



Security Fence and Screening Facilities

Independence National Historical Park
Philadelphia, Pennsylvania

Environmental Assessment

July 2006

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SUMMARY

Independence National Historical Park is federal parkland under the jurisdiction of and maintained by the National Park Service (NPS). Spanning over 55 acres on 20 city blocks within the City of Philadelphia, the park preserves and interprets resources associated with the establishment of the United States of America, including: the site of the meetings of the first and second Continental Congresses and the site at which the Declaration of Independence, the Articles of Confederation, and the Constitution of the United States of America were debated and signed. In Independence Hall – now a World Heritage site – the Declaration of Independence was read publicly for the first time on July 8, 1776. Most notably, the park manages and displays one of the country’s best known and most enduring symbols of freedom and liberty: the Liberty Bell (NPS 2003a).

In response to Homeland Security Presidential Directive – 7, the NPS must improve the current temporary security fence and screening facilities at the Liberty Bell Center and Independence Square within Independence National Historical Park. The purpose of taking action at this time is to allow Independence National Historical Park to protect Independence Hall and the Liberty Bell, national icons. The objectives include:

Improvement of Security – Due to the high visibility and importance of Independence Square, the Liberty Bell Center, and the national icons within these properties and because of increased national security concerns, the park requires protection against acts of crime and terrorism. Required security elements include (1) a permanent facility to screen individuals entering the Liberty Bell Center; (2) the use of the Old City Hall for screening individuals at the Independence Square Complex; and (3) security fencing located around the perimeter of the bell chamber at the Liberty Bell Center and the northern portion of Independence Square.

Preservation of Cultural Landscape Quality – The prominence of the icons and their setting are critical in the design and development of any landscape improvements or additional features on the site. Improvements to the existing secure zones would include the establishment of security fencing and landscaping to inhibit access on foot or by vehicle to these structures by vandals and/or terrorists.

Taking this action will address the need to address the disruption to the cultural landscape from the current temporary screening measures at Independence Square and the Liberty Bell Center.

BACKGROUND

National Park Service policies, coupled with Homeland Security Presidential Directive – 7, the national policy written in response to the September 11, 2001 terrorist attacks on the World Trade Center in New York City and the Pentagon in Washington, D.C., places the responsibility of protecting the nation’s monuments and icons from terrorist attacks on the Department of Interior. These include Independence Hall and the Liberty Bell.

Following the September 11, 2001 terrorist attacks, Independence National Historical Park closed Chestnut Street to vehicular traffic. A threat assessment study conducted at the park in 2002 recommended the creation of secure zones around the park’s national icons and screening of all individuals entering this secure zone, including the closure of the 500 block of Chestnut Street. On April 1, 2003, the city of Philadelphia reopened Chestnut Street to vehicular traffic.

Prior to the re-opening of Chestnut Street, the park was screening visitors one-time only for Independence Hall and the Liberty Bell. With the re-opening of the street, the park was forced to add a second temporary screening facility in the form of a tent on Independence Square. On March 29, 2004, the park assumed a single-screening operation combined with a “safe street” crossing operation. This reduced the need for dual screening, but did not reduce the staffing requirements.

In 2005, the Secretary of Interior and others directed Independence National Historical Park to implement anti-terrorist protection and security at two screening locations, one adjacent to the Liberty Bell Center and one inside the Old City Hall. Old City Hall is owned by the City of Philadelphia and operated by the park under a Memorandum of Agreement (July 14, 1950) that states that the Secretary of the Interior “will exercise reasonable care to prevent damage to, or destruction of, any part of the grounds and buildings or their appurtenances” (Article II (b)).

On March 1 2006, Independence National Historical Park opened a security screening facility in Old City Hall, located at 5th and Chestnut Streets, for all visitors to Independence Hall and other sites on Independence Square. A separate security screening facility for the Liberty Bell Center was located along the east side of 6th Street between Market and Chestnut Streets. These temporary visitor screening facility and anti-terrorism protection measures, including the temporary bicycle barricade, were designed to protect Independence Hall and the Liberty Bell from a person-delivered explosive device. The park is now looking to make these temporary screening measures permanent and reduce the impact that the temporary measures are having on the cultural landscape.

ALTERNATIVES CONSIDERED

This environmental assessment evaluates three alternatives for security fencing and screening facilities at Independence National Historical Park:

Alternative A – No Action Alternative, Continuation of Temporary Screening Measures. The no action alternative includes maintaining the temporary, experimental visitor screening facilities adjacent to the west wall of the Liberty Bell Center (LBC) and within Old City Hall (OCH) and the continued use of bicycle barricades around the Liberty Bell Center and on Independence Square. Bicycle barricades would continue to be configured from Congress Hall to the American Philosophical Society Hall on Independence Square. Additional bicycle barriers would remain around the northern perimeter of the Liberty Bell Center and along some of the interior walkways.

Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred). Alternative B, the NPS preferred alternative, includes the construction of a permanent visitor screening facility at the location of the existing temporary structure at the Liberty Bell Center and maintaining the existing visitor screening facility within the lobbies of Old City Hall (see Figure 2 and Figure 3 under alternative A). A six- to seven-foot high, reversible Iron Palisade security fence would be constructed along the major east-west walkway connecting to Congress Hall and the American Philosophical Society Hall on Independence Square, supplementing the existing exterior brick wall. A short run of fencing would be installed to supplement existing protection around the Liberty Bell Center as well (see Figure 4).

Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence. Alternative C includes the construction of a permanent visitor screening facility at the location of the existing temporary structure at the Liberty Bell Center. The existing temporary screening facility would be removed from Old City Hall and an additional permanent visitor screening facility would be constructed on the grounds of Independence Square south of Congress Hall. A six- to seven-foot high, reversible Iron Palisade security fence would be constructed along the major east-west walkway connecting to Congress Hall and the American Philosophical Society Hall on Independence Square, supplementing the existing exterior brick wall. A short run of fencing would be installed to supplement existing protection around the Liberty Bell Center as well (see Figure 5).

Based on the environmental analysis prepared for this plan, alternative C is considered the environmentally preferred alternative because it would best fulfill park responsibilities as trustee of this sensitive cultural resource; ensure safe, healthful, productive, and aesthetically and culturally pleasing surroundings; and attain a wider range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences. Alternative B is the park’s preferred

alternative because it best meets the purpose and need, responding to Homeland Security Presidential Directive – 7 by providing permanent visitor screening facilities and security fencing.

ENVIRONMENTAL CONSEQUENCES

Impacts of the three alternatives were assessed in accordance with *Director's Order #12: Conservation Planning, Environmental Impact Analysis and Decision-Making* (NPS 2001a). The *Director's Order #12 Handbook* requires that impacts to park resources be analyzed in terms of their context, duration, and intensity. It is crucial for the public and decision-makers to understand the implications of those impacts in the short and long term, cumulatively, and within context, based on an understanding and interpretation by resource professionals and specialists.

To determine impacts, methodologies were identified to assess the impacts that would occur with the implementation of the management alternatives. Thresholds were established for each impact topic to help understand the severity and magnitude of changes in resource conditions, both adverse and beneficial.

Each alternative was compared to a baseline to determine the context, duration, and intensity of impacts. The baseline, for purposes of impact analysis, is the continuation of current temporary screening measures (alternative A). Table A summarizes the results of the impact analysis for the impact topics that were assessed in the “Environmental Consequences” chapter.

No park resources or values would be impaired by implementing any of the alternatives considered.

TABLE A: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative A – No Action Alternative	Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)	Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence
Cultural Resources			
Cultural Landscapes	Impacts to Independence Square’s cultural landscape resulting from the no action alternative are negligible related to the maintenance of the screening facilities in OCH and the Liberty Bell Center, and long-term minor adverse impacts (no adverse effect under Section 106) for the bicycle barricades segmenting the square. Cumulative impacts would be long-term minor and adverse (no adverse effect under Section 106). Based on this impact analysis, the no action alternative is not likely to result in any impacts that would constitute impairment of the cultural landscape.	Impacts to the Independence Square cultural landscape resulting from the various activities proposed under alternative B range from negligible impacts for the construction of a new screening facility at the Liberty Bell Center and the maintenance of the screening facilities at OCH to short and long-term moderate adverse impacts for the installation of a security fence across the square (adverse effect under Section 106). Cumulative impacts would be long-term, moderate adverse impacts. Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of the cultural landscape.	Impacts to the Independence Square cultural landscape resulting from the various activities proposed under alternative C range from negligible impacts for the construction of a new screening facility at the Liberty Bell Center and removal of the screening facilities from OCH, to short and long-term moderate adverse impacts (adverse effect under Section 106) for the installation of a security fence across the square and for construction of the new screening facility south of Congress Hall. Cumulative impacts would remain long-term, moderate adverse impacts (adverse effect under Section 106). Based on this impact analysis, alternative C is not likely to result in any impacts that would constitute impairment of the cultural landscape.
Historic Structures and Districts	The no action alternative would result in moderate long-term adverse impacts to OCH (adverse effect in terms of Section 106). Cumulative impacts to historic districts or structures would remain long-term adverse and moderate to the OCH (adverse effect under Section 106). Based on this impact analysis, the no action alternative is not likely to result in any impacts that would constitute impairment of historic structures or districts.	Impacts to the Independence National Historical Park historic property and Philosophical Hall resulting from the various activities proposed under alternative B range from short-term and long-term moderate adverse impacts (adverse effect under Section 106) during construction of the security fence south of Congress and Philosophical Halls to long-term moderate adverse impacts (adverse effect under Section 106) to Old City Hall for the maintenance of the screening facilities in the building’s interior. Cumulative impacts associated with alternative B from ongoing or expected future projects would remain long-term moderate adverse impacts (adverse effect under Section 106). Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of historic structures or districts.	Impacts to elements of the Independence National Historical Park historic district and Philosophical Hall resulting from the various activities proposed under alternative C range from short-term and long-term minor adverse impact (no adverse effect under Section 106) and moderate adverse impacts (adverse effect under Section 106) for the construction of the security fence and the new screening facility to long-term moderate beneficial impacts (no adverse effect under Section 106) for the removal of the screening facilities from Old City Hall. Cumulative impacts associated with alternative C from ongoing or expected future projects would remain long-term moderate adverse impacts (adverse effect) for construction of the security fence and the new permanent screening facility, and long-term moderate beneficial impacts to the Old City Hall for the removal of the present screening facilities. Based on this impact analysis, alternative C is not likely to result in any impacts that would constitute impairment of historic structures or districts.

Impact Topic	Alternative A – No Action Alternative	Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)	Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence
Archeology	<p>Under the no action alternative, no resources would be disturbed and no impacts would occur. Cumulative impacts under the no action alternative would be negligible or minor (no adverse effect under Section 106). There would be no impairment to archeological resources under the no action alternative.</p>	<p>Activities associated with the implementation of alternative B that would require subsurface excavation or ground disturbing activities would have adverse long-term negligible to moderate impacts (no adverse effect under Section 106) to archeological resources. However, these impacts would be mitigated through archeological data recovery or preservation in place. The cumulative impacts to archeological resources associated with alternative B would be long-term, negligible to minor adverse. Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of archeological resources.</p>	<p>Activities associated with the implementation of alternative C that would require subsurface excavation or ground disturbing activities could have adverse long-term negligible to moderate impacts (no adverse effect under Section 106) to archeological resources. However, these impacts would be mitigated through archeological data recovery or preservation in place. The cumulative impacts to archeological resources associated with alternative C would be long-term, negligible to minor adverse. Based on this impact analysis, alternative C is not likely to result in any impacts that would constitute impairment of archeological resources.</p>
Visitor Use and Experience	<p>The bicycle barricades would continue to intrude upon the Independence Square cultural landscape and result in long-term minor to moderate adverse impacts to visitor experience depending upon visitor sensitivity to the historic characteristics of Independence Square and the value they place on freely moving throughout the park unimpaired by security structures. Additionally, the presence of the white, temporary screening building next to the LBC would continue to be a long-term moderate adverse impact to visitors approaching the building because of inconsistency with the building and Mall design and it blocks visitor views through the building to the mall landscape. Security screening in the temporary facilities at the LBC and in OCH would also continue to cause long-term moderate adverse impacts because of heightened visitor uncertainty, wait times in security lines, health and safety issues, and the impact on the historical scene. However, the availability of interpretive staff to educate visitors about the security process and about park significance would result in some long-term minor beneficial impacts. Cumulative impacts would be long-term minor to moderate and adverse.</p>	<p>The impacts of the security fence would be similar to alternative A, ranging from long-term minor to moderate adverse depending upon visitor preferences related to the need to maintain the historic characteristics of the Square and the value they place on freely moving throughout the park unimpaired by security structures. The new building at the LBC would result in long-term minor adverse impacts because, although it would be compatible with existing architecture, it might continue to block the ability of visitors to see through the LBC to the mall landscape. Impacts related to security screening procedures at OCH would be the same as described in alternative A, but would be long-term moderate beneficial for visitors screened at the LBC because of the improved wait times and fewer health and safety issues. During construction, relocation of the temporary screening facility would result in short-term, moderate adverse impacts to visitors. Cumulative impacts would long-term and minor adverse.</p>	<p>Except for impacts associated with OCH and the new security screening facility on Independence Square, visitor use and experience impacts would be the same as alternative B. The removal of security in OCH would result in long-term moderate beneficial impacts for visitors that value the history represented by the Supreme Court chamber. However, for visitors that value the cultural landscape, the intrusion of both the security building and the security fence could result in long-term moderate adverse impacts. Therefore, the adverse visual impacts could offset the beneficial impacts of an improved visitor experience within OCH. Similar to the LBC, short-term disturbances resulting from large equipment, construction noise, and the moving of dirt would result in minor adverse impacts to visitors during construction.</p>

Impact Topic	Alternative A – No Action Alternative	Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)	Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence
<p>Health and Safety</p>	<p>Implementation of the no action alternative would result in long-term moderate beneficial impacts to health and safety due to the continued use of visitor screening at the LBC and OCH. There could also be long-term minor adverse impacts as a result of the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. There could also be long-term moderate adverse impacts as a result of the security inadequacies inherent in the temporary security fencing. Cumulative impacts under no action alternative would be short-term minor adverse.</p>	<p>Implementation of alternative B would result in long-term moderate beneficial impacts to health and safety due to the continued use of security screening at the LBC and OCH. There could also be long-term minor adverse impacts as a result of the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. There would be moderate long-term beneficial impacts with the added security the new fence provides. Cumulative impacts under alternative B would be short-term minor adverse.</p>	<p>Implementation of alternative C would result in long-term moderate beneficial impacts to health and safety due to the continued use of security screening at the Liberty Bell Center and the proposed new visitor screening facility located south of Congress Hall. Long-term minor adverse impacts could result from the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. Moderate long-term beneficial impacts would occur with the added security the new fence provides. Cumulative impacts under alternative C would be short-term minor adverse.</p>

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PURPOSE AND NEED

Independence National Historical Park is federal parkland under the jurisdiction of and maintained by the National Park Service (NPS). Spanning over 55 acres on 20 city blocks within the City of Philadelphia, the park preserves and interprets resources associated with the establishment of the United States of America, including: the site of the meetings of the first and second Continental Congresses and the site at which the Declaration of Independence, the Articles of Confederation, and the Constitution of the United States of America were debated and signed. In Independence Square – now a World Heritage site – the Declaration of Independence was read publicly for the first time on July 8, 1776. Most notably, the park manages and displays one of the country’s best known and most enduring symbols of freedom and liberty: the Liberty Bell (NPS 2003a).

