter at the North Bridge points to 600,000/year visitation there; only about 130,000/year enter the visitor center, but that number was much lower before the multimedia center opened (60,000-70,000 in 1997, 81,000 in 1998, and then 125,000 in 1999). A car is necessary to get around the park.

Visitors do not express much frustration with missing things to see or do; they see what they really want and stay if there is more to see. They are often pleasantly surprised at how much there is to do. Tour companies are increasing the length of time spent at the park, from about 1 hr 15 minutes to half a day, possibly all day.

New Bedford Whaling NHP

Staff at New Bedford feel that, while the highway signage situation is not ideal, visitors are generally able to travel to the park without too much difficulty. One issue is that directional signs generally lead motorists to parking areas rather than to the actual museums and historic sites, because many of these facilities do not have on-site parking. Better pre-trip information might help alleviate some of this confusion and allow visitors to see where they can park their car in relation to the attractions.

Transportation access to New Bedford will also change radically by the year 2004 or 2005, when train service to Boston is proposed to be restored. At present, over 90 percent of visitors arrive by car, including about 17 percent in rental cars (bus service from Boston exists, but carries relatively few visitors). The city is counting on train service to increase the number of visitors to New Bedford, and to shift some of these visitors to public transportation. In particular, park staff are eager to draw more tourists and locals from Boston for a day trip to New Bedford via the train. Accordingly, New Bedford will need to develop a plan for moving people from the train station to the park facilities, and indeed some visitors arriving by train may also be interested in transferring to the city's free downtown shuttle bus. Enhanced trip-planning information would thus enable visitors to plan a more coordinated trip by public transportation.

The city of New Bedford also plans a number of outdoor festival-type events mostly in the summer, which can draw as many as 75,000 people. An advanced information system could provide visitors (and potential visitors) with more updated, detailed information on these festivals. This information is currently provided by the city through a large variable-message sign along Interstate I-95, so a web- or telephone-based system would broaden its reach.

Trip-planning information is also made available on New Bedford brochures at two Massachusetts highway visitor centers, as well as at the regional airport.

Questions about where to eat do not usually get asked pre-trip, with the exception of tour groups; such inquiries are usually made by visitors already in the area. Lodging, however, is inquired about often by people planning a visit to the area.

Salem Maritime NHS

Salem is an inherently confusing place to drive around – tourists and locals alike can get lost in a maze of one-way streets. Visitors tend to complain about poor, inconsistent signage on the route from the highway to the main parking garage, and about the lack of parking at peak times. Thus, some form of pre-trip travel information would likely help visitors plan their trips more effectively. It might also help visitors to become acquainted with the layout of Salem, where the visitor center is a roughly fifteen-minute walk from the park. Pre-trip information and coordination would also help accommodate the numerous tour buses that

arrive in Salem, and perhaps encourage more visitors to take advantage of the commuter rail link to Salem.

Saugus NHS

Many (if not most) of the visitors to Saugus have planned their trip fairly far in advance, and transportation access and signage do not seem to be major problems. At the same time, very few visitors are able to make the trip by public transit, and better trip-planning information might improve this situation. Since most people consider a trip to Saugus an interesting side-light rather than a full day's affair, an itinerary planning module might help visitors include a visit to Saugus on their way to other tourist attractions near Boston.

Saugus staff feel that their park (in contrast to some others in the region) is somewhat *under*-utilized. The superintendent's priority for a traveler information system would be to raise the profile of the park with both tourists and local residents.

***Interpretive and Educational Experiences***

Adams NHP

Adams has an elaborate set of thematic links and themes – the homes of the presidents, early American history and literature, African-American history, women's rights, and more. Park staff are eager to provide visitors with information on the breadth and depth of these interpretive themes, and to provide background information that will make the visitation experience more meaningful. Adams also runs a number of curriculum-based educational programs for schoolchildren; "Exploring the Real Thing" and "Parks As Classrooms" attract thousands of students from area school systems (public and private). Finally, the park is interested in making more interpretive information available to those who cannot make the trip to Quincy; plans are already underway for a 'virtual tour' of the park.

Blackstone River Valley National Heritage Corridor

Industrial-history fans visit – industrial revolution people (though few) and New England history visitors, a larger group. School groups also visit. Locals are 60%-70% of visitors. "Backyard syndrome" means that even many locals don't know what is on offer. Rangers try to provide interpretive experiences during special events.

Thursday-evening ranger walkabouts in the summertime attract visitors. Recreational users rarely, but sometimes, become history buffs. There are walking-tour brochures for independent visitors.

Boston NHP

Boston NHP has a wide variety of facilities, and most visitors do not know about several of them when they arrive. Many think of the Freedom Trail itself (i.e. the red brick line) as a site, and simply follow the line around without being aware of the sites they are passing. The traveler information system could educate potential visitors about the different components of Boston NHP and how they relate to one another, so visitors do not miss out on things they may be interested in.

Boston African-American NHS

This park receives many educational groups, from kindergarten through graduate school, as well as church and business groups with particular interests. They run a *People and Places* educational program, aimed primarily at local schoolchildren in 3rd and 5th grades, but presumably an enhanced information system would help to provide a wider range of interpretive and education materials.

The site manager hopes to gain more flexibility in accommodating visitors who arrive at off-hours. An information system might help to notify visitors of the scheduled tour times, while also providing interpretive information to those visitors who are unable to come at a time when a tour is scheduled.

Boston Harbor Islands, a national park area

Some people visit Boston Harbor Islands for recreational purposes, while others are specifically interested in the islands' history or in the lighthouse. The park offers several guided tours to enhance the interpretive experience. A traveler information system for the park should enable potential visitors to learn about the islands, in order to better choose among their options for visiting and to learn more during their visit. Park staff also plan to run teachers' institutes in the summer, in order to enhance BHI's potential to accommodate school groups.

Cape Cod NS

Most visitors to Cape Cod NS are looking for recreational experiences rather than interpretive experiences – they are going to the beach and the outdoors. However, Cape Cod NS does provide significant interpretive and educational opportunities for those interested; themes include the natural surroundings, wildlife, and historic sites (lighthouses, etc.)

Visitor questions focus on: what there is to do: biking opportunities, parking, other basic questions. More specific questions tend to come from people in group tours, especially school groups and teachers. On the website, the park thinks it would help to provide the "Top 10" questions and answers.

Frederick Law Olmsted NHS

Most visitors to the park know something about Olmsted's work; many live near, or have visited, an Olmsted landscape. While the park would like to attract and educate a larger and more diverse public, it has limited resources to do so. One recent example was an Olmsted theme day in an area urban park, from which about 500 visitors were shuttled back and forth to the park aboard trolleys. Park staff are also interested in developing a virtual tour of the site, for mobility-impaired people who cannot access all sections of the site, as well as for those who cannot make the trip.

John F. Kennedy NHS

Visitors to the park know about the birthplace, but benefit from more in-depth interpretation. In addition, park staff would like to develop a virtual tour to accommodate mobility-impaired persons and those who cannot come in person.

Longfellow NHS

Most visitors to Longfellow NHS have some interest in poetry and/or literature in general, in

Longfellow and/or his friends in particular, or in historic homes. A smaller number of visitors are interested in the site's Revolutionary War role, when it served as George Washington's military headquarters. The park would like to convey these themes to visitors, and in particular to expand on the potential of the Revolutionary War link.

Lowell NHP

There is confusion about the Lowell NHP these of: "the park is the city and the city is the park." This idea is built into the park culture, and means in part that even if a visitor to Lowell doesn't go to the park proper, the park still succeeds in its primary mission, which is resurrecting the industrial city.

Minute Man NHP

The locals take the park for granted, like the Paul Revere House. They come more for recreation, for the trail, not for the educational component, but are repeat visitors.

International visitation had been increasing prior to the tragic events of September 11th, 2001. Although foreigners are well prepared, language barriers are a problem. Visitor surveys do not adequately capture foreign visitation data because they are not available in languages other than English. In any case, although foreigners may come for the "shot heard round the world" aspect, visitation is overwhelmingly American (roughly 97%, based on 1994 data). The park has, arguably, more meaning for Americans.

New Bedford Whaling NHP

New Bedford already puts a fair bit of interpretive information on its website, and would welcome the ability to do more. They noted that the public's interest in whaling in general, and *Moby Dick* in particular, seems to have grown over the past few years. An interpretive information system would allow them to pursue these themes in more detail.