PURPOSE OF AND NEED FOR THE PROPOSED ACTION

In response to Homeland Security Presidential Directive – 7 (HSPD-7), the NPS must improve the current temporary security fence and screening facilities at the Liberty Bell Center and Independence Square within Independence National Historical Park. The improvements under consideration would include the construction of permanent visitor screening facilities to replace the temporary, experimental visitor screening facilities at the Liberty Bell Center and within the Old City Hall for entrance into Independence Square. These improvements also include the installation of security fencing in two areas, around the Liberty Bell and between Congress Hall and the American Philosophical Society Hall, to replace the temporary bicycle barricades currently in place in these locations. These visitor screening facilities and security fencing are the subject of this Environmental Assessment (EA).

PURPOSE

The purpose for taking action is to allow Independence National Historical Park to protect Independence Hall and the Liberty Bell, national icons. The objectives include:

Improvement of Security – Due to the high visibility and importance of Independence Square, the Liberty Bell Center, and the national icons within these properties and because of increased national security concerns, the park requires protection against acts of crime and terrorism. Required security elements include (1) a permanent facility to screen individuals entering the Liberty Bell Center; (2) the use of the Old City Hall for screening individuals at the Independence Square Complex; and (3) security fencing located around the perimeter of the bell chamber at the Liberty Bell Center and the northern portion of Independence Square.

Preservation of Cultural Landscape Quality – The prominence of the icons and their setting are critical in the design and development of any landscape improvements or additional features on the site. Improvements to the existing secure zones would include the establishment of security fencing and landscaping to inhibit access on foot or by vehicle to these structures by vandals and/or terrorists.

NEED FOR THE ACTION

To address immediate physical security issues at Independence Square and the Liberty Bell Center, the NPS has installed temporary barriers to address pedestrian and vehicular threats. These temporary barriers include bicycle barricades around the perimeter of each facility and grounds. A temporary visitor screening facility has been constructed at the western entrance to the Liberty Bell Center and within the Old City Hall at Independence Square to electronically screen visitors who wish to gain access to the sites. While the physical barriers have been successful in deterring threats, the form and location of the bicycle barriers and the temporary visitor screening facilities disrupt the cultural landscape. Therefore,

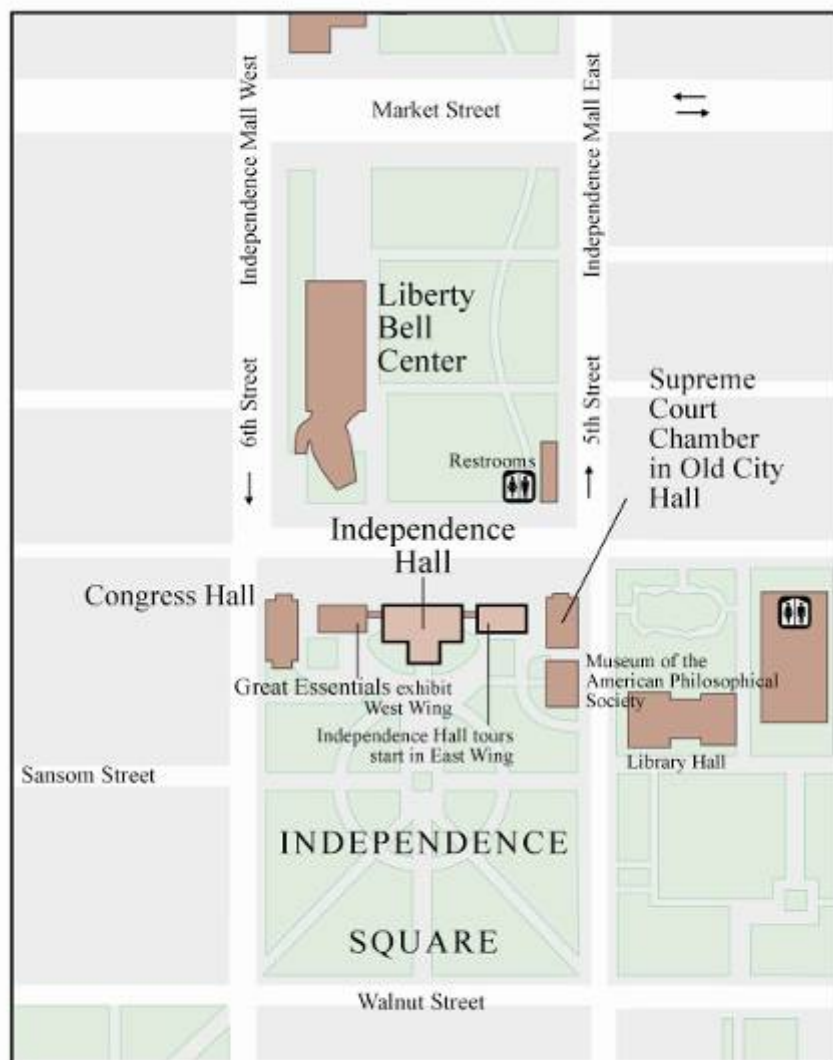
there is a need to evaluate more permanent and more appropriate facilities that will continue to provide protection as mandated by HSPD-7, but will also be more compatible with the cultural setting.

The NPS has prepared this EA in accordance with the National Environmental Policy Act of 1969, as amended (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA [40 Code of Federal Regulations (CFR) 1500–1508], and the NPS *Director's Order #12 and Handbook: Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001a). Compliance with Section 106 of the National Historic Preservation Act of 1966 is occurring separately from the EA process.

This EA seeks to assess two action alternatives and determine the potential impacts and recommended mitigation measures related to their implementation, as well as assess the no action alternative as required by the Council on Environmental Quality. The EA addresses short-term construction-related impacts and long-term effects, as well as the cumulative impacts that would result from this and other projects that have been completed recently, are currently under development, or are proposed within the study area.

The general study area for the proposed action consists of the Liberty Bell Center and its associated grounds and the northern portion of Independence Square, including Congress Hall, Independence Hall, and Old City Hall (see Figure 1). This study area is intended to serve as an area of emphasis within which short-term, long-term, and cumulative environmental impacts of the proposed action are analyzed. The study area may expand or contract for each resource discipline depending upon the potential for a specific impact to affect a given geographic area.

FIGURE 1: PROJECT STUDY AREA



PURPOSE AND SIGNIFICANCE OF THE PARK

National park system units are established by Congress to fulfill specified purposes. A park's purpose is the fundamental building block for its decisions to conserve resources while providing for the "enjoyment of future generations."

Establishment — On June 28, 1948, Congress passed Public Law 795, H.R. 5053, that established Independence National Historical Park "...for the purpose of preserving for the benefit of the American people as a national historical park certain historical structures and properties of outstanding national significance located in Philadelphia, Pennsylvania, and associated with the American Revolution and the founding and growth of the United States, the Secretary of the Interior is authorized.... such park to be fully established as 'the Independence National Historical Park'..." (NPS 2006a).

Purpose — The purpose of Independence National Historical Park is “to preserve its stories, buildings and artifacts as a source of inspiration for visitors to learn more about the ideas and ideals that led to the American Revolution and the founding and growth of the United States” (NPS 2006a; NPS 1997).

Significance — Statements of significance describe a park’s distinctive natural, cultural and recreational resources and values that are the reason for national recognition of the site. The significance statements for Independence National Historical Park were developed for the 1997 *Independence National Historical Park Abbreviated General Management Plan/EIS*.

Independence National Historical Park is significant nationally and internationally for many reasons. The park contains Independence Hall World Heritage Site and six national historic landmarks (First Bank, Second Bank, American Philosophical Society Hall, Carpenters’ Hall, Christ Church, and Deshler-Morris House). The park is listed on the National Register of Historic Places. The park’s structures and artifacts are the tangible remains of some of the most momentous events to shape this country and the world.

Independence National Historical Park is significant because the park (NPS 2006a; NPS 1997):

- Was the site of meetings of the first and second Continental Congresses, which gave direction to the American Revolution and the confederation government.
- Was the site where the founding documents of the United States of America were debated and signed.
- Includes the site of the home of Benjamin Franklin, who personified the spirit, ideals, curiosities, and ingenuity of 18th century America.
- Was where Congress met from 1790 to 1800 and created some of the first laws under the Constitution.
- Was the site of the presidency of George Washington (1790–1796) and John Adams (1797–1800), which established precedents and witnessed the first peaceful transfer of executive power in the Western world with Adams’ inauguration.
- Was the site of efforts to establish treaties with various Indian nations, such as the Mohawk nation led by Chief Joseph Brant.
- Was the site of the early decisions of the United States Supreme Court in the Federal decade (1790–1800).
- Is the place where the 1793 Fugitive Slave Act was passed and was signed into law by our first President, George Washington.
- Philadelphia was a center of activity in the Underground Railroad network, in part due to the large free black population resulting from the Pennsylvania Gradual Abolition Act of 1780.
- Independence Hall was the scene of trials in Federal District Court related to the Fugitive Slave Act of 1850.
- Independence Square was the scene of activity related to abolition such as Frederick Douglass’s famous 1844 speech while a fugitive slave, and other abolition society meetings.
- Independence Square was the site of the first public reading on July 4, 1876, of the “Women’s Declaration of Rights....” by Susan B. Anthony urging women’s suffrage.
- The park represents the founding ideals of the nation and is a national and international symbol of democracy and liberty.
- Resources in the park are tangible links to the past; they are authentic and have direct associations with the people and events of the early American republic.

The park is also significant to the Commonwealth of Pennsylvania and the City of Philadelphia because (NPS 2006a; NPS 1997):

- Philadelphia served as the national capital under the First and Second Continental Congresses, the Confederation Congress and the United States Congress during most of its first full decade, making it the keystone location for the founding of our nation.
- Independence Hall was the seat of the state government in the 18th century, where the State constitution was adopted in 1776.
- The park evokes colonial Pennsylvania and Philadelphia, which were founded on principles of religious and intellectual tolerance and provided a supportive atmosphere and model for the revolutionary ideas of the 1770s.
- The park is an integral part of Philadelphia—symbolically, historically, visually, and economically; it is the primary historical attraction in the city.
- The park’s designed cultural landscape is a clean, safe, open, and green space in the heart of Philadelphia’s urban environment; Independence Square has been an open green since 1735.
- The park is a leader and pioneer in forging cooperative agreements with local governments and organizations to jointly preserve and interpret important historic sites that are managed but not owned by the NPS.
- The park is significant in the history and practice of historic preservation in America. Many of the techniques, methods and practices that are now standard in preservation were developed at the park.

Mission Statement—A park’s mission statement is a vision for the future and articulates, in broad terms, the ideas that the NPS strives to achieve.

The mission of Independence National Historical Park is to preserve, manage, operate, maintain, protect and interpret park resources significantly associated with the American Revolution and the establishment of the United States of America in order to perpetuate these resources and to help all people understand the people, events, and ideas associated with the park’s tangible resources (NPS 2003a).

PROJECT BACKGROUND AND RELATED PLANS

National Park Service policies, coupled with Homeland Security Presidential Directive – 7, the national policy written in response to the September 11, 2001 terrorist attacks on the World Trade Center in New York City and the Pentagon in Washington, D.C., places the responsibility of protecting the nation’s monuments and icons from terrorist attacks on the Department of Interior. These icons include Independence Hall and the Liberty Bell.

Following the September 11, 2001 terrorist attacks, Independence National Historical Park closed Chestnut Street to vehicular traffic. A threat assessment study conducted at the park in 2002 recommended the creation of offset distances (secure zones) around the park’s national icons and screening of all individuals entering this secure zone, including the closure of the 500 block of Chestnut Street and portions of 5th and 6th Streets. On April 1, 2003, the city of Philadelphia and Mayor John F. Street reopened Chestnut Street to vehicular traffic.

Prior to the re-opening of Chestnut Street, the park was screening visitors one-time only for Independence Hall and the Liberty Bell. With the re-opening of the street, the park was forced to add a second temporary screening facility in the form of a tent on Independence Square. On March 29, 2004, the park assumed a single-screening operation combined with a “safe street” crossing operation. This reduced the need for dual screening, but did not reduce the staffing requirements.

In 2005, the Secretary of Interior and others directed Independence National Historical Park to implement anti-terrorist protection and security at two screening locations, one adjacent to the Liberty Bell Center and one inside the Old City Hall. Old City Hall is owned by the City of Philadelphia and operated by the park under a Memorandum of Agreement (July 14, 1950) that states that the Secretary of the Interior “will exercise reasonable care to prevent damage to, or destruction of, any part of the grounds and buildings or their appurtenances” (Article II (b)).

On March 1 2006, Independence National Historical Park opened a temporary security screening facility in Old City Hall, located at 5th and Chestnut Streets, for all visitors to Independence Hall and other sites on Independence Square. A separate security screening facility for the Liberty Bell Center was located along the east side of 6th Street between Market and Chestnut Streets. These temporary visitor screening facility and anti-terrorism protection measures, including the temporary bicycle barricade and set stand-off distances, were designed to protect Independence Hall and the Liberty Bell from a person-delivered explosive device.

RELEVANT PLANS, AND POLICIES

Completed in 1997, the *Independence National Historical Park General Management Plan* (GMP) guides the overall management and use of the area’s resources. The plan presents a vision of preserving and interpreting the varied and rich past of this area. First, the GMP outlines the parks approach for preservation and curation techniques to maintain the historic places, green space, and priceless collections of the park. Through its cultural resource management policies and procedures, the park will assure that these are preserved for future generations. Second, the park will continue to serve as an educator and as a place where visitors learn about the people and events of our nation. Third and finally, the park outlines an approach to becoming a more active partner in its community.

The park’s 2003 *Business Plan* answers questions such as: What is the business of this park unit? How much money does this park need to be operated within appropriate standards? This plan demonstrates the functional responsibilities, operational standards, and financial picture of the park. The business planning process was undertaken to accomplish three main tasks. First, it provides the park with a synopsis of its funding history. Second, it presents a clear, detailed picture of the state of current park operations and funding. Finally, it outlines park priorities and funding strategies. The completed business plan provides park management with financial and operational baseline knowledge for future decision-making.

The park is currently developing a Long-Range Interpretive Plan (LRIP). The LRIP defines the overall vision and long-term (7–10 years) interpretive goals of Independence National Historical Park. The process that develops the LRIP defines realistic strategies and actions that work toward achievement of the interpretive goals.

Director’s Order #28 calls for the NPS to protect and manage cultural resources in its custody through effective research, planning, and stewardship and in accordance with the policies and principles contained in the *NPS Management Policies* (NPS 2001b, 2006a). This order also directs the NPS to comply with the substantive and procedural requirements described in the *Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation*. Additionally, the NPS will comply with the 1995 Servicewide Programmatic Agreement with the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers. The accompanying handbook to this order addressed standards and requirements for research, planning, and stewardship of cultural resources as well as the management of archeological resources, cultural landscapes, historic and prehistoric structures, museum objects, and ethnographic resources.

OTHER FEDERAL AGENCY PLANS, AND POLICIES

The NPS is governed by laws, regulations, and management plans before, during, and following any management action related to the developed NEPA document.

Americans with Disabilities Act of 1990s

This act states, “Public accommodations must comply with basic nondiscrimination requirements that prohibit exclusion, segregation, and unequal treatment. They also must comply with specific requirements related to architectural standards for new and altered buildings; reasonable modifications to policies, practices, and procedures; effective communication with people with hearing, vision, or disabilities; and other access requirements. Additionally, public accommodations must remove barriers in existing buildings where it is easy to do so without much difficulty or expense, given the public accommodations resources.”

National Historic Preservation Act of 1966, as Amended

Section 106 of this act requires federal agencies to consider the effects of their undertakings on properties listed or potentially eligible for listing on the National Register of Historic Places. All actions affecting the parks’ cultural resources must comply with this legislation.

Historic Sites Act of 1935

This act declares as national policy the preservation for public use of historic sites, buildings, objects, and properties of national significance. It authorizes the Secretaries of the Interior and NPS to restore, reconstruct, rehabilitate, preserve, and maintain historic or prehistoric sites, buildings, objects, and properties of national historical or archaeological significance.

Executive Order 11593 - Protection and Enhancement of the Cultural Environment

This executive order directs the NPS to support the preservation of cultural properties and to identify and nominate to the National Register cultural properties within the park and to “exercise caution ... to assure that any NPS-owned property that might qualify for nomination is not inadvertently transferred, sold, demolished, or substantially altered.”

Department of Interior, Department Manual, Part-444 (Physical Protection and Building Security)

Department Manual, Part-444 establishes policies for the Department of Interior physical security program designed to safeguard Department personnel and facilities to include buildings, grounds, and property. Each bureau or office head is responsible for ensuring that bureau specific physical security review and compliance programs and policies are developed and implemented.

Homeland Security Presidential Directive/Hspd-7 (December 17, 2003)

Homeland Security Presidential Directive-7 establishes a national policy for federal departments and agencies to identify and prioritize United States critical infrastructure and key resources and to protect them from terrorist attacks. The directive outlines the requirements for protecting the nation’s critical infrastructure, and tasked the Department of Interior with the protection of national monuments and icons. Within Interior, the NPS is responsible for managing and protecting the Washington Monument, the Lincoln and Jefferson Memorials, the Statue of Liberty, Mt. Rushmore, and Independence Hall and the Liberty Bell. Although primarily focused on federal agency responsibilities for critical infrastructure protection, it also establishes expectations related to government interaction with the private sector.

SCOPING

NEPA regulations require an “early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.” To determine the scope of issues to be analyzed in depth in this EA, meetings were conducted with park staff and other parties associated with preparing this document, including public information meetings.

In February 2006, Independence National Historical Park held their most recent informational meeting regarding the proposed security facilities. Interested parties were invited to this meeting and it was

announced through press releases and on the park's website. Comments from this meeting were considered during the EA process and public involvement will continue throughout the EA process.

The Pennsylvania State Historic Preservation Officer received information regarding preliminary alternatives in March 2004. Consultation with the State Historic Preservation Officer, as mandated in Section 106 of the National Historic Preservation Act of 1966, is being carried out concurrently with the EA process. In addition, consultation with the U.S. Fish and Wildlife Service is underway to determine the presence of any federally listed species in the project area.

During the past two years the park has held several information meetings and provided details of the implementation of screening facilities at the park to a number of interested parties through their website, local newspapers, such as the Philadelphia Inquirer, and through local organizations. Continued coordination with local and regional organization and stakeholders is being conducted during this EA process to help identify issues and/or concerns related to social and cultural resources associated with the site. Coordination has occurred with the American Philosophical Society; Colonial Dames; Cherokee Confederacy; Descendants of the Signers of the Declaration of Independence; Friendly Sons of St. Patrick; Independence Hall Association; National Freedom Day Association; Sons of Union Veterans; Pennsylvania Society of Sons of the American Revolution; National Society of the Daughters of the American Revolution; Society of Free Quakers; and Patriotic Order of Sons of America. Representatives of these organizations have been invited to all of the park's public informational meetings, and have been asked to identify their concerns related to the new security measures proposed for Independence National Historical Park.

IMPACT TOPICS

The following impact topics are discussed in the "Affected Environment" chapter and analyzed in the "Environmental Consequences" chapter. These topics are resources of concern that could be beneficially or adversely affected by the actions proposed under each alternative. These were developed from issues identified during internal scoping and agency and public scoping to ensure that the alternatives were evaluated and compared based on the most relevant topics. Some issues were not carried through as impact topics; these are discussed with the reasons for their dismissal in the next section of this document.

Three general impact topics were determined through the scoping process to be key issues that warranted further analysis. These impact topics include Cultural Resources, because Independence Hall is a designated World Heritage site and concerns related to obstruction of the cultural landscape, potential adverse effects on historic structures such as Old City Hall, and potential impacts to archeological resources known to occur in Independence Square; Visitor Use and Experience, because of the popularity and interest in the national icons and historic facilities at Independence National Historical Park; and Public Health and Safety, because of the implications of proposed screening facilities on improving the safety of visitors and park staff.

IMPACT TOPICS ELIMINATED (OR DISMISSED) FROM FURTHER ANALYSIS AND CONSIDERATION

The following impact topics were eliminated from further analysis in this EA. A brief rationale for dismissal is provided for each topic.

Physical Resources (Soil, Geology, Topography)

The soils within the site have been substantially altered by the past placement of fill material. The majority of the project area is paved and those areas not paved are either manicured lawns or gardens. The installation of a security fence would involve minimal ground disturbance and would have negligible adverse impacts to soils. In addition, none of the alternatives would affect geology, or topography due to their existing highly disturbed nature. Therefore, soils, geology, and topography were dismissed as impact topics.

Paleontological Resources

There are no known paleontological resources within Independence National Historical Park; therefore this was dismissed as an impact topic.

Water Resources (including Wetlands and Floodplains)

From a review of the available mapping and site visits, no surface water features or wetlands are located within or adjacent to Independence National Historical Park. The new security barrier would not add additional impervious surfaces, and there would be no additional stormwater run-off produced as a result of either of the action alternatives. In addition, erosion and sediment control measures would be utilized during construction. The new security barrier would have no to negligible impacts to groundwater resources. In addition, according to FEMA's Flood Insurance Map for Philadelphia, the park is located outside of the Delaware River's 100-year floodplain. Since water resources would not be impacted by the proposed alternatives, this resource topic was dismissed as an impact topic.

Vegetation

Vegetation found within the park consists mostly of manicured lawns, native trees, and ornamental shrubs and trees. The installation of the security fence under either of the action alternatives would not likely necessitate the removal of any trees. Within Independence Square, under both action alternatives, it is likely that after the security fence has been installed, hedges would be planted along the fences for added security. Any impacts to the landscaping are discussed under the cultural landscapes sections of this document and, therefore, vegetation was dismissed from further analysis.

Wildlife and Wildlife Habitat

Wildlife at Independence National Historical Park is characteristic of an urban environment, and consists primarily of birds. Birds commonly observed are those associated with human activity and include house sparrows, European starlings, and pigeons. Mammals present include gray squirrels, and occasional Norway rats and house mice. Trees and shrubs planted for landscaping purposes provide nesting sites, food, and cover for many of the wildlife species present.

Implementation of any of the alternatives would only cause a negligible disruption to wildlife during construction of the proposed action alternatives because the project area is located within an urban and human dominated landscape surrounded by roads and buildings. Therefore, wildlife was dismissed as an impact topic.

Threatened, Endangered, and Special Concern Species

There are no documented occurrences of threatened, endangered, or species of concern within the project area; this topic was dismissed from further analysis.

Geohazards

There are no known geohazards within Independence National Historical Park; therefore this was dismissed as an impact topic.

Prime Farmland

Prime farmland is protected under the Farmland Protection Policy Act of 1981 to minimize the extent to which federal programs contribute to the unnecessary or irreversible conversion of farmland to nonagricultural uses. There are no documented occurrences of prime farmland soils at Independence National Historical Park; this was dismissed as an impact topic.

Marine or Estuarine Resources

There are no marine or estuarine resources within Independence National Historical Park; therefore this was dismissed as an impact topic.

Air Quality

The 1963 Clean Air Act, as amended (42 USC 7401 *et seq.*), requires federal land managers to protect park air quality. The act also assigns the federal land manager (park superintendent) an affirmative responsibility to protect the park's air quality related values – including visibility, plants, animals, soil, water quality, cultural and historic resources and objects, and visitors – from adverse air pollution impacts. Section 118 of the Clean Air Act requires that the park meet all federal, state, and local air pollution standards. Philadelphia, located in Bucks County, is in severe nonattainment for the one-hour ozone standard (US DOT 2002).

To regulate the emission levels resulting from a project, federal actions located in non-attainment areas are required to demonstrate compliance with the general conformity guidelines established in 40 CFR Part 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans (the Rule). Section 93.153 of the Rule sets the applicability requirements for projects subject to the Rule through the establishment of *de minimis* levels for annual criteria pollutant emissions. These *de minimis* levels are set according to criteria pollutant non-attainment area designations. Projects below the *de minimis* levels are not subject to the Rule. Those at or above the levels are required to perform a conformity analysis as established in the Rule. The *de minimis* levels apply to direct and indirect sources of emissions that can occur during the construction and operational phases of the action. The *de minimis* value for marginal ozone areas is 100 tons per year (tpy) for nitrogen oxide (NO_x) and 50 tpy for volatile organic compounds (VOCs).

Under the action alternatives, during the installation of the security fences and the construction of the new security screening facility(ies) (construction phase), emissions would result from the operation of construction vehicles and the addition of commuters as a result of construction crews coming into the area. Based on projects of similar scale and nature, it is expected that these temporary sources of emissions would fall well below the *de minimis* values for a marginal ozone nonattainment area. Since emissions levels are expected to fall below the *de minimis* level, negligible impacts to air quality would be expected during the construction phase of the assessed proposed alternatives. After construction is completed (operational phase), there would be no expected increase in the number of vehicles that utilize the surrounding roadway network would not be expected as a result of this project, resulting in no new emissions source or emissions. Since emissions would remain below the *de minimis* level during both the construction and operation phases of this project and the project area has remained below the standard for one-hour ozone for the past five years, this resource was dismissed as an impact topic.

Soundscapes

In accordance with the NPS *Management Policies 2001* and *Director's Order #47: Sound Preservation and Noise Management*, an important objective of the NPS mission is the preservation of natural soundscapes associated with national park units. Natural soundscapes exist in the absence of human caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in park units, together with the physical capacity for transmitting natural sounds. Natural sounds occur within and beyond the range of sounds that humans can perceive and can be transmitted through air, water, or solid materials. The frequencies, magnitudes, and duration of human caused sound considered acceptable varies among NPS units. Acceptance levels for each park unit are generally greater in developed areas and less in undeveloped areas.

The security fencing proposed under the action alternatives would result in no long-term differences in noise frequencies, magnitudes, and durations. Typical noise associated with commercial properties surrounding the site is currently produced in the project area. As a result of the nearby land uses and background levels of noise, implementation of any of the alternatives would have negligible impacts on sound preservation and noise management.

Traffic and Transportation

Under either of the action alternatives, the roads surrounding the Liberty Bell Center and Independence Square would remain open during all proposed construction activities. As a result, there could be some negligible short-term impacts to traffic with the increased truck traffic that would haul materials to and from the site and potentially cause slight delays to local traffic, which could lead to negligible adverse impact to the overall transit times through the area. Implementation of any of the alternatives would have negligible effects on traffic as none of the alternatives alter the existing traffic patterns. Because traffic impacts are expected to be negligible during construction and in the long-term under any of the proposed alternatives, this impact topic was dismissed from further analysis in this EA.

Land Use

The entire site is designated as part of the Independence National Historical Park. Due to the federal land use designation, the City of Philadelphia has no land use zoning jurisdiction over the land. The existing use of the land would not change, as a result of the proposed security improvements; therefore, land use was dismissed as an impact topic.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed action by Department of Interior agencies be explicitly addressed in environmental documents. The Federal Indian Trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaskan native tribes.

There are no Indian trust resources in the area of either the Liberty Bell Center or Independence Square. The lands comprising these areas are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, Indian Trust Resources was dismissed as an impact topic.

Environmental Justice

On February 11, 1994, President Clinton issued Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." This order directs agencies to address environmental and human health conditions in minority and low-income communities so as to avoid the disproportionate placement of any adverse effects from federal policies and actions on these populations. Local residents may include low-income populations, but these populations would not be particularly or disproportionately affected by activities associated with the implementation of permanent visitor screening facilities and security fencing; therefore, this impact topic was dismissed from further analysis in this EA.

Socioeconomic Resources

The socioeconomic environment consists of local, regional, and national businesses; the federal government; the state government; residences; the local and regional economy; and tourism. The area surrounding Independence National Historical Park consists of mixed urban uses, parks, and roads. The local economy and businesses include tourism, restaurants, banking, and federal government. Temporary screening and security measures have been in place since the terrorist attacks of September 11, 2001. Implementing permanent screening and security measures is not expected to impact visitation or the local or regional economy; there, this impact topic was dismissed from further analysis in this EA.

ALTERNATIVES

Federal agencies are required by NEPA to explore a range of reasonable alternatives. The alternatives under consideration must include the “no action” alternative as prescribed by 40 CFR 1502.14. Project alternatives may originate from the proponent agency, local government officials, or members of the public, at public meetings, or during the early stages of project development. Alternatives may also be developed in response to comments from coordinating or cooperating agencies. The alternatives analyzed in this document, in accordance with NEPA, are the result of design scoping and internal scoping.

The NPS explored and objectively evaluated a range of alternatives; three alternatives were carried forward for further analysis:

Alternative A – No Action Alternative

Alternative B – Permanent Screening Facilities (Liberty Bell Center and Old City Hall) and Security Fence

Alternative C – Permanent Screening Facilities (Liberty Bell Center and Independence Square) and Security Fence

ALTERNATIVE A – NO ACTION ALTERNATIVE

The no action alternative includes maintaining the temporary, experimental visitor screening facilities adjacent to the west wall of the Liberty Bell Center (LBC) and within Old City Hall (OCH) and the continued use of bicycle barricades around the Liberty Bell Center and on Independence Square (see Figure 2 and Figure 3). Bicycle barricades would continue to be configured from Congress Hall to the American Philosophical Society Hall on Independence Square. Additional bicycle barriers would remain around the northern perimeter of the Liberty Bell Center and along some of the interior walkways.