Salem Maritime NHS

Aside from some dedicated maritime enthusiasts, most visitors to Salem are drawn to the city for its connections to the witch trials, and only secondarily for its maritime history. However, park staff feel that in many ways their park provides a higher-quality, richer visitor experience than the various witch museums, and they would be interested in exploring Salem's maritime story in more detail. Indeed the superintendent felt that one of the main benefits of any information system would be to allow park staff to provide more sophisticated thematic and interpretative information, rather than handling basic visitor enquiries.

Saugus NHS

Because of the nature of the park, Saugus gets a relatively large number of research requests from scholars, and the website contains a range of research materials on iron working and Puritan industry. Broadening and deepening this range of materials through an advanced information system would be useful in helping the park serve these scholars. And while most visitors to Saugus are already fairly well-informed about the park and its significance, a richer store of interpretative information would also allow these "aficionados" of industrial history and iron working to learn more about the park before or after their visit.

***Regional Coordination***

Adams NHP

Adams shares thematic links with a number of other Boston-area destinations, and is closer to downtown Boston than many visitors might realize. Park staff are keen to provide visitors with information on these links and to allow visitors to plan a more coordinated trip to Massachusetts. Adams NHP staff are particularly interested in promoting links between NPS parks in the area, since there are so many to which Adams is thematically linked (e.g. to Boston and Minute Man via the Revolutionary theme, to the African-American heritage site via John Quincy Adams' role in the *Amistad* case, to Longfellow through American literature).

They are also willing to work as partners with local tourist boards, chambers of commerce, and other non-NPS historic sites, but efforts to date have not been as fruitful as hoped for. They have also not had much success in working with other public sector entities such as the MBTA and Mass Highway.

Blackstone River Valley National Heritage Corridor

They do a monthly calendar with partners and the tourism council – 80 sites for brochure drops. Press releases: 20 outlets, including local papers. A marketing program is in place with Massachusetts and Rhode Island. They do videos with local cable channels & the History Channel, and a local radio show once a month, doing this since 1994.

Boston NHP

Tourists arrive at the park's visitor center with questions that are not just about park facilities. Therefore, much information is gathered, distributed, and communicated at the Center about other area attractions, restaurants, things to do, etc. This should be kept in mind when designing a traveler information system.

In addition, a non-NPS visitor center in Boston has in the past provided erroneous information about the operation of NPS facilities; this had to be worked out by phone, after a number of visitors were disappointed upon arrival at the park and were not able to do what they had planned. Therefore, information exchange with other institutions that cater to tourists should be improved and made more efficient and up-to-date.

Boston African-American NHS

This park is linked to a number of other Boston-area sites via thematic ties to African-American history, Boston history, and the Underground Railroad. Staff are interested in promoting these links and raising awareness of the Boston African-American NHS among visitors to these other sites. Visitors also tend to combine a visit to the NHS with other sites in downtown Boston, such as Faneuil Hall.

Boston Harbor Islands, a national park area

BHI's location presents many opportunities to coordinate with other area tourist attractions, including Boston NHP, Adams NHP, the JFK Library, and others. A joint initiative with the JFK Library to better penetrate area hotels is planned. Park staff are also interested in working with Boston neighborhoods to raise awareness of BHI among their residents.

Cape Cod NS

There are other visitor centers with which the park collaborates: Cape Cod and Hyannis Chambers of Commerce. But Cape Cod NS cannot provide its brochures to these visitor centers due to lack of funding. Also, each town in the area runs its own beach system and chamber of commerce, making for a somewhat disjointed information system; improved coordination among these groups and Cape Cod NS is a priority. The goal is not so much to *promote* visitation (as the area is already quite congested) but to make visits go more smoothly and to accommodate the inevitable increase in visitors.

In response to heavy visitor demand, the Park's literature does provide information on whale watch cruises and bike rentals – these are the only two categories of "private sector" information provided. Only basic information is provided: contact information, alphabetically listed.

In addition, the park is considering introducing a touch-screen kiosk at the Provincetown Visitor Center, to be operated by the Chamber of Commerce (for restaurant and other visitor information).

Frederick Law Olmsted NHS

The staff at this site would welcome a program that created regional and thematic tours for visitors, linking their story with related NPS and other sites in the region. They would welcome increased visibility for the site at the downtown NPS visitor center. The same NPS team that manages the JFK birthplace in Brookline and the Longfellow NHS in Cambridge manages Olmsted NHS. Therefore, visitors are often reminded of the opportunities available at the other two sites.

John F. Kennedy NHS

The park has an annual educational program with the nearby Edward Devotion School on Harvard Street in Brookline, but staff feel there is potential for more educational programming. The park would also support efforts to facilitate combined visits to the several Kennedy-related sites in the region, including the JFK Library.

Longfellow NHS

The park is managed by the same NPS team that manages the JFK and Frederick Law Olmsted National Historic Sites in Brookline. Therefore, visitors are often reminded of the opportunities available at the other two sites. In addition, there is still potential to expand the park's profile in the NPS visitor center in downtown Boston. The park also has several thematic links to other area attractions, and staff are especially interested in promoting the park's links to other area Revolutionary War sites.

Lowell NHP

There is a mix of people: day-trippers and people doing several things in New England in the same day. 30% of visitors to Lowell also go to the New England Quilt Museum and 35% also visit the American History Textile Museum, both in Lowell. About half of visitors say that Lowell NHP is their primary destination; one-third says it's one of several destinations.

Minute Man NHP

The park's role in Greater Boston is a tough question, but there is a need to be better connected to the area. Tourism has increased in the past five years, especially with new tour companies, buses, and guides.

People budget too little time for a visit (~ 2 hours on average) because they don't know how much there is to see/do until they arrive. Many visitors, after leaving Minute Man, head to Walden Pond, the Orchard House, or the Concord Museum.

Marketing is done through the convention/visitors' bureau, and the park pays to have brochures put in hotels and restaurants, as well as information in the Lexington and Concord brochures and at Mass Turnpike info stations. There are marketing partnerships with other Lexington and Concord sites.

Would like more information about park to be available in Boston, at Walden Pond, and in Lexington and Concord.

New Bedford Whaling NHP

NPS staff work very closely with the city of New Bedford as well as with a number of non-Federal 'partner' historic sites, and any future information system will have to work within the context of these existing relationships.

In particular, it seems clear that park staff would like to increase visitation at their park and to raise the profile of New Bedford in general within the region. Their top priorities for information provision are thus essentially questions of regional coordination: to promote links between New Bedford and Boston and to continue "cross-marketing" between the NHP and other local visitor centers.

New Bedford is also tied thematically into a number of other NPS parks in the region – most obviously Salem and Cape Cod – and improved regional coordination would allow visitors to plan trips to and from these parks more effectively. Visitors to New Bedford also typically visit non-Federal sites and areas such as Plymouth, Martha's Vineyard, and Newport; regional coordination might also be useful here in serving these visitors' interests.

Salem Maritime NHS

Salem NHS operates a visitor information center on a joint basis with the city of Salem and is very active in promoting links between the NPS parks and other facilities in the area – public and private. An advanced information system would provide a new medium for these efforts and expand their reach and effectiveness. In particular, the Salem visitor center also serves as the hub of the Essex heritage area, and the superintendent feels that improved coordination with Essex should be a feature of any new information system.

Saugus NHS

Saugus is thematically tied to a number of other NPS and non-NPS sites throughout the region – e.g. to Lowell through industrial history and Boston and Salem through the theme of early American life. A traveler information system could help strengthen these links and assist visitors in building a trip to the regional around a particular thematic interest.

Coordination with the town of Saugus and local environmental and business groups has also grown over the years, and park staff would welcome any opportunities to foster these connections.

***Real-Time Visitor Information***

Adams NHP
Provision of real-time traveler information would help Adams cope with, among other things, the Central Artery Project-related changes to the routes to and from central Boston. Real-time information on waiting times could help manage the flow of visitors through the park.

Boston NHP and Boston African-American NHS
Boston often experiences severe traffic congestion, and the parking situation becomes complicated during large-scale public events. However because of the large number of approaches to the city and the park facilities, any attempt to convey such information in real-time is likely to be extremely complex and difficult to implement.

Boston Harbor Islands, a national park area
Real-time information about travel to the park's ferry docks could be useful but, as in the case of the other National Parks in and around downtown Boston, such an initiative would be extremely complex. Real-time information about regular ferry operations may not be necessary, but could prove helpful in case of delays, poor weather, special events, and other special circumstances.