FIGURE 2: ALTERNATIVE A – NO ACTION ALTERNATIVE

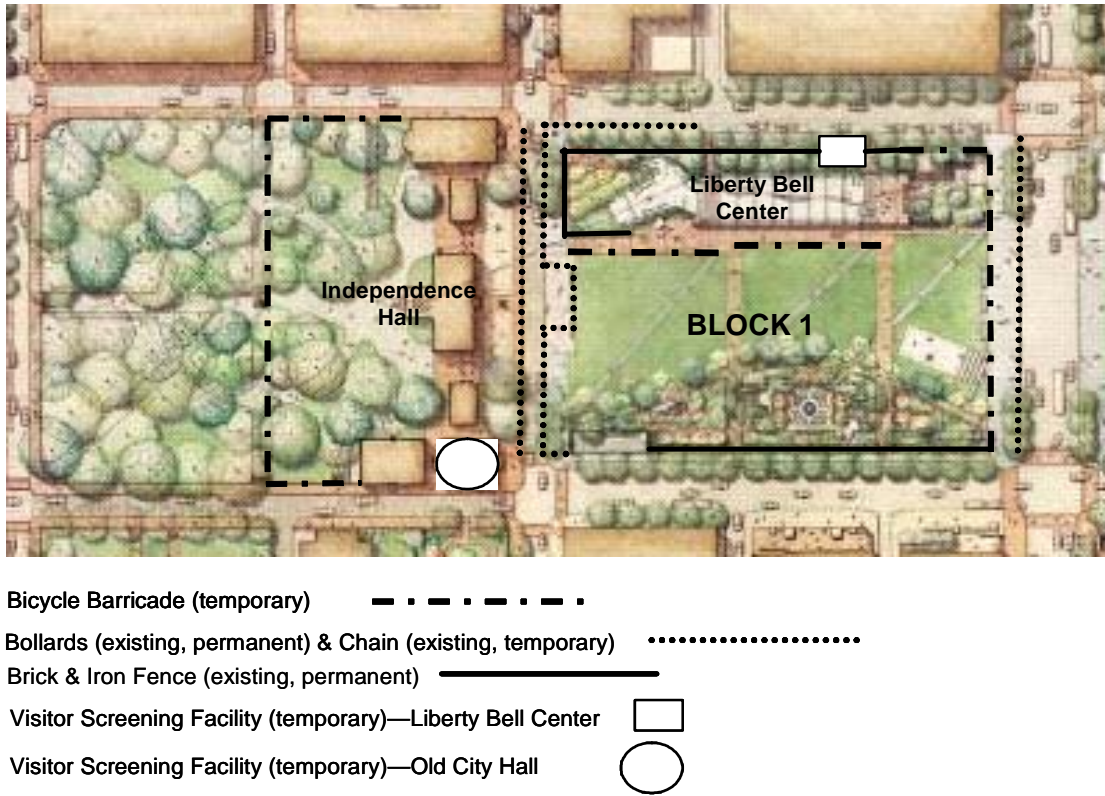
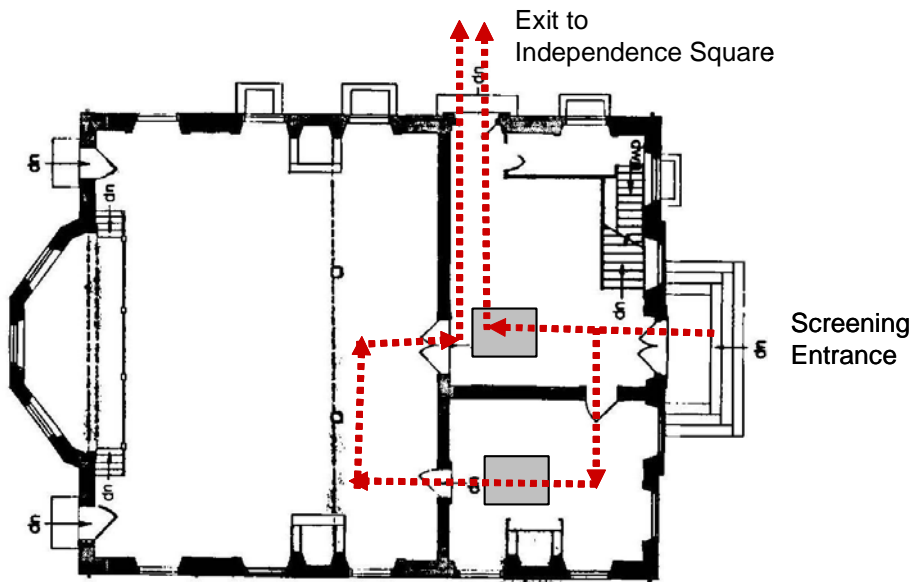


FIGURE 3: CIRCULATION PATTERN THROUGH OLD CITY HALL SCREENING

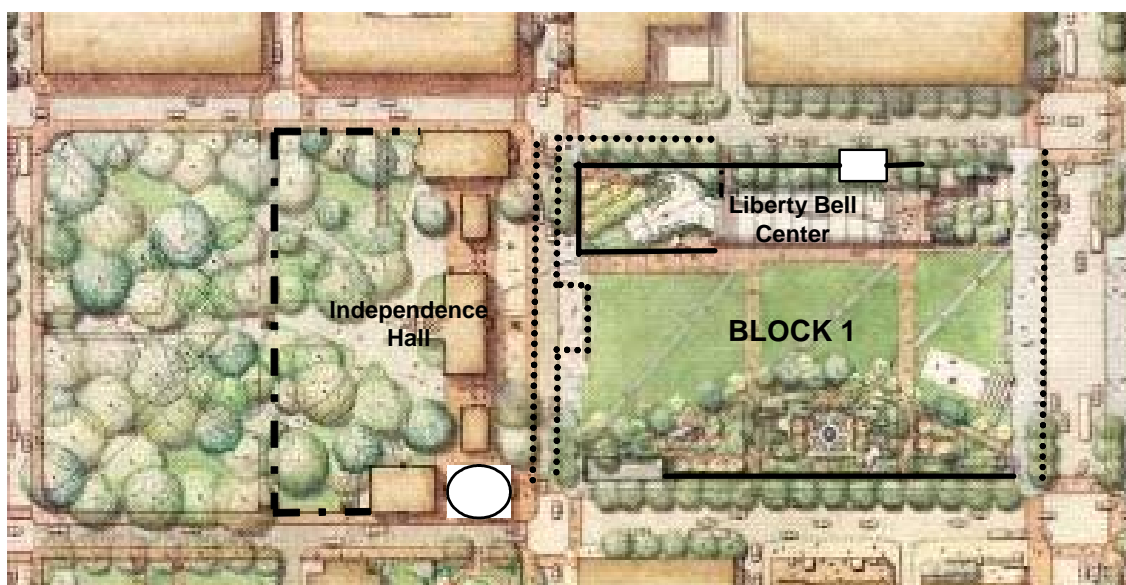


ALTERNATIVE B – PERMANENT SCREENING FACILITIES (LBC AND OCH) AND SECURITY FENCE (NPS PREFERRED)

Alternative B, the NPS preferred alternative, includes the construction of a permanent visitor screening facility at the location of the existing temporary structure at the Liberty Bell Center (LBC) and maintaining the existing visitor screening facility within the lobbies of Old City Hall (OCH) (see Figure 2 and

Figure 3 under alternative A). A six- to seven-foot high, reversible Iron Palisade security fence would be constructed along the major east-west walkway connecting to Congress Hall and the American Philosophical Society Hall on Independence Square, supplementing the existing exterior brick wall. A short run of reversible Iron Palisade security fence would also be installed to supplement existing protection around the Liberty Bell Center as well (see Figure 4).

FIGURE 4: ALTERNATIVE B – PERMANENT SCREENING FACILITIES (LBC AND OCH) AND SECURITY FENCE



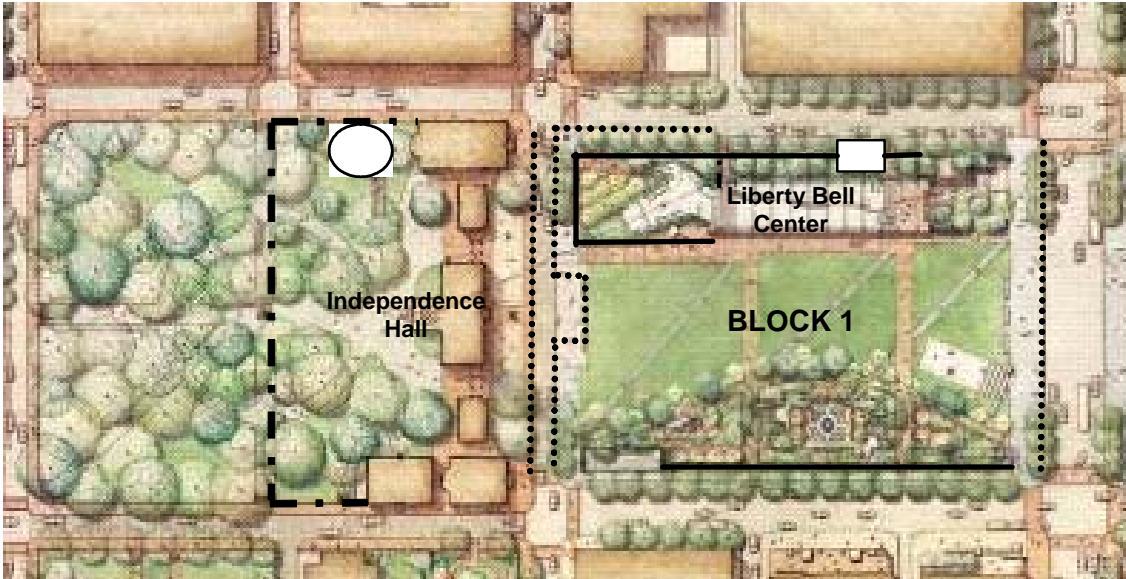
- Brick & Iron Fence (existing, permanent) —————
- Bollards (existing, permanent) & Chain (existing, reversible) ·········
- Iron Palisade Fence (proposed, reversible) - - - - -
- Visitor Screening Facility (proposed permanent building, reversible use)— Liberty Bell Center □
- Visitor Screening Facility (existing building, proposed reversible use)—Old City Hall ○

ALTERNATIVE C – PERMANENT SCREENING FACILITIES (LBC AND INDEPENDENCE SQUARE) AND SECURITY FENCE

Alternative C includes the construction of a permanent visitor screening facility at the location of the existing temporary structure at the Liberty Bell Center (LBC). The existing temporary screening facility would be removed from Old City Hall (OCH) and an additional permanent visitor screening facility would be constructed on the grounds of Independence Square south of Congress Hall. A six- to seven-foot high, reversible Iron Palisade security fence would be constructed along the major east-west

walkway connecting to Congress Hall and the American Philosophical Society Hall on Independence Square, supplementing the existing exterior brick wall. A short run of reversible Iron Palisade security fencing would be installed to supplement existing protection around the Liberty Bell Center as well (see Figure 5).

FIGURE 5: ALTERNATIVE C – PERMANENT SCREENING FACILITIES (LBC AND INDEPENDENCE SQUARE) AND SECURITY FENCE



- Brick & Iron Fence (existing, permanent) —————
- Bollards (existing, permanent) & Chain (existing, reversible) ·········
- Iron Palisade Fence (proposed, reversible) - - - - -
- Visitor Screening Facility (proposed permanent building, reversible use)—Liberty Bell Center □
- Visitor Screening Facility (proposed building, reversible use)—District Court ○

MITIGATION MEASURES

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures would be implemented as part of either action alternative. The NPS would implement an appropriate level of monitoring throughout the construction process to help ensure that protective measures are being properly implemented and to achieve their intended results.

CULTURAL RESOURCES

Security Fencing

Implement context sensitive design of the fence including; anchoring/securing the fence posts at regular intervals in piers or footings compatible with or sensitive to the materials used in the borders and pavements of the historical landscape; using black, visually permeable fencing; gating the fence at the cobblestone drive in order to permit its continued historic use as a vehicle entrance; and setting the fence back from the walls bordering 5th and 6th Streets in order to limit the fence from dominating and obscuring views into the park.

Install a series of interpretive panels on both sides of the fence describing the historic appearance of the district and the current need for increased security measures to protect Independence Hall.

Reassess security needs 10 years after fence installation, and every five years following, to determine whether security threats warrant continued presence of the fence, and removing the fence when circumstances permit its removal.

Periodically review advances in security technology and install less intrusive measures in lieu of major physical barriers when those measures become available.

Re-establish the double row of trees along the northern, Chestnut Street side of the Independence Square building complex in order to bring the site closer to its historic appearance and to provide additional protection to the buildings from street side explosions.

Replant trees removed or damaged during construction of the fence to ensure a similar level of tree canopy throughout the south square.

Permanent Visitor Screening Facilities—Old City Hall

Remove and store the historic doors, hardware, and related features and replace them with reproduction doors, hardware and related features.

Install a wood ramp over the southwest Supreme Court doorway to facilitate accessibility for handicapped visitors and to preserve the historic doorframe, trim, casing and stone stoop.

Place rubber protection mats to protect the existing wood floors in each screening location.

Apply a color compatible with the existing/historical color scheme on the temporary partitions used to direct visitors through Old City Hall.

New Permanent Visitor Screening Facility on Independence Square

Implement context sensitive design of the new screening building that takes into account the historic nature of building's setting and the materials and symmetry of the historic building complex on the north end of Independence Square.

Implement measures to ensure the preservation of the adjacent historic retaining walls.

Install public interpretation panels describing the site's earlier use as the New District Court.

Replant trees removed or damaged during construction of the facility to ensure a similar level of tree canopy throughout the south square.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

CEQ regulations for implementing NEPA require that federal agencies explore and objectively evaluate all reasonable alternatives to the preferred alternative, and to briefly discuss the rationale for eliminating any alternatives that were not considered in detail. Unreasonable alternatives may be those that are unreasonably expensive; that cannot be implemented for technical or logistic reasons; that do not meet park mandates; that are inconsistent with carefully considered, up-to-date park statements of purpose and significance or management objectives; or that have severe environmental impacts. This section describes those alternatives eliminated from further study and documents the rationale for their elimination.

No Screening. The park considered removing all temporary screening facilities and fencing around Independence Square and the Liberty Bell Center. This alternative would improve the overall visitor experience, preserving an open environment at/around national symbols of freedom and liberty. This alternative was dismissed by the Secretary of the Interior as it does not meet the mandate of HSPD-7 or the project purpose to protect two of the nation's icons—the Liberty Bell and Independence Hall.

The alternative would expose the structures and park visitors and staff and would provide a vulnerable target for terrorist attack.

Screening for Independence Hall Only. The park considered erecting one permanent screening facility and fencing around Independence Square only. One screening facility focuses on the most vulnerable structure, Independence Hall; reduces waiting at the Liberty Bell Center and, thus, improves the visitor experience. However, providing visitor screening only at Independence Hall does not meet the mandate of HSPD-7 or the purpose of the project to protect both Independence Hall and the Liberty Bell, national icons. The Liberty Bell would be exposed to potential threat; this alternative was therefore dismissed by the Secretary of the Interior.

One Secure Zone—LBC and Independence Square. This alternative includes the construction of a permanent screening facility on Block 1 (LBC). Visitors would be (1) escorted across Chestnut Street between the Liberty Bell Center and Independence Square; or (2) cross via a below grade tunnel under Chestnut Street. Variations of this alternative include changes in the area enclosed within the security fencing. This alternative was not carried forward for further analysis because of technical and logistical problems. Providing an escort across Chestnut Street requires additional manpower and coordination, providing no cost efficiencies to the park. Traffic signalization would require change. A tunnel is not logistically feasible as it would require construction at great depths to avoid existing sewer lines that flow under the street. This alternative was, therefore, rejected from further analysis.

THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is defined by CEQ as “the alternative that would promote the national environmental policy as expressed in NEPA Section 101. This includes:

1. Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Assuring for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. Attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
4. Preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;
5. Achieving a balance between population and resource use that would permit high standards of living and a wide sharing of life’s amenities; and
6. Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (NEPA, Section 101).”