Cape Cod National Seashore NS
The park would like to see enhanced use of Intelligent Transportation Systems (radio messages, electronic signs) to provide information to drivers earlier in their trip – so they can plan ahead. This might help the congestion problem, as well as to balance out the use of resources – e.g. by advising visitors as to which beaches are less crowded.

Lowell NHP
The park has a Traveler's Information Station (TIS), which is advertised on area highway signs.

New Bedford Whaling NHP
Provision of real-time traveler information would help New Bedford keep its visitors abreast of changes on the highway routings to and from Boston, Providence, and Cape Cod. The one dynamic sign currently on one of the highway approaches to New Bedford is updated daily, and often several times per day, particularly during special events. New traveler information AM radio station was scheduled to be operating by the summer of 2002.

Salem Maritime NHS and Saugus NHS
Provision of real-time traveler information would help Salem cope with, among other things, the Central Artery Project-related changes to the routes to and from central Boston.

***Web Design Considerations***

Adams NHP
The website is active, and undergoes periodic updates and additions.

Blackstone River Valley National Heritage Corridor
The website has a main site that links to more detailed information and to other organizations, such as Massachusetts Department of Environmental Management. A quarterly calendar is posted. There *was* one dedicated web person but it was a burden as a specific assignment and so Blackstone Valley is working on a cooperative management agreement with the Blackstone Valley tourism council. About 10 hours a month are required. They have some web projects in mind, such as a page for the B.V. Institute, and information on land-management issues and pollution. Possible links to the B. River Watershed Council, the Educators' Network, the Visitor Center Collaborative (to link the visitor centers).

Boston NHP
Currently the park's website does not require a lot of staff time, about 10 hours a month. The website is updated for special events and with other updates, and should continue to be updated at least to this extent in the future.

Boston African-American NHS
Park staff like to process information requests by U.S. mail, as they have been doing, because of the personal touch and the human contact they have with visitors prior to their arrival.

Boston Harbor Islands, a national park area
BHI maintains an ambitious website, with plenty of information about the islands and tips on travel to the docks. A link to the MBTA's website is provided for those who may arrive by public transportation. One staff member spends about 10 hours a month on the website, and consultants have provided further assistance. The park receives about 200 email requests per season.

Cape Cod NS
One member of the park staff spends about 10 hours a month on website maintenance, posting and removing press releases, job announcements, etc. They do not receive email – they told us they disabled the email link because they had no time to respond.

Frederick Law Olmsted NHS
One staff person spends about 1-3 hours a week on the web pages of Olmsted, Longfellow, and JFK National Historic Sites, posting updates, special events, and information on educational programs. Olmsted's expanded website has a master list of the documents at the site, but there is no practical way to post the documents themselves on the Internet; the expanded website was not being maintained at the time of the interview, and requires a contractor for maintenance. Staff have developed an on-line Olmsted Research Guide in collaboration with the US Library of Congress. The park staff prefer email inquiries to phone calls. The web page has links to nearby attractions and information sources. Staff are interested in developing a virtual tour of the park.

John F. Kennedy NHS

One staff person spends about 1-3 hours/week on the web pages of Olmsted, Longfellow, and JFK National Historic Sites, posting updates, special events, and information on educational programs. The park staff prefer email inquiries to phone calls. The web page has links to nearby attractions and information sources. Staff are interested in developing a virtual tour of the park.

Longfellow NHS

One staff person spends about 1-3 hours/week on the web pages of Olmsted, Longfellow, and JFK National Historic Sites, posting updates, special events, and information on educational programs. The park staff prefer email inquiries to phone calls. The web page has links to nearby attractions and information sources. Staff are interested in developing a virtual tour of the park.

Lowell NHP

Lowell's website is considered 'fairly ambitious,' but plans are in store for more. People like the website and leave printouts behind. The website is updated daily and includes news releases, an events calendar, links to events, and information on the Tsongas Center and the partnership with University of Massachusetts. More interactivity is planned – videos illustrating machine operation, and opportunities for website visitors to put themselves in the shoes of a Lowell resident in history.

Minute Man NHP

Although foreigners are knowledgeable about the history of Minute Man, language barriers are a problem. There is no web counter, and the website manager has other responsibilities. But the web is believed to be popular; visitors leave behind printouts from the website. The park would like to do more with it (add exhibits info, pictures, fact sheets, interactive map). There are few e-mails; questions about special events or historical-type questions. Key web activities take place in November, December, March, and April.

New Bedford Whaling NHP

In designing a web-based information system, it is important to keep in mind the close cooperation between the Park and the City, and the need to coordinate information and updates.

Salem Maritime NHS

Park staff felt that the NPS and city websites, along with the AAA guide, were the top information sources for visitors, and that overseas visitors were more likely to have done research and planning beforehand. One staff person from the Park Service and one staff person from the city are charged with maintaining the Internet presence; the website is updated weekly with event listings and the like. These staff also respond to e-mail, but at present the volume of e-mail is very low – perhaps five messages per week, often from schoolchildren with requests for historical information. Still, the Salem NPS website received about 250,000 hits last year.

In the future, the Salem Maritime staff would like their website to provide more links to related scholarly research, to local resources, and to other local attractions. More generally,

in the future they would like to offer a wider range of information *formats* and *options* to their visitors, using whatever approach seems to work best for the individual visitor.

Saugus NHS
Because of the nature of the park, Saugus gets a relatively large number of research requests from scholars, and the website contains a range of research materials. It also provides practical information and is updated with special events listings. The website is updated locally by staff.

***Other Considerations***

Blackstone River Valley National Heritage Corridor
Blackstone Valley Heritage Corridor is an NPS 'affiliated area,' encompassing 24 cities/towns between Worcester and Providence. Focus is on the American Industrial Revolution, and on river recovery – allowing visitors to appreciate recreational opportunities (as listed in 1996 plan). Also, differing from most NPS units (although not Lowell), economic development is one of the mandates of the heritage area. There are four main facilities – a wildlife sanctuary, a facility operated by Massachusetts Department of Environmental Management in Uxbridge, a visitor center in Woonsocket, Rhode Island operated by the Rhode Island Historical Society, and a B.V. visitor center operated by the B.V. tourism council. Rangers are not tied to specific sites, which makes programming difficult.

Boston Harbor Islands, a national park area
BHI is a relatively new National Park and access to the islands is still at its early stages. As more islands become accessible and new routes and schedules are developed, a traveler information system should convey such changes to potential visitors.

Cape Cod NS
Park staff are extremely keen on using visitor information to raise the profile of resource conservation, and to impress upon visitors the importance of making "low-impact" environmentally friendly visits. The staff see this as a key component of any future enhancements to their information systems.

An important and unique group to keep in mind is the residents of Cape Cod NS. These are people who reside, seasonally or year-round, in the six towns of the National Seashore or within the designated National Seashore area itself.

Frederick Law Olmsted NHS
The park will be closed to the public during renovations due to start in about two years.

Longfellow NHS
While some parts of the site's grounds are currently open to the public, the historic house has been closed for the past three years while it underwent major renovations; it is due to be reopened in June 2002.

Longfellow provides poetry programs for 3rd and 4th graders. The park is working on a Historic Homes program for higher-grade levels in conjunction with the National Trust, which may begin in 2003 or 2004.

Lowell NHP

The July folk festival is the biggest special event, but there are others, such as Boarding House Park evening activities (15 nights during the summer, each night drawing 1,000-2,000 people). Summer is the busiest season, and fall weekends are also busy, but visitation tapers off from the summer as school visitation increases. Except for special events in February and April, visitation is low between November and May. School groups come consistently throughout the winter, even in September, because there is much demand and they must schedule their visit in order to be able to access the resources. The Tsongas Center in the Boott Mills is a partnership between LNHP and University of Massachusetts/Lowell, used as an educational center for school groups; it includes classrooms, as well as spaces for exploring some of the park's themes hands-on.

There are links to the convention and visitors bureau for hotel information, etc. A hotel in town provides information on LNHP to visitors. The park also produces various newspapers and newsletters and has an arrangement with a distributor to place a card throughout the Boston region (in hotels, etc.). There is about 1 news release every two weeks. There is a "kids' week" flyer to local schools, and a Tsongas mailing list to 3,000-4,000 teachers. The Folk Festival is sponsored by local businesses like the Lowell Sun.

Minute Man NHP

The park's role in Greater Boston is a tough question, but there is a need to be better connected to the area. Tourism has increased in the past five years, especially with new tour companies, buses, and guides.