Simply put, “Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources” (CEQ, *NEPA’s 40 Most Asked Questions*, 6a). The NPS has identified the “environmentally preferable alternative” as defined by the U.S. Council on Environmental Quality. There is no requirement that the environmentally preferable alternative and the preferred alternative be the same. After completing the environmental impact analysis, the NPS identified alternative C as the environmentally preferred alternative in this EA because it best meets the definition established by the U.S. Council on Environmental Quality.

The “Environmental Consequences” chapter describes the effects on each impact topic under each of the alternatives. These impacts are summarized in Table 1.

TABLE 1: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Topic	Alternative A – No Action Alternative	Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)	Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence
Cultural Resources			
Cultural Landscapes	Impacts to Independence Square’s cultural landscape resulting from the no action alternative are negligible related to the maintenance of the screening facilities in OCH and the LBC, and long-term minor adverse impacts (no adverse effect under Section 106) for the bicycle barricades segmenting the square. Cumulative impacts would be long-term minor and adverse (no adverse effect under Section 106). Based on this impact analysis, the no action alternative is not likely to result in any impacts that would constitute impairment of the cultural landscape.	Impacts to the Independence Square cultural landscape resulting from the various activities proposed under alternative B range from negligible impacts for the construction of a new screening facility at the LBC and the maintenance of the screening facilities at OCH to short and long-term moderate adverse impacts for the installation of a security fence across the square (adverse effect under Section 106). Cumulative impacts would be long-term, moderate adverse impacts. Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of the cultural landscape.	Impacts to the Independence Square cultural landscape resulting from the various activities proposed under alternative C range from negligible impacts for the construction of a new screening facility at the LBC and removal of the screening facilities from OCH, to short and long-term moderate adverse impacts (adverse effect under Section 106) for the installation of a security fence across the square and for construction of the new screening facility south of Congress Hall. Cumulative impacts would remain long-term, moderate adverse impacts (adverse effect under Section 106). Based on this impact analysis, alternative C is not likely to result in any impacts that would constitute impairment of the cultural landscape.
Historic Structures and Districts	The no action alternative would result in moderate long-term adverse impacts to OCH (adverse effect in terms of Section 106). Cumulative impacts to historic districts or structures would remain long-term adverse and moderate to the OCH (adverse effect under Section 106). Based on this impact analysis, the no action alternative is not likely to result in any impacts that would constitute impairment of historic structures or districts.	Impacts to the Independence National Historical Park historic property and Philosophical Hall resulting from the various activities proposed under alternative B range from short-term and long-term moderate adverse impacts (adverse effect under Section 106) during construction of the security fence south of Congress and Philosophical Halls to long-term moderate adverse impacts (adverse effect under Section 106) to Old City Hall for the maintenance of the screening facilities in the building’s interior. Cumulative impacts associated with alternative B from ongoing or expected future projects would remain long-term moderate adverse impacts (adverse effect under Section 106). Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of historic structures or districts.	Impacts to elements of the Independence National Historical Park historic district and Philosophical Hall resulting from the various activities proposed under alternative C range from short-term and long-term minor adverse impact (no adverse effect under Section 106) and moderate adverse impacts (adverse effect under Section 106) for the construction of the security fence and the new screening facility to long-term moderate beneficial impacts (no adverse effect under Section 106) for the removal of the screening facilities from Old City Hall. Cumulative impacts associated with alternative C from ongoing or expected future projects would remain long-term moderate adverse impacts (adverse effect) for construction of the security fence and the new permanent screening facility, and long-term moderate beneficial impacts to the Old City Hall for the removal of the present screening facilities. Based on this impact analysis, alternative C is not likely to result in any impacts that would constitute impairment of historic structures or districts.

Impact Topic	Alternative A – No Action Alternative	Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)	Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence
Archeology	<p>Under the no action alternative, no resources would be disturbed and no impacts would occur. Cumulative impacts under the no action alternative would be negligible or minor (no adverse effect under Section 106). There would be no impairment to archeological resources under the no action alternative.</p>	<p>Activities associated with the implementation of alternative B that would require subsurface excavation or ground disturbing activities would have adverse long-term negligible to moderate impacts (no adverse effect under Section 106) to archeological resources. However, these impacts would be mitigated through archeological data recovery or preservation in place. The cumulative impacts to archeological resources associated with alternative B would be long-term, negligible to minor adverse. Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of archeological resources.</p>	<p>Activities associated with the implementation of alternative C that would require subsurface excavation or ground disturbing activities could have adverse long-term negligible to moderate impacts to archeological resources. However, these impacts (no adverse effect under Section 106) would be mitigated through archeological data recovery or preservation in place. The cumulative impacts to archeological resources associated with alternative C would be long-term, negligible to minor adverse. Based on this impact analysis, alternative C is not likely to result in any impacts that would constitute impairment of archeological resources.</p>
Visitor Use and Experience	<p>The bicycle barricades would continue to intrude upon the Independence Square cultural landscape and result in long-term minor to moderate adverse impacts to visitor experience depending upon visitor sensitivity to the historic characteristics of Independence Square and the value they place on freely moving throughout the park unimpaired by security structures. Additionally, the presence of the white, temporary screening building next to the LBC would continue to be a long-term moderate adverse impact to visitors approaching the building because of inconsistency with the building and Mall design and it blocks visitor views through the building to the mall landscape. Security screening in the temporary facilities at the LBC and in OCH would also continue to cause long-term moderate adverse impacts because of heightened visitor uncertainty, wait times in security lines, health and safety issues, and the impact on the historical scene. However, the availability of interpretive staff to educate visitors about the security process and about park significance would result in some long-term minor beneficial impacts. Cumulative impacts would be long-term minor to moderate and adverse.</p>	<p>The impacts of the permanent security fence would be similar to alternative A, ranging from long-term minor to moderate adverse depending upon visitor preferences related to the need to maintain the historic characteristics of the Square and the value they place on freely moving throughout the park unimpaired by security structures. The new building at the LBC would result in long-term minor adverse impacts because, although it would be compatible with existing architecture, it might continue to block the ability of visitors to see through the LBC to the mall landscape. Impacts related to security screening procedures at OCH would be the same as described in alternative A, but would be long-term moderate beneficial for visitors screened at the LBC because of the improved wait times and fewer health and safety issues. During construction, relocation of the temporary screening facility would result in short-term, moderate adverse impacts to visitors. Cumulative impacts would long-term and minor adverse.</p>	<p>Except for impacts associated with OCH and the new security screening facility on Independence Square, visitor use and experience impacts would be the same as alternative B. The removal of security in OCH would result in long-term moderate beneficial impacts for visitors that value the history represented by the Supreme Court chamber. However, for visitors that value the cultural landscape, the intrusion of both the security building and the permanent security fence could result in long-term moderate adverse impacts. Therefore, the adverse visual impacts could offset the beneficial impacts of an improved visitor experience within OCH. Similar to the LBC, short-term disturbances resulting from large equipment, construction noise, and the moving of dirt would result in minor adverse impacts to visitors during construction.</p>

Impact Topic	Alternative A – No Action Alternative	Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)	Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence
Health and Safety	<p>Implementation of the no action alternative would result in long-term moderate beneficial impacts to health and safety due to the continued use of visitor screening at the LBC and OCH. There could also be long-term minor adverse impacts as a result of the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. There could also be long-term moderate adverse impacts as a result of the security inadequacies inherent in the temporary security fencing. Cumulative impacts under no action alternative would be short-term minor adverse.</p>	<p>Implementation of alternative B would result in long-term moderate beneficial impacts to health and safety due to the continued use of security screening at the LBC and OCH. There could also be long-term minor adverse impacts as a result of the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. There would be moderate long-term beneficial impacts with the added security the new fence provides. Cumulative impacts under alternative B would be short-term minor adverse.</p>	<p>Implementation of alternative C would result in long-term moderate beneficial impacts to health and safety due to the continued use of security screening at the LBC and the proposed new visitor screening facility located south of Congress Hall. Long-term minor adverse impacts could result from the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. Moderate long-term beneficial impacts would occur with the added security the new fence provides. Cumulative impacts under alternative C would be short-term minor adverse.</p>

AFFECTED ENVIRONMENT

This chapter of the EA describes existing environmental conditions in the areas potentially affected by the alternatives evaluated. This section describes the following impact topics: cultural resources; visitor use and experience; and health and safety. Potential impacts to these topics are discussed in the “Environmental Consequences” chapter following the same order.

CULTURAL RESOURCES

CULTURAL LANDSCAPES

Cultural landscapes, as defined by *The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (Birnbaum 1996), consist of “a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.” The proposed alternatives have the potential to affect the Independence Square cultural landscape.

In 2004 the NPS completed a two-volume cultural landscape report (CLR) analyzing and evaluating Independence Square’s cultural landscape (INHP 1998; Toogood 2004). Independence Square consists of the landscaped grounds bordered by Chestnut Street on the north, South 5th Street on the east, Walnut Street on the south, and South 6th Street on the west. The Pennsylvania provincial assembly began acquiring the properties comprising this block, then on the outskirts of the settled areas of the city of Philadelphia, in 1730 for a state house complex, and legislated that the land south of the State House, now known as Independence Hall, “be enclosed and remain a public open green and walks forever.” By 1769 the entire square had been acquired and a seven-foot high brick wall built around the square. The wall featured a large pedimented gate with wood doors topped by a fanlight centrally located along its Walnut Street side. Landscaping of the grounds, then known as the State House Garden, began in 1784 under the direction of Samuel Vaughan, a member of the American Philosophical Society who also oversaw construction of the American Philosophical Society Hall. Between 1811 and 1812, the original high brick walls were replaced with three-foot high walls with a marble coping and iron railing that permitted the movement of air across the square. Additional landscaping completed for the nation’s centennial in 1876 lowered the walls even further, installed steps and entrances through the walls in several places, and laid wide flagstone walks across the square in a spoked-wheel configuration. Further landscape alterations were completed in the early twentieth century under the auspices of the American Institute of Architects (AIA), and resulted in replacing the wall with the current low brick wall and coping, installing a cobblestone driveway south of Congress Hall, opening the northern portion of the square by removing two of walk’s spokes, and reworking the circular path with a cross pattern (INHP 1998).

The CLR found that the Independence Square cultural landscape possesses significance under several historic contexts. Independence Square meets National Register significance criteria under two of the four historic contexts identified in the Independence National Historical Park National Register nomination. In the context “Founding and Growth of the United States, 1774–1800,” Independence Square, a link to the events, structures, objects and sites associated with individuals who contributed to the early national government, is listed as a contributing element to the Independence National Historical Park (INHP) National Register historic property. Although the square most strongly reflects landscape designs created in 1875–1876 and 1915–1916, the square’s open plan and subsequent 270-year evolution as a commemorative open space is the landscape’s most important characteristic. The Independence Square cultural landscape also is significant under the context “Philadelphia, Capitol City, 1774–1800.” Although the National Register nomination identifies the American Philosophical Society Hall as the only contributing element within the square related to the Capitol City context, the square’s cultural landscape

comprised an integral part of the property that contributed to making Philadelphia the nation's capital during the late eighteenth century. Independence Square also comprises part of the World Heritage Site property (INHP 1998).

Independence Square also meets significance criteria under several additional areas of landscape significance identified by the CLR's historical narrative. In the context "Centennial of American Independence," the square reflects designs implemented to commemorate the nation's centennial birthday. These 1875–1876 designs retained the square as a memorial open space and helped to raise awareness for the preservation of artifacts of the Revolutionary period. Under this proposed context, the cultural landscape meets criterion A for its association with the Centennial celebration and criterion C as an important example of urban square design. The cultural landscape also meets criterion consideration F as a commemorative property. In the context "Historic Preservation – Professionalism in the Early Twentieth Century, 1913–1917," the cultural landscape meets significance criteria for its association with historic preservation trends spurred by the AIA's design of the square in 1915–1916. The Independence Square cultural landscape is also significant under the context "Philadelphia Politics and Government, 1765–1870." Independence Square comprised part of the city and county civil government complex that occupied the square for much of the nineteenth century, as well as being a functional and ceremonial setting for public gatherings and political rallies and protests. The square continued to serve as the political and symbolic heart of the city until it began moving its government offices to a new city hall in 1870, and thus meets criterion A for its association with the evolution of the city's political trends (Toogood 2004; INHP 1998).

Independence Square's cultural landscape reflects nearly three centuries of use and contains features from three principal landscape designs, each with varying levels of integrity. The Vaughan Landscape of 1785–1874 possesses low integrity. Although aspects of the Vaughan landscape's location and association remain intact, such as the boundaries of the square and the square's association with Independence Hall and the other state house complex buildings, much of the landscape's other areas of integrity have been compromised. Except for remnants of Vaughan's central axial-plan walkway extending north-to-south through the square, most aspects of the landscape's original design and its related materials, workmanship, setting and feeling have been either removed by subsequent landscape designs or severely impacted by neighboring modern development. The Centennial Landscape of 1875–1914 features moderate integrity, albeit much is altered by the more recent AIA Landscape. The square retains the radial design, flagstone paths and curved granite stairs of the Centennial Landscape circulation system. Small-scale features added during this period, such as outdoor lighting, benches, and iron fencing, do not survive. The Centennial Landscape's integrity of setting and feeling has also been impacted by modern intrusions into the surrounding neighborhood. The AIA Landscape, 1915–1951, features high integrity of location, design, materials, and workmanship. The square's existing circulation patterns, brick perimeter walls, outdoor lighting and mature trees relate to the AIA Landscape plan's implementation (INHP 1998). The National Register nomination for the park recognized the significance of the remaining vestiges of the Centennial Plan and the AIA Landscapes but failed to identify remaining features of the Vaughan landscape as significant characteristics (Toogood 2004).

By definition, cultural landscapes can consist of two principal organizational elements, spatial organization and land patterns, and several other character-defining landscape features including buildings and structures, vegetation, circulation, views and vistas, topography, archaeology, cluster arrangement, water features, and small-scale features (archaeology at Independence National Historical Park is discussed separately in this environmental assessment). The paramount attribute of the organizational elements and the character-defining features is their interrelationships in space. Individual features of the landscape are never examined alone but only in relationship to the overall landscape. The arrangement and interrelationship of a cultural landscape's organizational elements and character-defining features provide the key to determining the potential impacts and effects of the proposed improvements to the cultural landscape (Birnbaum 1994).

The Independence Square CLR described significant character-defining features within a framework including the cultural landscape's spatial organization, circulation, vegetation, site furnishings, and statues and memorials. Character-defining features falling under the rubric of spatial organization include views and axial relationships, the building complex, boundaries, topography, and walls and stairs. Significant circulation character-defining features encompass the building aprons, the perimeter sidewalks, the interior walkways, and the cobblestone drive. Vegetation features defining the character of the square's cultural landscape include the trees along Chestnut Street, the mature tree grove, and the site's turf. Lighting, seating, bollards and chains, and the cobblestone drive's ornamental cannon comprise significant character-defining site furnishing features of the Independence Square cultural landscape (INHP 1998).

The cultural landscape's views and axial relationships focus on the entrance and central walkway extending between the Walnut Street entrance and Independence Hall's bell tower. The walkway divides the square into two symmetrical halves and provides a formal view of Independence Hall. The axial view is somewhat interrupted by the Barry Statue's placement while alternately focusing attention on the view. The north-south axial orientation continues on the north side of the square where the Washington Statue has been installed directly north of Independence Hall's north entrance. These views and axial relationships are a significant surviving element of the Vaughan Landscape (INHP 1998).

The Independence Hall building complex comprises an important character-defining feature of the landscape's spatial organization. The complex, consisting of Independence Hall, Congress Hall, Old City Hall, the American Philosophical Society Hall, the East and West Wings, and the arcades, forms a physical barrier between Chestnut Street and the open square to the south and reinforces the original intent of the provincial assembly to keep the southern area an open public green. As a result, the CLR identifies two distinct treatment areas within Independence Square designated as "north square" and "south square." Historically, the State House Yard referred only to that area south of Independence Hall and did not include that portion of the block north of the State House buildings. South square consists of an area south of the building complex and includes the enclosed plaza featuring a mature tree canopy and flagstone paths. South square is physically removed from the city's noise and traffic by its brick enclosure and generates more meditative and reflective uses. North square encompasses Independence Hall's Chestnut Street frontage and the perimeter sidewalks and brick paving surrounding Independence Hall, Congress Hall, and Old City Hall. This open area functions most strongly as a setting for the historic buildings and as a transition area for pedestrians. Also included in the north-square area are the perimeter brick sidewalks along South 5th, Walnut, and South 6th Streets (INHP 1998).

Boundaries also comprise an important character-defining feature of the Independence Square landscape. The boundaries of the square have remained the entire block enclosed by Chestnut, South 5th, Walnut, and South 6th Streets since the Pennsylvania Assembly acquired the final parcels in the block in 1769. These boundaries mark the location of the significant historical events contributing to the square's evolution (INHP 1998).

Independence Square's present topography creates a base or platform that accentuates the historically noteworthy qualities of the square and Independence Hall, and comprises a significant character-defining feature of the landscape's spatial organization. Generally level at both its north and south ends, the ground slopes slightly upwards from Chestnut Street to Independence Hall, which is sited at the highest spot on the block. Originally the lot sloped downward roughly nine feet from the south side of the state house to the southwestern corner of the square. The provincial assembly considered motions to have the state house grounds leveled preparatory to landscaping shortly after construction of the state house began. Some fill and grading of the square occurred during the Vaughan Landscape period, but the current level topography is a direct result of the AIA Landscape plan's implementation. Brick retaining walls installed along the perimeter of the park as part of the AIA Landscape maintain an average grade within the square roughly four feet above the adjacent sidewalks (INHP 1998).

Intertwined with the square's topography and boundaries, wall and stair features contribute to the square's spatial organization and document the square's development during the AIA Landscape period. Flemish bond brick retaining walls capped by white marble copings and penetrated by entrance openings are located along the west, south, and east perimeters of the square. The retaining walls terminate at Congress Hall and Philosophical Hall. Stone stairs permit passage from the north side of Independence Hall through the arcades to the south side of the square. The stairs south of the buildings comprise integral units of the walls, providing entry to the square and clearly identify the square as an extraordinary public space. Entry stairs are located at the southeast and southwest corners of the square as well as mid-block along South 5th, Walnut, and South 6th Streets, and consist of white marble steps flanked by brick piers and wing walls topped by a white marble coping. The stairs' wing walls extend into the square and terminate where the walls meet the soil or gravel grade. The piers extend above the wall copings and are crowned by ball or balls pierced by plane finials. The walls and copings curve upwards where they meet the piers at all but the entrance at the south end of Philosophical Hall. A cobblestone drive penetrates the wall directly south of Congress Hall while a gated entrance pierces the wall south of Philosophical Hall (INHP 1998).

A brick building apron set in a herringbone pattern surrounds the Independence Hall complex of buildings and comprises a character-defining feature of the landscape's circulation system. The brick apron paving connects to the brick perimeter sidewalks, the north and east sides of Old City Hall, the west side of Congress Hall, and the perimeter walk along Chestnut Street. While the current brick aprons were installed in the 1970s, they follow design guidelines developed and implemented by the AIA Landscape plan (INHP 1998).

The square's perimeter sidewalks also comprise character-defining features of the landscape's circulation patterns. Laid in a herringbone pattern, the pavers are bordered by building or retaining walls on the square side of the walks and granite curbs on the street side. The curbs have been cut at the street intersections and the brick pavers warped down to provide curb ramps. Since the current sidewalk pavers were installed in the 1960s to reflect the perimeter walks appearance in the 1780s and 1790s, the alignment of the perimeter walk survives as the significant feature (INHP 1998).

Several aspects of the landscape's interior walkways comprise important character-defining features. Perhaps foremost among these aspects is the wide central walk extending north-to-south between the Walnut Street entrance and Independence Hall's bell tower established as part of the Vaughan plan's implementation. Now covered with bluestone, Vaughan's original walks were surfaced with gravel. However the broad central alignment of the principal walkway has been retained by all subsequent landscape improvements. Diagonal bluestone walks and a central circular walkway were installed as part of the Centennial Landscape, in addition to paving the Vaughan central walkway with bluestone. Installation of the Barry Statue in the center of the circular walkway occurred in 1907, and, as part of the AIA Landscape improvements in 1914, the perimeter of the statue was filled with bluestone set in a radial design. The AIA improvements also included the installation of brick aprons surrounding the Independence Hall complex buildings and the closing of several entrances introduced by the Centennial improvements (INHP 1998).

The cobblestone drive extending into the square from South 6th Street also comprises a significant character-defining feature of the circulation system. Located south of Congress Hall, the drive is framed by brick retaining walls with marble copings matching the principal walls enclosing the square. Two Civil War era cannon set vertically into the ground at the eastern end of the drive's sidewalls serve as protective fenders. The drive features a crown that directs water runoff to drain into swales along the base of the sidewalls. The drive provides minimal access for maintenance and service vehicles as the large sized cobble composing the drive make pedestrian use difficult. A large gauge chain blocks access to the drive from South 6th Street. Chain strung between iron bollards installed parallel to the sidewalls protects pedestrian square users from accidentally falling into the drive. Probably installed between 1866 and 1901 when the New District Courthouse stood in the area directly to the south of Congress Hall, the AIA plan

improved the cobblestone drive in order to permit vehicle access to the square. Restored by the NPS in 1960, the cobblestone drive is significant as a remnant of the AIA Landscape (INHP 1998).

Historically, the north square featured a double row of trees lining its Chestnut Street frontage. Three trees forming a portion of the southern row of trees nearest Independence Hall still stand and, along with the patched and covered tree wells demarcating the former location of the other trees, comprise significant aspects of the cultural landscape's vegetation. Although mention of twin tree rows along Chestnut Street first began around 1817, the present configuration of trees relates to the AIA landscape plan. In 1919, six elm trees were added to the then standing seven trees by the City park commission following the AIA design. The combined 13 trees represented one for each of the original 13 states. Photographic evidence indicates that the double row of trees survived into the early 1950s and formed an impressive and striking landscape feature (INHP 1998).

Trees have also been present on the south square since its inception and also comprise a significant character-defining feature of the landscape's vegetation. The current tree grove shading the south square, primarily a mix of oak, elm and sycamore, does not possess a discernable pattern or planting design. The three principal tree types of the current landscape have dotted the south square since the implementation of the Vaughan Landscape. However, the Vaughan plan included a formal planting design consisting of double rows of trees along the central walkway and informal groupings of trees beside the serpentine walks. Vaughan also intended to plant tree specimens from each of the 13 original states although it is unclear whether that part of the plan bore fruit. By 1859 nearly 210 species of trees dotted the south square. During the late nineteenth century and throughout the twentieth century, the planting of trees on the south square evolved into a ceremonial event where visiting dignitaries and civic and patriotic groups planted young trees to commemorate and honor the site of the United States' birth. The persistence of the tree grove since implementation of the Vaughan plan and its interlocking shade canopy comprises the significant vegetation feature as opposed to the current trees' placement within the landscape (INHP 1998).

In addition to the tree grove and canopy, the south square's grass turf comprises a significant character-defining feature of the Independence Square cultural landscape. Grass has always been grown on the square since its use as a public space. Often permitted to grow long and harvested for hay, purchases of grass seed for the square in the 1840s included mixes of red and white clover. Since the advent of mechanical lawn mowers in the late 1860s, it is likely that the grass areas on the square have been maintained as more formal lawns. Despite the intensive public use of the square, which often damages soil and turf, grass has continued to be grown as groundcover throughout the square's history and contributes to each of the historic contexts and landscapes (INHP 1998).

Existing lighting fixtures related to the AIA Landscape comprise significant character-defining features of the landscape's site furnishings. AIA period lighting fixtures line the south square walkways and consist of four-sided, glass-paned lanterns with metal funnels or chimney tops placed atop an iron post utilizing a curved hanger. Interpretations of a lantern design by Benjamin Franklin and an extant lamp in the collection of the Historical Society of Pennsylvania, the AIA period lanterns originally burned natural gas. The NPS electrified the AIA lamps to simulate colonial era oil-burning lamps after 1951 (INHP 1998).

The tradition of sitting in the square comprises part of the site's historical feeling and design, and the act of sitting within the square forms an important character-defining feature of the landscape's site furnishings. Provisions for public seating have been provided since the implementation of the Vaughan Landscape. Historically, wood logs, benches, iron stools and single seats provided seating for square users. Teak benches, commercially available as off-the-shelf items, set along the bluestone walks currently provide seating for square visitors. Although the benches themselves are not considered contributing elements to the landscape, they are left unpainted and allowed to weather to a silver-grey hue compatible with the square's historic character (INHP 1998).

Bollards and chains were introduced into the south square as part of the AIA landscape improvements, and as such, comprise important character-defining features of the square's site furnishings. The bollards and chains surround the cobblestone drive, grass beds, and shrub plantings. The cast-iron bollards stand approximately two feet high, are ornamented with ball tops, and are connected to one another by heavy-gauge chain, all painted black. The bollards control the movement of pedestrians throughout the square and protect the square's turf areas (INHP 1998).

The previously described ornamental cannons installed as fenders at the east end of the cobblestone drive as part of the AIA landscape plan also comprise a character-defining feature of the landscape's site furnishings (INHP 1998).

Statues and memorials in Independence Square contribute to the commemorative qualities of Independence Square and comprise character-defining features of the square's landscape. These statues and memorials include the George Washington Statue, the Abraham Lincoln Plaque, and the John F. Kennedy Plaque on the north square and the Commodore Barry Statue on the south square. The north apron also features a plaque laid in 1964 and commemorating President John F. Kennedy's visit to Independence Hall in 1962. The CLR notes that the Kennedy plaque's status as a contributing element to the district cannot be evaluated since it is less than 50 years old. Descriptions of the contributing statues and plaque are contained in the following section "Historic Districts and Structures" (INHP 1998).

HISTORIC STRUCTURES AND DISTRICTS

The proposed activities have the potential to affect two National Register listed historic properties, Independence National Historical Park and the American Philosophical Society Hall, a National Historic Landmark (NHL).

Independence National Historical Park, a historic district listed on the National Register in 1966, encompasses approximately 55 acres of buildings, structures, objects, sites and landscape commemorating the establishment of the United States, Philadelphia's evolution as the young nation's capital, and the life and legacy of Benjamin Franklin. Established via legislative act in 1948, the park preserves and interprets historic resources "of outstanding national significance associated with the American Revolution and the founding and growth of the United States." The park is significant in the areas of historic archaeology, architecture, economics, invention, politics/government and religion during the period 1774 to 1824. The park's nearly 70 contributing resources relate to one or more of four historic themes: the Founding and Growth of the United States; Philadelphia, Capital City, 1776–1800; Benjamin Franklin; and Architecture (NPS 1988).

Several historic buildings and objects contributing to the Independence National Historical Park National Register property stand within the area of potential effect for the alternatives for the proposed security fence and screening facilities. The contributing elements include Independence Hall, Congress Hall, Old City Hall, the Liberty Bell, the Commodore Barry Statue, the George Washington Statue, the Abraham Lincoln Plaque, the Kennedy Plaque, and the American Philosophical Society Hall. Independence Square also contributes to the Independence National Historical Park National Register property but is described in further detail under cultural landscapes (NPS 1988).

Independence Hall, widely recognized as a national icon, stands along the south side of Chestnut Street between South 5th and South 6th streets, the central core of a tripartite, Georgian-influenced complex of public government buildings. Erected between 1732 and 1753 as Pennsylvania's colonial state house, Independence Hall's Assembly Room witnessed the Second Continental Congress debate and the signing of the Declaration of Independence in 1776, and the adoption of the Articles of Confederation, the country's first governmental framework, the following year. The Constitutional Convention also met in the Assembly Room from May through September 1787 while framing and signing the Constitution of the United States, arguably one of the most significant documents in world history. Independence Hall was recognized as a World Heritage Site in 1979 for its association with ideas, beliefs, and events of

outstanding historical importance. The central, two-story brick Georgian structure portion of Independence Hall has experienced little adaptation to its exterior form and fabric since its original construction. The building's original wings and arcades were replaced in 1812 by fireproof office buildings designed by Robert Mills. The office buildings were in turn demolished and reconstructions of the original wings and arcades built in 1898. Architect William Strickland replaced the building's steeple in 1828 following his designs simulating the original steeple. Independence Hall's interior was remodeled numerous times during the nineteenth and early twentieth centuries. The NPS extensively researched the building's construction history and restored Independence Hall's interior to its period of significance, the years between 1774 and 1800 (NPS 1988). Independence Hall's west wing currently houses the NPS "Great Essentials Exhibit" and displays surviving copies of the Declaration of Independence, the Articles of Confederation and the Constitution, as well as a silver inkstand used to sign the Declaration and the Constitution.

Congress Hall, a two-and-one-half story Flemish bond brick structure with marble trim, stands on the southeast corner of Chestnut Street's intersection with South 6th Street and comprises the western building of the Georgian-inspired government complex. Designed originally to house Philadelphia's county courts, Congress Hall was modified during its construction in 1787–1789 to provide meeting chambers for the new nation's legislative bodies. Between December 1790 and May 1800, the House of Representatives occupied Congress Hall's first floor while the Senate met in the southern room of the building's second story. The Senate's library and committee meeting rooms occupied the remaining second floor rooms. In 1793 the building was extended 27 feet 7 inches on its southern end to accommodate representatives from newly admitted states. Galleries were also added to the building's interior to permit public viewing of legislative sessions. Following the federal government's move to Washington, D.C., Congress Hall began to serve its original function as a county courthouse. Between 1800 and 1895 the building's interior was remodeled numerous times to provide for the county courts, and later for federal courts of the Eastern District of Pennsylvania. After the City of Philadelphia moved its civil government offices to the present City Hall building in 1895, restoration of the Senate chambers, spearheaded by the Society of Colonial Dames, began under the direction of architect George C. Mason. The City of Philadelphia restored the former House chambers in 1912–1913 utilizing the expertise of a special committee of the AIA chaired by Frank Miles Day. Between 1959 and 1962, the NPS completed a thorough evaluation and restoration of the building. The NPS restoration included major structural rehabilitation, and mechanical and electrical work. The building features a five-bay wide symmetrical façade facing Chestnut Street with a three-bay wide projecting pavilion containing a round-arch entrance with a large fanlight (NPS 1988).