New Bedford Whaling NHP

New Bedford staff have some concerns that their park is not given more prominence at the NPS visitor center in downtown Boston. They feel strongly that New Bedford is inherently linked to the Boston region, and that NPS staff in Boston need to do more to raise awareness of peripheral destinations such as New Bedford. They also wonder how much an enhanced information system will really improve the situation, given that the existing information sources (e.g. printed brochures) could be given more visibility in Boston.

Park staff were very upbeat about the prospects of rail service to Boston, and hope that a new multi-modal transportation hub in New Bedford would enable people to leave their cars behind and thus reduce congestion and pollution.

Salem Maritime NHS

Park staff make use of a centralized visitor center in the downtown area that provides information on both the park and other facilities in Salem and throughout Essex County, including the Salem Witch Museum and the House of Seven Gables, both big tourist draws. Partnerships between Salem NHP, the City of Salem, and Essex County are extensive. The Park Service works very closely with the city of Salem to provide visitor information through the downtown visitor center. Longstanding competition among the various tourism entities

and businesses in the city prevented coordination of visitor services until the city and the NPS cooperated in the establishment of the Visitor Center. In addition to information about local attractions, the center also shows a film about Essex County (now the Essex National Heritage Area), which will soon be available in multiple languages.

The staff noted that Salem is an inherently confusing place, with twisting streets and poor signage, and that it is not only tourists who get lost. An enhanced information system could also help in efforts to link Salem Maritime to the Essex heritage area. As it is, the Essex area's somewhat unusual designation and its multi-site orientation have a tendency to confuse visitors. The superintendent feels strongly that any improvements to Salem's informational efforts have to improve coordination to Essex.

Saugus NHS

Saugus is part of the Essex heritage area and is considered the southern gateway to that area. Thus, the signage and information efforts are coordinated between Saugus and Essex; signs are generally satisfactory. The park has also been working more and more closely with the town of Saugus and local environmental groups on promoting and managing tourism. Kesselman said that the park helps to give Saugus "tone"; the town is otherwise known for big-box retailers, strip malls, and restaurants. Tourism outside of the park is unknown.

At present there are no significant problems in accommodating the level of visitation and providing tours. However, there are plans to change the circulation patterns at the park in order to improve accessibility and to increase levels of visitation to the Iron Works House.

# APPENDIX 2: TRAVELER INFORMATION SYSTEMS - KEY CONSIDERATIONS

***Traveler Information System Goals***

The envisioned traveler information system would serve the interests of the National Parks of Massachusetts, their visitors, and the communities in which they are located. Information about the parks, how to reach them, and how to get around them is currently available for each park independently. A coordinated traveler information system for the Massachusetts parks would enhance visitors' capacity to obtain the information they need, plan their trips, and benefit from the thematic links among the numerous Federal and non-Federal destinations in the region. Such a system should: (1) provide trip-planning information, (2) enhance visitors' interpretational and educational experiences, (3) facilitate regional coordination, (4) include real-time visitor information where appropriate, (5) meet the website needs of the parks, and (6) be sensitive to any other special considerations of the individual parks. The list of themes below encompasses the major concerns that were identified during our investigation of the relevant parks.

All of the concepts below apply to at least one park, and in many cases to several parks. The list is drawn from interviews and other research.

***Trip-Planning Information***

*Travel to the Park*

Urban context

- Several travel modes available: when there are several alternative travel modes available and used a traveler information system needs to cover all of these modes.
- Emphasize alternative modes: emphasizing alternative modes is a priority where traffic congestion, parking prices, and air pollution are a problem.
- Driving is difficult: driving to some of the parks is difficult due to a complex street network, insufficient signage, and challenging traffic conditions (BNHP, Adams, Lowell, Boston African-American, Salem, etc).
- Parking is expensive: parking tends to be expensive within Boston; visitors should be aware of this in advance so they can make alternate travel plans.
- Not clear where to direct visitors: it is not always clear where to direct visitors, especially in urban settings; i.e. to a specific facility? Visitor center? Parking garage? Furthermore, directing visitors to one place often creates a need for additional signage.
- Reservations system: some parks take reservations, especially for school groups and other large groups; in some cases reservations are required (Boston African-American, Adams, Lowell for school groups). However parks note that groups often show up at their park without prior notice.

Non-urban context:

- Parking congestion: parking spaces at Cape Cod are often used to capacity, resulting in long periods of car idling and frustrating waits.

Urban and non-urban context:

- Most visitors drive: driving directions are an important component of a traveler information system.
- Public transit is limited: such conditions should be made clear to potential visitors.
- Road congestion: most urban parks, Minute Man, Cape Cod are in heavily congested areas during peak season and rush hours, making it frustrating to drive to them and around their various facilities.
- Advice depends on mode of travel: travel and arrival advice often depends on the mode of travel; for example, someone visiting Boston NHP by car would get different directions as well as advice on where to start than someone arriving by train.
- Conditions differ by season and time of day: travel conditions may differ by season, day of the week, or time of day. A traveler information system could give advice on best routes and expected travel times depending on origination point. This is especially true when the visitor has a more complex itinerary or needs to catch a specific ferry, train, or park tour.

*At the Park*

Urban context

- Reluctance to walk: visitors can sometimes be reluctant to walk among park facilities, especially in an urban environment or where route conditions are not attractive (Lowell, Adams, BNHP crossing to Navy Yard).
- Long delays upon arrival: during peak season, visitors can be delayed at the entrance to park facilities due to long lines and maximized capacity (Adams, BNHP at Constitution).

Urban and non-urban context:

- Park has various facilities: many of the parks have several facilities. In some parks most people can cover the distances between facilities by waking (Boston African-American, Salem, Freedom Trail, New Bedford), while in other parks alternative modes are preferable or required (Adams, Lowell, Cape Cod, Minute Man, Blackstone River Valley, Boston Harbor Islands).
- Shuttle/trolley at park: some parks have shuttle or trolley service among their various facilities.
- Shuttle/trolley is seasonal: when trolley or shuttle service is seasonal, visitors should be made aware of the implications this has for their visit, especially for getting around the park.

- Entrance fee: some facilities charge entrance fees or multiple fees in the case of the Freedom Trail. Visitors should be notified in advance.
- Various tour program options: visitors should be aware of the content, location and schedule of park programs ahead of a visit.
- No public toilets: when no public toilets are easily available, visitors should be warned so they can plan to find toilets elsewhere.
- Information for groups with children, seniors, and other special needs: any likely difficulties and/or special needs information should be readily available.

***Visitor Profile***

The National Parks of Massachusetts receive a variety of visitors, depending on the specific park, season, time of week, and other factors. A traveler information system for the parks should take into account the characteristics of their visitor profile in order to better cater to potential visitors. For example, various forms of media (Internet, signage, advertisements, brochures) and types of information (park operations, in-depth research material) are more effective than others in reaching a particular audience. The list below highlights some of the visitor characteristics about which we have collected information.

Urban and non-urban context:

- Mix of visitors: many parks get a mix of visitors from different places, of different ages, speaking different languages, etc. Furthermore, some visitors come independently, for others the visit is within the context of school, and others arrive as part of tour groups.
- Special interest: some parks have an appeal to people with special interests or hobbies, and may like to cater to such groups.
- Seasonal patterns: in many cases, the types and numbers of visitors and visitor groups vary by time of year; in most parks, general visitation peaks in summer, school-based visitation peaks in spring, and tour groups tend to peak in both high and shoulder seasons.
- Many repeat visitors: repeat visitors tend to know more, but may also be less likely to inquire about, and keep up with, new information.
- Many local visitors: while this depends on season, in some parks a large share of visitors are local; for example, local visitation to Blackstone River Valley and Boston Harbor Islands is particularly high. In Cape Cod, many local residents refrain from visiting the park during the busy peak season, instead spending their time there off-season.

***Miscellaneous Concerns***

Urban and non-urban context:

- Seasonal/weekly closure: visitors should know when a park or facility is not open year-round or throughout the week.

- Lodging information: many parks receive inquiries about lodging options.
- Dining information: many parks receive inquiries about dining options.
- Large-scale local events: some parks are in towns that hold large public events, generally on an annual basis.
- Local event information: many parks provide information on local events that are organized by the park, by their locality, or by other institutions.
- Information on other local attractions: many visitors inquire about nearby attractions outside the park.
- Information on non-local destinations: many visitors inquire about destinations at a drivable distance, but not in the immediate area or town in which a park is located.
- Distance and travel time to other destinations: visitors often make plans to visit multiple locations without having sufficient information about distances and travel times; providing such information would assist their planning. To the extent possible, travel times should be corrected for season and time of day.
- Timing of trip planning: visitors who plan far in advance may have different information needs than those planning in the short-term; some parks receive few pre-trip inquiries, while others receive many.
- Visitor center not fully utilized: in some parks, many visitors are unaware of the visitor center. If the park believes that visitors should start at the visitor center, the traveler information system should be used to emphasize this message (for example: Minute Man).

***Interpretation and Educational Experience***

Non-urban context:

- Recreation-based visitation: certain groups of visitors, especially local residents, to NPS parks are more interested in outdoor recreation than historical or interpretive information

Urban and non-urban context:

- Visitors have little information about Park on arrival: visitors often arrive with only a vague sense of what facilities and thematic information are on offer at a park.
- Numerous thematic links: there are a number of thematic links to other destinations, both within and outside the NPS, that visitors may not be able to fully explore without better information.
- Educational programs for schoolchildren: the park runs educational programs, often related to school curricula; some parks would like to do more in this area.
- Park is not main attraction: many visitors are drawn to the area for other reasons, and an NPS park visit is a secondary priority.
- Confusion about what constitutes the park: visitors are not clear which facilities make up the park, particularly in cases where the land ownership patterns are

complex (Blackstone Valley, BNHP, Salem, Boston Harbor Islands, Lowell, New Bedford).

- Language barriers: there is a lack of orientation and/or interpretive materials in languages other than English.
- Scholarly material: the park provides access to historic archives or other scholarly material, e.g. through its website.
- Information for non-visitors: the park serves as a resource for historians and scholars seeking relevant information, and/or wants to provide more information to those who cannot make the trip to the park.

***Regional Coordination***

Urban and non-urban context:

- Numerous thematic links: the park is linked to other Federal and non-Federal destinations in the region via interpretative and thematic links.
- Information on non-park facilities/activities: visitors seek out information not just on NPS facilities but also on other nearby points of interest.
- Independent sites nearby: some parks are near other, non-NPS tourist sites. In some cases, such parks coordinate activities and/or information provision with nearby sites (New Bedford, Salem), while in others further opportunities for coordination potentially exist.
- Visits combined with other destinations: many visitors plan their trip to an NPS destination as part of a larger tourism 'package.'
- Marketing partnerships with city/other sites: the park works in partnership with its host city or other groups to promote tourism in the area, or to provide visitor orientation services.
- Nearby visitor center(s): a non-NPS visitor center near a National Park presents opportunities for cooperation, as well as challenges associated with the need to maintain additional relationships and conduct effective information sharing.
- Brochures in hotels/restaurants: some NPS parks promote themselves via brochures in local establishments.
- Doubts about working with chambers and other non-NPS sites: for the most part, information on local dining and lodging is thought to be handled better by outside partners, in particular to avoid appearing to give preference to some private establishments over others. However, attempts to work with outside partners, such as chambers of commerce and local tourist bureaus, have at times met with difficulties.

***Real-Time Visitor Information***

Non-urban context:

- Parking situation: updated parking information could help manage the flow of visitors, make better use of existing parking facilities, and reduce visitor

frustration (Cape Cod).

Urban and non-urban context:

- Congestion problems: providing updated traffic information might help mitigate the environmental and visitor-satisfaction problems associated with congestion.
- Waiting times at Park facilities: updated information on peak demand and waiting times could help smooth the flow of visitors and reduce overall waiting times (Adams, BNHP at USS Constitution).
- Interest in real-time information: some parks have expressed interest in providing some sort of real-time information (Adams, Cape Cod, New Bedford, Blackstone Valley).
- Have some real-time information: some parks already provide some type of real-time information (Lowell: AM radio; New Bedford: dynamic highway sign).
- Very complex for NPS to provide such information: the information's reliability depends on outside actors (e.g. the Central Artery Project) over which NPS has no control. At the same time, the information needs to be completely updated in order to be reliable.

***Web Design Considerations***

An Internet presence would be an integral and new part of any combined traveler information system for the National Parks of Massachusetts. Below are some of the considerations important in designing such a presence.

Urban and non-urban context:

- Staff time: required staff time for maintaining the traveler information system should be kept in mind; in most cases one staff person is assigned this responsibility and it is currently not a heavy burden.
- Updates: providing information on local events and activities requires updating the website; currently, some websites are updated daily, and some weekly.
- Email preference: some parks have indicated a strong preference for email correspondence with potential visitors, rather than telephone calls. These parks noted that email communication is more efficient for them.
- Seasonal patterns: based on the schedule of events and activities, some parks perform more substantial updating at certain times of the year.
- Partners: different parks have partnerships with their city and other local groups, which should be reflected in any web design; in Salem the partnership goes as far as joint-maintenance of the park's and city's web presence.
- Links: the parks provide links to various outside Internet sites.
- Website traffic: some of the parks do not currently keep track of website traffic and, among those that do, only very basic statistics are maintained.
- Interactive map: some park staff have considered including an interactive map on their website; this could be done for the National Parks of Massachusetts together.

- Scholarly material: some parks cater to researchers who request scholarly material.
- Information formats: information formats should cater to visitor needs and meet ADA requirements.
- Virtual tour: several parks are interested in developing a virtual tour of their facilities, to accommodate mobility-impaired persons who cannot access all of the sites and others who cannot travel to the park at all.

***Other Considerations***

Urban context

- Special partnerships: Lowell NHP, for example, has a close operating partnership with the University of Massachusetts; they jointly operate the Tsongas Center, which houses educational programs for school groups. A traveler information system would have to accommodate the nature of this partnership in terms of information provision, staff time, Internet links, and other relevant factors.

Non-urban context:

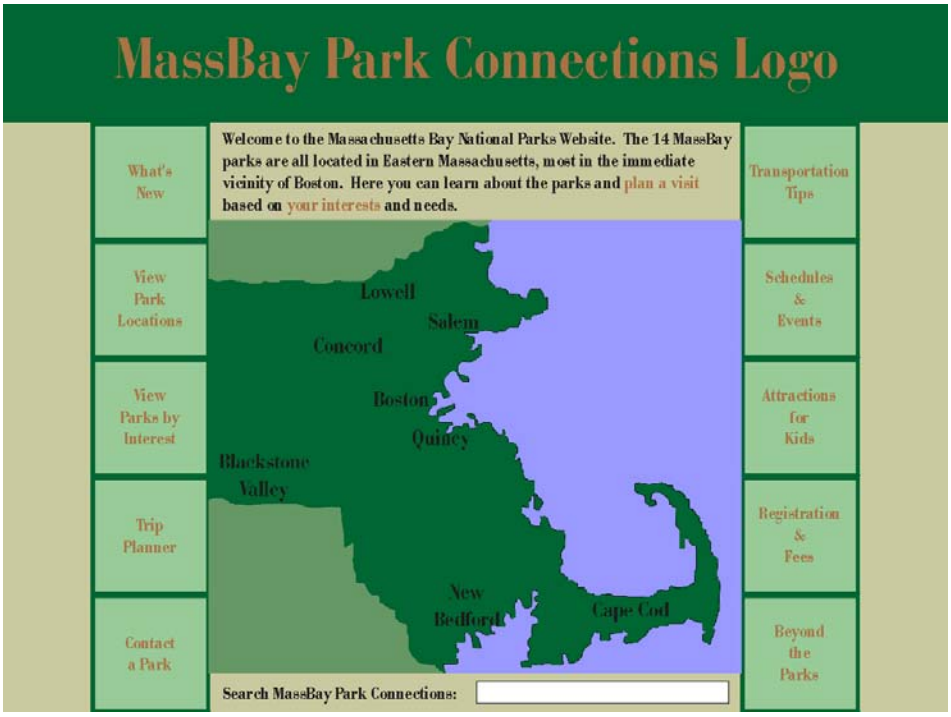
- Resource conservation: some parks would like to use visitor information to raise the profile of resource conservation and emphasize the importance of "low-impact" environmentally friendly visits.

- Residents: at least one park (Cape Cod) has a unique constituency to keep in mind – people who reside, seasonally or year-round, in the area encompassed by the park.