Old City Hall stands on the southwest corner of Chestnut and South 5th streets, east of Independence Hall. Construction of Old City Hall occurred in 1790–1791 as the final component of the planned public building complex. When first completed, the U. S. Supreme, District, and Circuit courts occupied Old City Hall, and prior to 1810 the Supreme Court heard arguments and rendered judgments in the southern room of Old City Hall's first floor. The building acquired the moniker "Old" in 1895 after the City of Philadelphia moved its governmental offices into the "new" City Hall located at Center Square, the intersection of Market and Broad streets. Old City Hall's exterior duplicates Congress Hall's massing and finishes, features Flemish bond brick with marble trim, and retains a high degree of architectural integrity. Although remodeled periodically after the federal government left Philadelphia, Old City Hall's interior underwent an extensive restoration in the early 1920s that returned the building to its Federal Era appearance. After its acquisition of Old City Hall, the NPS extensively rehabilitated the building's structural envelope and upgraded its mechanical and electrical systems (NPS 1988). Recent rehabilitations focused on the building's environmental systems. Until early 2006, the NPS used the first story for interpreting the Supreme Court and for exhibit and artifact display, while maintaining offices in the building's upper story.

The Liberty Bell, also a national icon, is currently housed at the Liberty Bell Center located on the northeast corner of Chestnut and South 6th Streets. The original Bell, cast twice in England at the

Whitechapel Foundry, cracked when first tested after its arrival at the newly completed provincial state house in 1752. Cast a third time in 1753 by local metal craft workers John Pass and John Stow with the same inscription, “Proclaim Liberty throughout all the land unto all the inhabitants thereof,” the Bell tolled to announce important public occasions. The Bell’s famous crack first appeared in 1835. Attempts to repair the crack in 1846 resulted in the formation of an additional smaller crack. The Bell began to be called the “Liberty Bell” in 1839 when abolitionist pamphleteers used the Bell’s image and biblical inscription to inspire the protest of slavery. The Bell remained in Strickland’s steeple between 1828 and 1852, when it was placed in the Assembly Room on display as a national symbol. For much of the late nineteenth and early twentieth centuries, the Bell traveled throughout the country, visiting the World’s Columbian Exposition in Chicago in 1893 and the Panama Pacific Exposition in 1915 in San Francisco. In 1976, a new pavilion erected on Independence Mall directly north of Independence Hall became the home of the Liberty Bell. This structure was demolished in 2006 after the Bell moved to its current home. The Bell weighs roughly one ton and possesses a 200-pound yoke and a 44.5-pound clapper. The Bell is composed of 70% copper, 25% tin, and small amounts of lead, zinc, arsenic, gold, and silver. The Bell hangs from an 18th-century yoke made from American elm, also known as slippery elm (NPS 1988).

The Commodore Barry Statue stands with outstretched arm in the center of Independence Square south of Independence Hall. The monument consists of an eight-foot tall bronze statue set atop a 12-foot square by 11-foot high gray granite base with a bronze tablet on its north face. Sculpted by Samuel Moore, a student of Thomas Eakins and a teacher at the Moore College of Art in Philadelphia, the statue honors Commodore John Barry, an Irish immigrant and one of the United States’ most celebrated Revolutionary War naval heroes. The Society of Friends of St. Patrick gifted the statue of Barry, clothed in the uniform of a Continental Navy officer, to the City of Philadelphia in 1907 (NPS 1988).

North of Independence Hall near the south side of Chestnut Street stands an eight-foot high bronze statue of George Washington mounted atop a white marble pedestal three-feet square and seven-feet high. The monument shows Washington clutching his sword with his left hand while his right hand rests on a book. The statue is a reproduction cast in 1910 at the Roman Bronze Works of New York of a marble statue sculpted by Joseph A. Bailey in 1869. The City of Philadelphia moved the original sculpture to the new City Hall in 1910 (NPS 1988).

The Abraham Lincoln Plaque is set into the brick sidewalk north of Independence Hall just east of the Washington Statue. A 33-inch by 36-inch bronze tablet, the plaque commemorates President-elect Lincoln’s address at Independence Hall on February 22, 1861, at the raising of the first 34-star U.S. flag following the admission of Kansas into the Union. A Union army veterans group, Post 2 of the Department of Pennsylvania, Grand Army of the Republic, commissioned and laid the plaque at Independence Hall in 1903 (NPS 1988).

The American Philosophical Society Hall stands directly south of Old City Hall along the west side of South 5th Street. Since its completion in 1789, the building has housed one of the United States’ “oldest and most honorable learned and scientific societies.” In addition to being a contributing element to the Independence National Historical Park National Register historic property, Philosophical Hall is a National Historic Landmark. Founded in 1768, the Society served as an intellectual salon and library devoted to the wide spectrum of natural and mechanical philosophy, subjects now known as the natural sciences. The Society spearheaded the local observation and study of the transit of Venus, important for determining the earth’s distance from the Sun, in 1769, and garnered much acclaim among the world’s scientific community. The society’s library also preserved the records of the Lewis and Clark Expedition at the request of member and former society president Thomas Jefferson, in addition to the records of the surveyors Mason and Dixon. The society also contains one of the most complete collections of works of Benjamin Franklin, one of the society’s founders, and related ephemera. The Society’s former member’s rank among the world’s leaders in science and technology and include John J. Audubon, Robert Fulton, Charles Darwin, Thomas Edison, Louis Pasteur, Albert Einstein, Robert Frost, and George C. Marshall. The Society’s *Transactions* comprise the longest published learned journal in the United States. The

Philosophical Hall building consists of a two-and-one-half story rectangular brick structure embodying late-Georgian architectural characteristics. Society member Samuel Vaughan headed a committee overseeing construction of the building. When completed the building provided meeting space for the society as well as a home for its library and artifact collection. The building also generated income for the society from the leasing of its unused space. Over a 145-year period, the Society shared the building with a wine merchant, Charles Willson Peale's Philadelphia Museum, United States District Courts, and insurance and investment brokers. In 1890, in order to create more space for the society's library and artifact collection, the original hipped roof was replaced with a flat-roofed, brick-walled third story. The Society removed the third story and restored the building to its historic appearance in 1946. The building's interior has undergone numerous alterations since first erected. A 1998 renovation provided updated staff workplaces. In 2006, the building served as the administrative headquarters for the Society (Greenwood 1974; APS 2006).

ARCHEOLOGICAL RESOURCES

Independence National Historical Park extends over all or portions of 21 blocks in the historic core of one of the nation's oldest cities, and there have been many archeological studies at various sites and locales throughout the park. As a result, there is an extensive body of archeological documentation of the park. The proposed security improvements fall in two areas that are very well documented, so it is possible to outline a fairly comprehensive inventory of the existing archeological resources by reference to available reports.

Independence Mall, Block 1

The Liberty Bell Center is located on the southwest corner of what is now known as Block 1 of Independence Mall. At present, there is a temporary screening facility adjacent to the Liberty Bell Center, along 6th Street. Under alternatives B and C, this temporary screening facility would be replaced by a permanent screening facility, using essentially the same building footprint. During construction of the permanent screening facility, a new temporary screening facility would be placed on the east side of the Liberty Bell Center. The Area of Potential Effects (APE) for archeological resources would include the building footprints for the temporary and permanent screening facilities and any adjacent areas that would be excavated for utility lines. These areas have already been thoroughly investigated for archeological resources in connection with construction of the Liberty Bell Center. Mitigation of the adverse effects of the Liberty Bell Center construction has already been accomplished by Liberty Bell Center data recovery and preservation in place (Yamin and Pitts 2000; Yamin et al. 2004).

Archeological studies for the Liberty Bell Center began with a sensitivity study (Yamin and Pitts 2000). This study concluded that the APE might contain important archeological deposits in deep shaft features (privies and wells) and in yard areas that had historically remained open or undeveloped. Perhaps most importantly, the area also contained a property that was historically used as the executive mansion; this was the house lot at 190 Market Street that was occupied by Presidents George Washington and John Adams.

Initial archeological testing of the Liberty Bell Center site involved extensive use of mechanical equipment, due to massive rubble deposits and fills that blanketed the development site. The testing program identified six shaft features that had been truncated by the 19th-century buildings that formerly stood on the site. These included five privies and an octagonal icehouse. Among these, the icehouse was somewhat unique, as deep shaft privies and wells are fairly common in Philadelphia's historic core, and many have been archeologically excavated. All six of these resources were considered eligible for the National Register of Historic Places. During the testing program, the icehouse was fully excavated and documented using a combination of mechanical and manual excavation techniques. Built of dry laid schist, it has an interior diameter of 13.4 feet. It conforms closely to a verbal description given in a letter from Robert Morris to George Washington in 1784, and it is believed to be the only surviving feature that

is associated with the period when 190 Market Street served as the executive mansion. After archeological excavation and documentation of the interior fills, the structure has been preserved in place.

The ensuing data recovery program focused on excavation of five privies that were located within the footprint of the mechanical room, which is the only part of the Liberty Bell Center that required deep excavation for construction. The most significant deposits were associated with two artisan-shopkeeper households (a cabinetmaker and a coachmaker) that occupied the area during the late 18th and early 19th centuries (Yamin et al. 2004).

Independence Square

The archeological record of Independence Square has been documented by a series of historical and archeological studies that began with antiquarian studies in the late 19th century. In addition, the cultural landscape studies of Independence Square (Toogood 2004) provide a detailed account of the physical history of the square and as such are important to understanding the archeological record. In fact, the earliest modern archeological work at the square (Powell 1959) was embedded with a landscape study (then known as a historical grounds report). Much of the archeological record reflects events associated with the succession of formal landscape designs that have been imposed on the square. Evidence of earlier use of the square includes possible remains of a Revolutionary War encampment.

The formal landscaping of the square has progressed through three major designs. The first landscape was designed by the Samuel Vaughan in a Romantic or naturalistic style, and it required a grading of the pre-existing, undulating topography. The second design, implemented in conjunction with the Centennial of the Revolution of 1875, featured a circulation system of paths that converged on a central circle. The AIA modified the Centennial Landscape in 1915 to make the more compatible with the surrounding historic buildings (Toogood 2004).

The Schumacher-Powell excavations, completed from 1953–1957, had three primary goals: (1) documentation of the Vaughan landscape plan of 1784–1785; (2) a search for remains of an astronomical observatory that was built to study the Transit of Venus in 1769; and (3) identification and documentation of other historical features. The excavations were successful in documenting a variety of features associated with the Vaughan landscape, including the red gravel serpentine walkway as well as various drains, fence lines, and fill deposits. As the primary emphasis was on documentation of the historical landscape, Powell classified the archeological resources as belonging to the pre-Vaughan period (1739–1784), the Vaughan period (1785–1810), or the post-Vaughan period (1811–present). In addition to documenting the landscape history of the site, Powell also able to reconstruct the natural topography of the square as it existed prior to historical development. The Schumacher-Powell excavations took advantage of a wealth of manpower available in the 1950s, and they stand as the most extensive archeological work in Independence Square to date. However, formal reporting of the 1950s-era excavations was scant, relative to the amount of fieldwork, and recent attempts to synthesize the earlier work have proved to be a daunting task (Inashima c. 1996).

The Transit of Venus Observatory (also known as the State House Observatory) was historically important, not only for its association with early astronomy, but also as the reputed site of the first public reading of the Declaration of Independence on July 8, 1776. The structure was built to study the passage of Venus between the Earth and the Sun, an event that occurred in 1761 and 1769 and inspired a number of worldwide expeditions. Powell cites attempts to establish the exact location of the observatory dating to the 1870s, and interest in locating the site has continued to the present day. The most recent studies place the location of the observatory at a point some 80 feet south and 82 feet west of the John Barry Statue (Babcock 2004; Bartlett and Yamin 2005).

While the Schumacher-Powell trenches of the 1950s stand as the most extensive archeological study of Independence Square, there have been numerous smaller projects in the intervening decades. Most recently, the square has been documented by a series of historical and archeological studies that were

conducted in conjunction with a rehabilitation of the sidewalks, drainage systems, lighting, and irrigation (Gerhardt and Yamin 2003; Bartlett and Yamin 2005). This program began with a background study that synthesized the many previous archeological projects. Drawing from previous reports and archival material, an inventory of more than 150 archeological features was compiled for the square, representing use of the site from the mid-18th through the twentieth centuries. The ensuing field investigations consisted primarily of trenching in areas where the landscape rehabilitation work would occur, such as the walkways and utility lines. In addition, other areas were investigated in an attempt to locate specific features such as the Transit of Venus Observatory and a pilot hole associated with a plan to build an underground shelter to protect the Liberty Bell from enemy attack during World War II.

Of particular interest to the present assessment are the northeast and northwest quadrants of the square, as the APE associated with the proposed security improvements would be confined to these areas. The security fence would extend across the square from 5th to 6th Streets, just to the north of the existing east-west walkways that radiate from the Barry Statue. Portions of Vaughan's Walk are known to exist at either end of the fence corridor, as is a 32x8-foot concentration of stone in the Northeast Quadrant, Grass Plot 4. The latter was documented in the 1950s and is of uncertain age and function; it may have been used as a platform for the display of Revolutionary War cannon or simply a discard area for unused paving material. Only a fraction of the new fence corridor has been subject to previous archaeological investigation, archival evidence suggests that various other historical landscape features are present in the general area.

Much of the western end of the security fence corridor falls in the footprint of the New District Court Building, which stood from circa 1866 to 1900. Under alternative C, the permanent screening facility would be built south of Congress Hall along 6th Street, within the site of the New District Court Building. Remnants of the building foundation and associated utilities have been documented in this area, along with historical landscape features.

VISITOR USE AND EXPERIENCE

Visitors to Independence National Historical Park often begin their visit at the Independence Visitor Center located at 6th and Market Streets in Philadelphia, Pennsylvania. The visitor center is open year-round, 7-days-a-week (excluding Christmas) with hours of operation varying by season. Opened in November 2001, this regional visitor center is a joint venture between the NPS and the Independence Visitor Center Corporation. The building functions as the park's primary visitor center as well as a center for city and region information. Here visitors can obtain information about the 27 historic and public use buildings that are open to the public, obtain free timed tickets for guided tours of Independence Hall, and learn about security procedures throughout the park (NPS 2006a). From spring through the fall approximately 6,000 to 10,000 visitors use it daily and over 2.3 million visitors used it during 2005 (NPS 2006b).

With the success of the Independence Visitor Center and the opening of the Liberty Bell Center and the National Constitution Center in 2003, visitation at Independence National Historical Park increased substantially from 2.7 million visitors in 2003 to approximately 4.1 million visitors in 2004. It remained near 4 million in 2005. Between 2003 and 2004, visitor use at the Liberty Bell Center changed by 82% from approximately 1.27 million visitors to 1.87 million visitors. Similarly, Old City Hall, change by 159% from approximately 106,000 visitors to 275,000 visitors as a result of changes in security procedures. The National Constitution Center also experienced a dramatic 137% increase in visitor use. Visitation is likely to increase in the foreseeable future because of the changing image of Philadelphia and the national trend to visitor local parks (NPS 2006b).

Of the 27 buildings within the park, the Liberty Bell Center and the buildings on Independence Square, including Independence Hall, Congress Hall, and Old City Hall are located within secure zones of the park that require visitors to process through separate security screening facilities. Figure 1 in the "Purpose

and Need” chapter identifies the locations of the buildings. These buildings are accessible to those with disabilities, with the exception of the 2nd floor in Independence Hall; however, there are no restrooms for public use in these areas. Public restrooms are available at 5th and Chestnut and require visitors to leave the secure area. If after using the public restrooms visitors want to return to one of these areas, they must go through screening again. More specific information on each building within the two secure zones and the security screening process for visitors, which was initiated in March 2006, is provided in the following paragraphs.