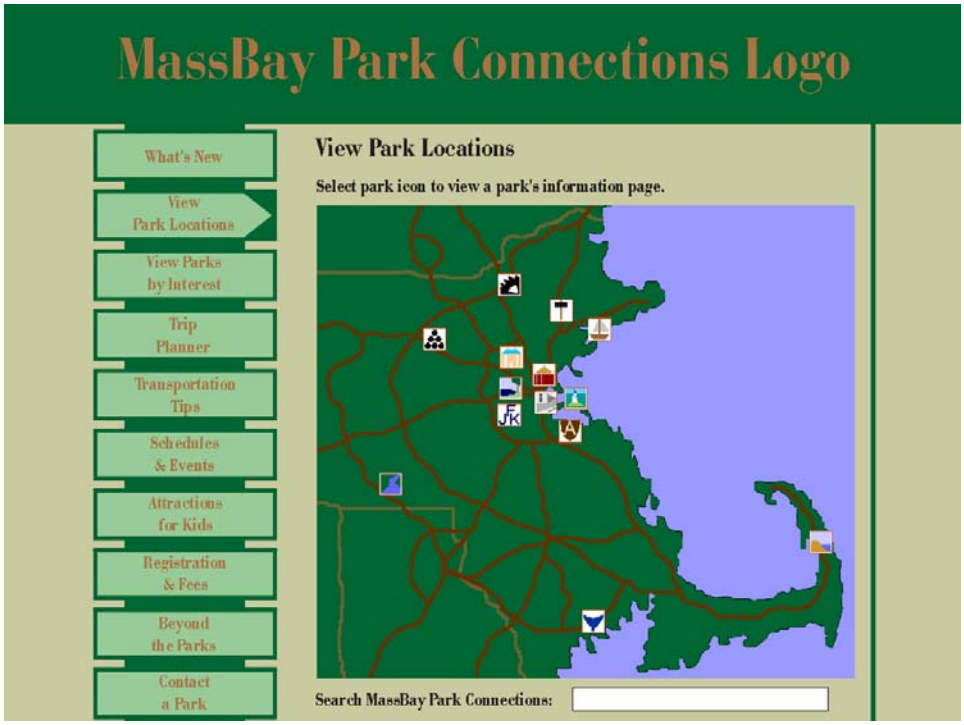
Urban and non-urban context:

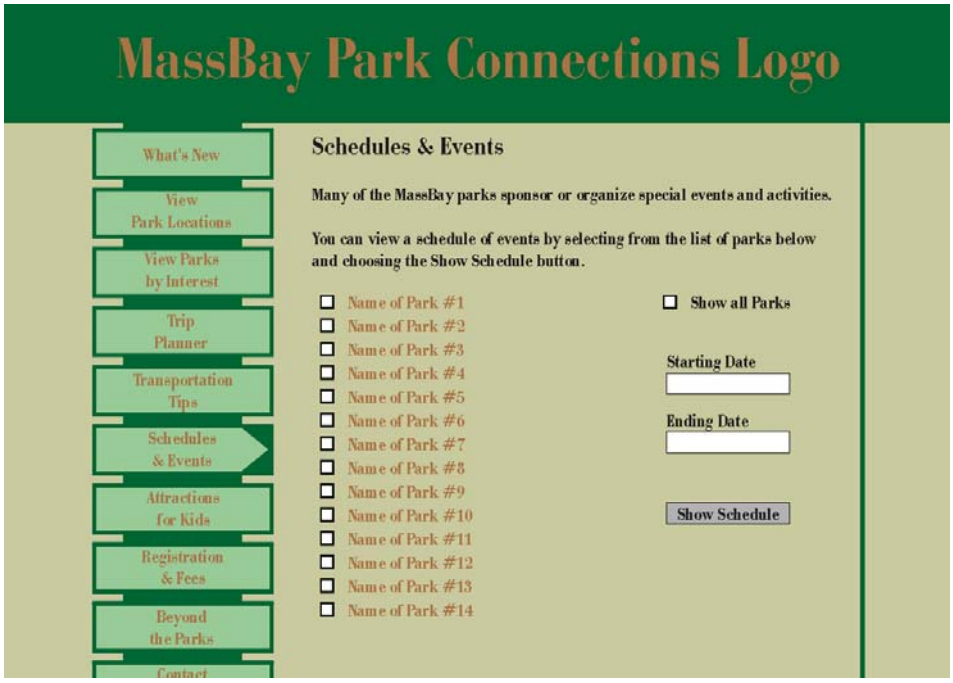
- Print material: every park produces print materials, but to a different extent; the traveler information system should be consistent with the format and information in the print materials.
- Park Interaction: some parks have higher profiles than others at the downtown Boston NPS visitor center. A traveler information system should be attuned to how the parks can most effectively work together.

# APPENDIX 3: WEBSITE VISUAL DEPICTIONS

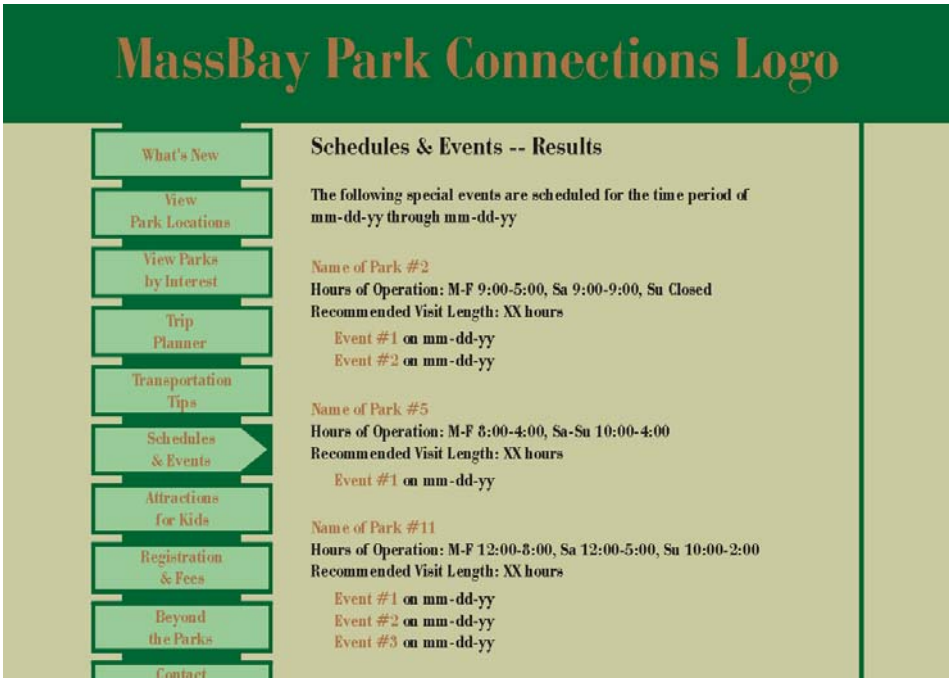



*<u>Top</u>: Visual Depiction 1 – Homepage*
*<u>Bottom</u>: Visual Depiction 2 – Introductory Page*

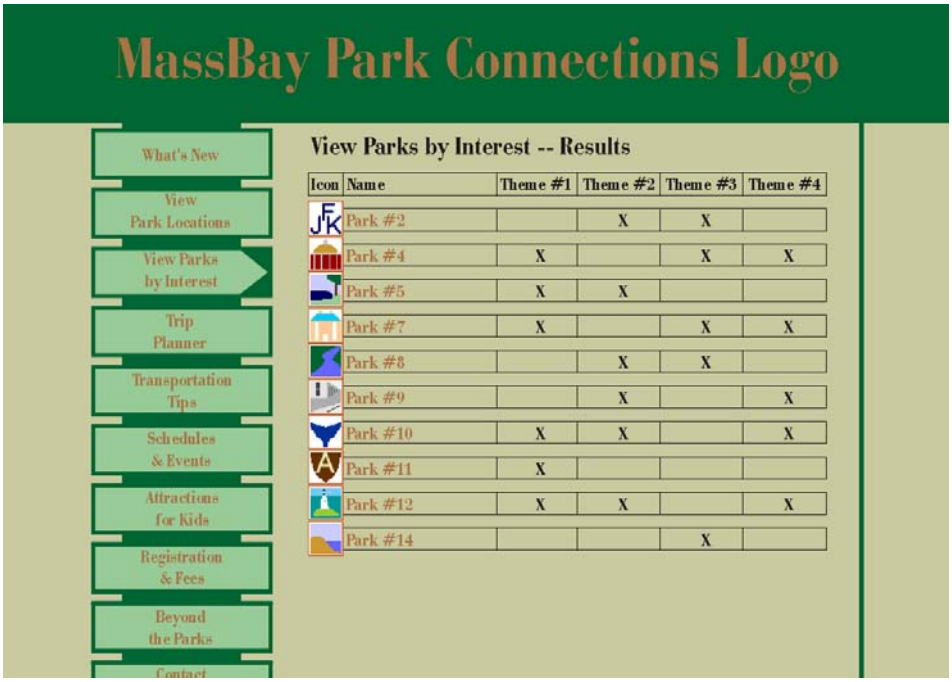




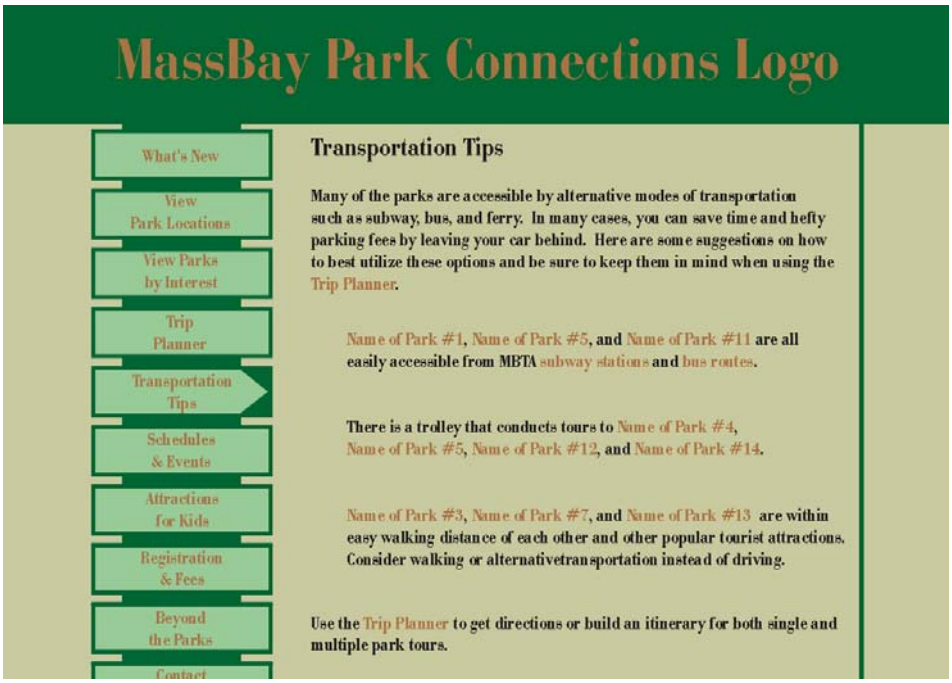

*<u>Top</u>: Visual Depiction 3 – Park Selection Page*
*<u>Bottom</u>: Visual Depiction 4 – Query Page*



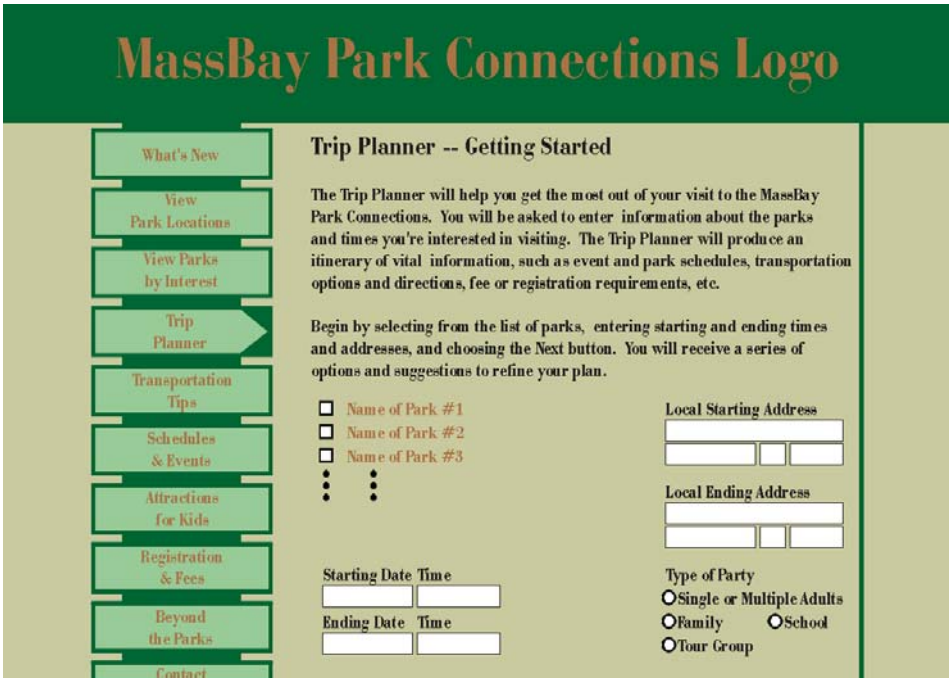
*<u>Top</u>: Visual Depiction 5 – Theme-Based Query Page*
*<u>Bottom</u>: Visual Depiction 6 – Query Response Page*

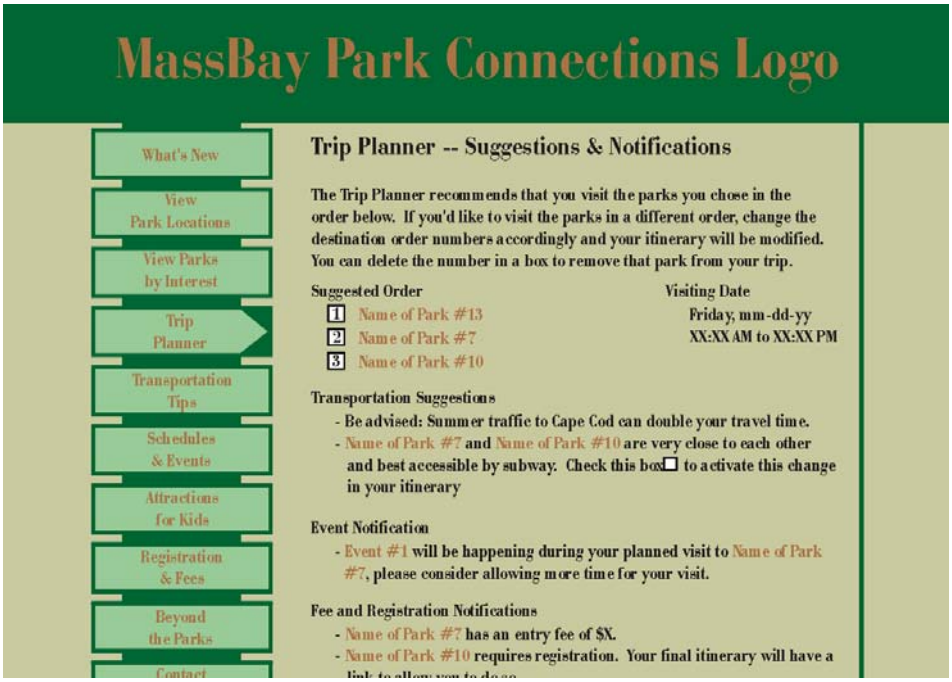



| Icon | Name | Theme #1 | Theme #2 | Theme #3 | Theme #4 |
|---|---|---|---|---|---|
| | Park #2 | | X | X | |
| | Park #4 | X | | X | X |
| | Park #5 | X | X | | |
| | Park #7 | X | | X | X |
| | Park #8 | | X | X | |
| | Park #9 | | X | | X |
| | Park #10 | X | X | | X |
| | Park #11 | X | | | |
| | Park #12 | X | X | | X |
| | Park #14 | | | X | |

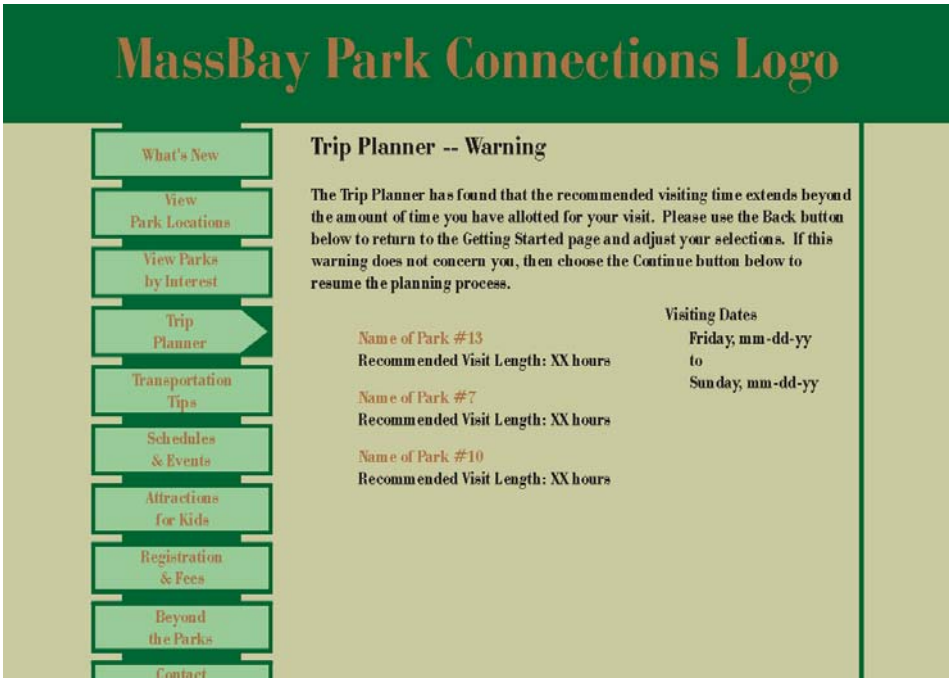


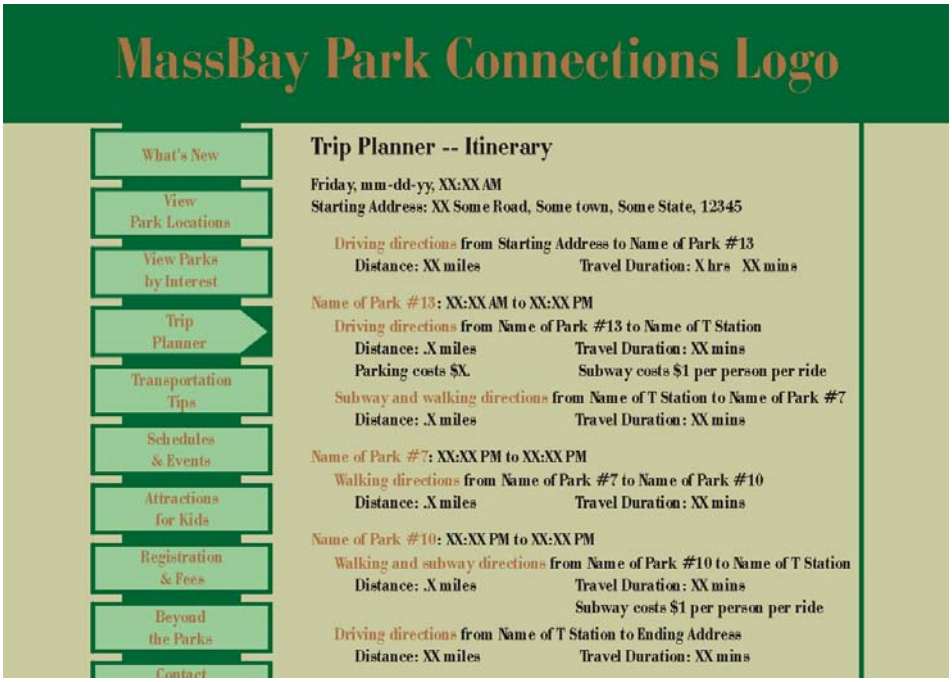

*<u>Top</u>: Visual Depiction 7 – Travel Tips Page*
*<u>Bottom</u>: Visual Depiction 8 – Trip Planner Page 1*



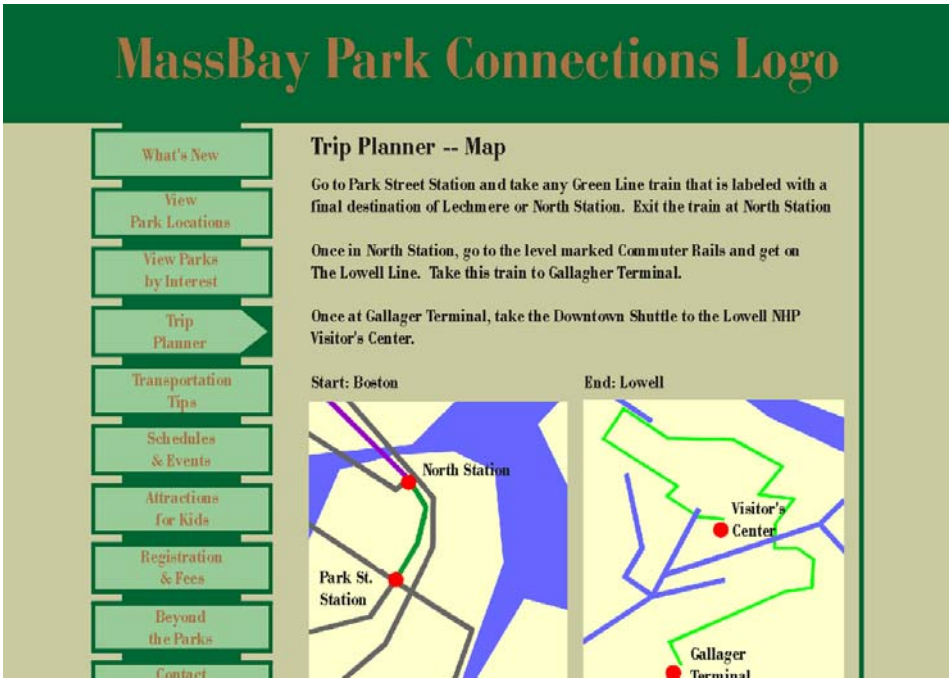


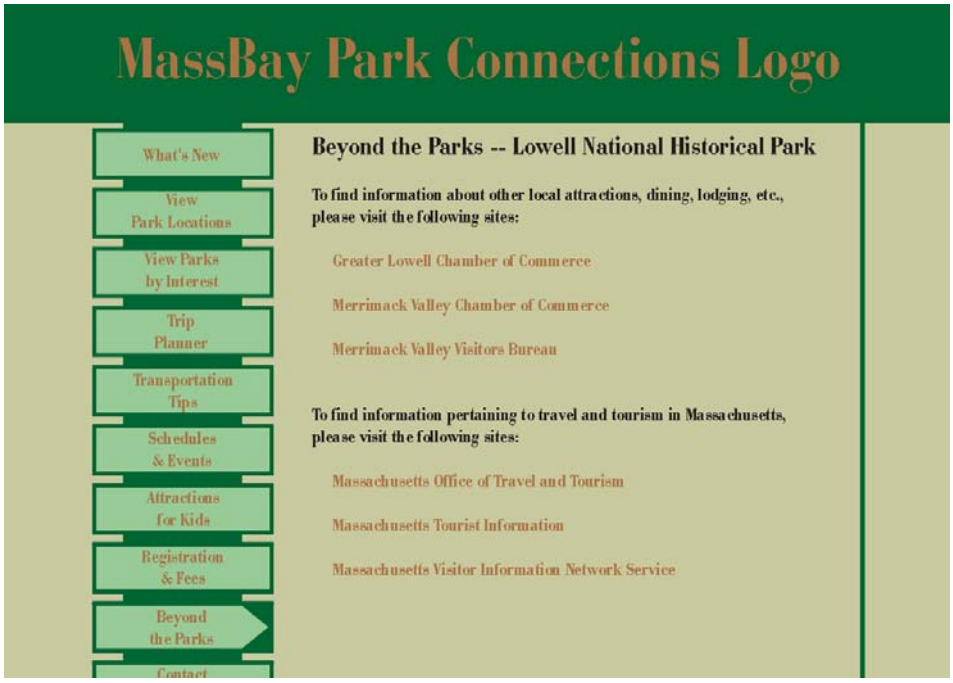

*Top: Visual Depiction 9 – Trip Planner Page 2*
*Bottom: Visual Depiction 10 – Trip Planner Page 3*






*<u>Top</u>: Visual Depiction 11 – Trip Planner Page 3*
*<u>Bottom</u>: Visual Depiction 12 – Trip Planner Page 4*






*<u>Top</u>: Visual Depiction 13 – Link Page*
*<u>Bottom</u>: Homepage Sample 1*

*Top: Homepage Sample 2*
*Bottom: Homepage Sample 3*