LIBERTY BELL CENTER

The Liberty Bell Center, which opened in October 2003, runs parallel to 6th Street and provides an audiovisual presentation on the history and meaning of the Liberty Bell and a shaded outdoor interpretive area. Scheduled interpretive talks are also provided. The Bell itself is showcased at the south end of the building, near the exit, with a view of Independence Hall behind it. Up to 8,000 people per day move through the building during busy summer months (NPS 2006a; INHP 2005a). In 2005, approximately 2 million visitors went through the center as shown in Table 2.

TABLE 2: MONTHLY VISITATION STATISTICS FOR 2005

Month	Liberty Bell Center	Independence Hall	Old City Hall
January	58,237	25,015	2,458
February	74,322	31,003	3,103
March	138,266	46,659	28,738
April	174,767	64,080	22,992
May	224,702	71,665	24,441
June	237,192	72,849	32,953
July	298,895	79,535	33,525
August	225,236	67,213	23,253
September	159,995	48,363	13,260
October	160,479	59,236	17,043
November	137,310	46,265	15,576
December	117,602	33,681	12,141
Annual	2,007,023	645,564	229,481

Source: <http://www.nps.gov/inde/stats/stats02.html>

Security Screening Process

Security screening for the Liberty Bell Center is located in a small, white temporary building along the east side of 6th Street between Chestnut Street and Market Street and adjacent to the center. To be screened, visitors queue up outside the building in an uncovered area. Because of the number of visitors that must be screened, the line often wraps out onto the sidewalk along 6th Street, but usually does not reach Market Street. Once screening is completed, visitors exit the screening building and walk outside the entrance to the Liberty Bell Center, the length of which is covered by an overhang from the Liberty Bell Center. This facility is accessible to the disabled, as defined by the Americans with Disabilities Act (ADA), and includes sloped ramps and doors wide enough to accommodate special needs.

The amount of time visitors spent in the queuing line waiting to be screened depends on the season.

There are two factors that affect visitors – time in the queuing line and time actually being individually screened. Lines are longer between April and November but actual time being screened is shorter because

of fewer clothes that have to be removed and screened. Wait times in the queuing line should be shorter between December and March because of fewer visitors, but actual individual screening times may be longer because visitors have on more clothes that most be removed and screened, like coats. Interpretive rangers are stationed along the queuing line to provide information on the need for security measures and to encourage visitors to share the sidewalk with pedestrians. The sidewalk along 6th Street was designed for two-way pedestrian traffic and is bordered by a bricked area with tree wells (see Figure 6). When the waiting lines for security screening extend onto the sidewalk, safety becomes an issue because pedestrians are often forced up along the tree wells where the surface is uneven and walking is difficult. Other issues that visitors face include exposure to the wet weather or heat while waiting outside to be screened (NPS 2006d).

FIGURE 6: VIEW OF QUEUE ENTERING THE LIBERTY HALL CENTER ALONG 6TH STREET



Second Continental Congress. In the Assembly Room of this building George Washington was appointed commander in chief of the Continental Army in 1775 and the Declaration of Independence was adopted on July 4, 1776. In the same room, the Articles of Confederation were adopted in 1781, and the U. S. Constitution was drafted in 1787 (NPS 2006b). Approximately 645,500 visitors enjoyed Independence Hall in 2005.

For entrance into Independence Hall, visitors must acquire a tour ticket with a specific day and time. Tickets are required from March 1 to December 31 each year, except for holidays. Tickets are available for free every morning at the Independence Visitor Center starting at 8:30 AM with the first tour beginning at 9:00 AM. Visitors may request tickets for any available time on the day of the visit. During the busy season, tickets are often gone by 1:00 PM. One person may request up to 10 tickets for a family or small group. To accommodate large groups, one teacher or guide is provided with as many as 80 tickets. Tickets may be reserved up to one year in advance through the National Park Reservation system (NPS 2006b).

Old City Hall

Located on the corner of Chestnut and 5th Streets, Old City Hall is open year round, with hours varying by season. Visitors are admitted free of charge on a first-come, first-serve basis. Built as the City Hall of Philadelphia, the building was used by the U. S. Supreme Court from the time the building was completed in 1791 until 1800 when the federal government was moved to Washington D.C. The municipal government and courts occupied the building during the 19th century (NPS 2006b). Approximately 229,500 visitors came to Old City Hall in 2005 prior to the implementation of the temporary screening facilities within the building.

INDEPENDENCE SQUARE

At Independence Square, visitors can enter several buildings once they are through security: Old City Hall, home to the Supreme Court; the West Wing Document Exhibit with the Declaration of Independence and the U.S. Constitution; and Congress Hall where the Senate and House of Representatives met for ten years.

Independence Hall

The centerpiece is Independence Hall as the birthplace of the country in 1776 and U.S. government in 1787. From 1775 to 1783 (except for the winter of 1777 to 1778 when Philadelphia was occupied by the British Army)

Independence Hall was the meeting place for the

Security Screening Process

Security screening for Independence Square is located in Old City Hall and is accessed from the southwest corner of Chestnut and Independence Streets. Screening in this location provides visitor's access to the northern portion of Independence Square including Old City Hall, Independence Hall, and Congress Hall. Individuals visiting the American Philosophical Society Hall also go through this screening point on weekends. On a busy day during the summer season, 10 times as many visitors are screened as compared to a slow day.

To begin the screening process, visitors enter through the north door of Old City Hall into the vestibule and are screened. From the west door exit, screened visitor may choose to walk with the secured perimeter of Independence Square or tour other buildings on the square. Alternatively, the screened visitor may choose to have a guided tour of the

Supreme Court Chamber and would re-enter Old City Hall from a separate entrance at the back of the building (NPS 2006c). Because the entrance to Old City Hall is not ADA accessible, temporary gates are opened outside the building on a level surface and disabled visitors are screened.

Visitors queue up to proceed through security screening outside of Old City Hall along 5th Street. There are some current issues with this location that do impact visitors as they proceed through screening as well as those visitors on tours of Old City Hall. Visitors waiting along the street interfere with pedestrian traffic because of the sidewalk width, which results in pedestrians moving into the street. Two steps must also be navigated inside the building if visitors go the left upon entering the building. Additionally, during weather extremes, visitors may be exposed to rain or heat and humidity while waiting outside. Because temporary white partitions have been erected in the old Supreme Court chambers to allow screening, visitors touring the chamber once they have proceeded through security are impacted by noise from the screening activities.

INTERPRETIVE SERVICES

In addition to the interpretive media throughout the park, the division of Interpretation and Visitor Services offers a wide variety of interpretive programs to visitors from ranger-led tours of Independence Hall to printing demonstrations at Franklin Court. Park rangers give tours and talks in historic buildings, present interpretative demonstrations in period clothing, lead guided outdoor walking tours and conduct hands-on programs for children.

Orientation to the park is offered primarily by park guides who staff the NPS desk in the Independence Visitor Center; however, all park employees and park partners provide orientation to visitors throughout the day at many park locations. Approximately 60 permanent employees staff more than 30 duty stations or programs throughout the year. Park guides welcome and prepare visitors for security screening at Liberty Bell Center and Old City Hall and provide crowd control at these locations.

FIGURE 7: VIEW OF QUEUE ENTERING INDEPENDENCE SQUARE



VISITOR EXPERIENCE

Harpers Ferry and park staff conducted planning workshops in 2005 as part of the Comprehensive Interpretive Planning process for the park. Current visitor experience issues at the park were identified during these workshops. Workshops included NPS staff as well as partners (NPS 2006a). The following is a select list of issues that are most relevant to the security changes proposed in this EA.

Because of the park's urban setting, visitors often have difficulty finding their way to the park, locating parking and walking from one area of the park to another through the city.

Many visitors concentrate their time in and around Independence Mall (the Independence Visitor Center, Liberty Bell Center, and the National Constitution Center) and are not aware of the opportunities to visit the rest of the park such as the Portrait Gallery in the Second Bank, Franklin Court, Carpenters' Hall and the Independence Living History Center.

Since September 11, 2001, the NPS and the Department of the Interior have instituted security measures to screen visitors to the Liberty Bell and Independence Square that affect both the historic scene and the visitor experience.

Security procedures present another layer of regulations and procedures that visitors must learn about and navigate through before they can see the Liberty Bell or the buildings on Independence Square.

Security procedures create lines and increase the amount of time that visitors must budget for during their visit to key park "icons". This causes some people to avoid visiting the Liberty Bell and Independence Hall because of the screening or the wait in line.

The presence of security screening raises the issue of the balance between freedom and security and the prices paid for freedom. These are essential questions that connect the principles of the American Revolution and make them tangible and relevant to modern audiences. Modern park security can be an issue explored in the park theme: Liberty: the Promises and the Paradoxes.

Security personnel are not NPS employees and are not a part of the division of Interpretation and Visitor Services. This challenges the park to work together to provide better visitor services.

HEALTH AND SAFETY

The NPS is committed to providing appropriate, high-quality opportunities for visitors and employees to enjoy the parks in a safe and healthful environment. The NPS strives to protect human life and provide for injury-free visits. One of the core values of the NPS, as stated in the *Management Policies 2001* and *Director's Order #50B: Occupational Safety and Health Program* (NPS 1999), is the safety and health of its employees, contractors, volunteers, and the visiting public. It is the policy of the NPS to provide a safe and healthful place of employment to protect federal and private property from accidental damage or loss, and to meet or exceed all applicable statutory, regulatory, and policy requirements relating to safety, health, and the environment (NPS 2001b). Coupled with these NPS policies, Homeland Security Presidential Directive 7 (the national policy written in response to the September 11, 2001 terrorist attacks on the World Trade Center in New York City and the Pentagon in Washington, D.C.), places the responsibility of protecting the nation's monuments and icons from terrorist attacks on the Department of Interior (NPS 2006e). Within the U.S. Department of the Interior, the NPS is responsible for managing and protecting the Washington Monument, the Lincoln and Jefferson Memorials, the Statue of Liberty, Mt. Rushmore, and Independence Hall and the Liberty Bell.

To ensure visitor safety and provide protection for the park's historic resources, NPS law enforcement rangers collaborate with contracted security personnel, working seven days a week performing a variety of safety-related functions, including law enforcement, emergency medical treatment, and structural fire protection. Park Rangers perform foot, vehicle and bicycle patrols to deter crime and protect visitors, while contracted security personnel are tasked with visitor screening and patrolling the fence line that

encircles the Liberty Bell Center and Independence Square. Both NPS law enforcement and the contracted security personnel work closely with local police and emergency service providers as the park's high visitation ensures a constant demand for their services.

As detailed in Visitor Use and Experience in the preceding section, visitors to the park are free to enter the majority of these buildings without going through security screening. However, those wishing to visit the Liberty Bell Center and Independence Square (which includes Independence Hall, Old City Hall and Congress Hall) are required to go through security screening facilities.

The perimeters of the Liberty Bell Center and the Independence Square are secured with fencing to ensure that all visitors pass through security screening before entering these facilities. Independence National Historical Site has an emergency evacuation plan that provides detailed instructions on how to efficiently move park visitors to safety in the event of an emergency. All park staff and contracted security personnel are trained to evacuate the visitors.

ENVIRONMENTAL CONSEQUENCES

GENERAL METHODOLOGY FOR ESTABLISHING IMPACT THRESHOLDS AND MEASURING EFFECTS

This chapter addresses the potential impacts to each of the resource areas (i.e., impact topics) discussed under the “Affected Environment” chapter for each of the alternatives. The action alternatives are compared to the no action alternative, or baseline condition of the study area to determine resource impacts. In the absence of quantitative data, best professional judgment was used. In general, impacts were determined through consultation and collaboration with a multidisciplinary team of NPS and other professional staff. Other existing data sources such as park planning documents and the NPS website were also used to assess the potential impact of each alternative.

Potential impacts of all alternatives are described in terms of type (beneficial or adverse); context; duration (short- or long-term); and intensity (negligible, minor, moderate, major). Definitions of these descriptors include:

Beneficial: A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.

Adverse: A change that declines, degrades, and/or moves the resource away from a desired condition or detracts from its appearance or condition.

Context: Context is the affected environment within which an impact would occur, such as local, park-wide, regional, global, affected interests, society as whole, or any combination of these. Context is variable and depends on the circumstances involved with each impact topic. As such, the impact analysis determines the context, not vice versa.

Duration: The duration of the impact is described as short-term or long-term. Duration is variable with each impact topic; therefore, definitions related to each impact topic are provided in the specific impact analysis narrative.

Intensity: Because definitions of impact intensity (negligible, minor, moderate, and major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed.

CUMULATIVE IMPACTS

NEPA regulations require an assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively moderate or major actions that take place over a period of time.

Cumulative impacts are considered for all alternatives, including the no action alternative. Cumulative impacts were determined by combining the impacts of the alternative being considered with other past, present, and reasonably foreseeable future actions. The following projects were identified as having the potential for impacts to the resources (i.e. impact topics) that are evaluated in this environmental assessment. These projects include past, present, and reasonably foreseeable projects within the project and surrounding areas.

LONG RANGE INTERPRETIVE PLAN

In 2006, the park will finalize its Long Range Interpretive Plan. The Long Range Interpretive Plan defines the overall vision and long-term (7–10 years) interpretive goals of the park. The process that develops the

Long Range Interpretive Plan defines realistic strategies and actions that work toward achievement of the interpretive goals.

The completed Long Range Interpretive Plan is a critical part of the park's Comprehensive Interpretive Plan, but it does not stand alone. Actions in the Long Range Interpretive Plan are divided into annual, achievable steps and reproduced in the Annual Implementation Plan, the second component of the Comprehensive Interpretive Plan. Creating a series of these Annual Implementation Plans that implement the recommendations outlined in the Long Range Interpretive Plan simplifies the park's annual planning. The third component of the Comprehensive Interpretive Plan is the Interpretive Database, an ongoing compilation of information, reports, bibliographies, plans, and inventories that document the Long Range Interpretive Plan's ongoing progress.

COMPREHENSIVE SIGN PLAN

The Interpretation and Visitor Services Division signed a project agreement with the Harpers Ferry Center to develop a Comprehensive Sign Plan for the park, which is a primary goal of the Long Range Interpretive Plan. The project goals will address ongoing ways of finding and identifying NPS identity issues throughout the park. The park will also engage in a separate plan to address security signage, which is estimated to begin in July 2006.

PRESIDENTS HOUSE SITE

The President's House site, located at 6th and Market Streets served as the residence of George Washington and John Adams as well as the location of the Executive Branch of government during most of their respective presidencies. The structure and its outbuildings were demolished in 1832, and over time, its existence was forgotten. It recently became the focus of popular and scholarly attention because its association with this history and the fact that some of the Washington's slaves lived in his presidential household. Funding is now in place to create permanent exhibits that would interpret the Office of the Presidency and commemorate the enslaved servants who lived there. The park is developing new exhibits and a film on President Washington's extended household, including his enslaved servants, at the Germantown White House. This site would be accessible to the general public, and would not require security screening to access.

INDEPENDENCE HALL TOWER RESTORATION

Plans call for installing a sheet-metal protective layer underneath exterior cladding to prevent further water damage. As part of the work, contractors would remove and replace deteriorated balusters and refurbish copper urns on the tower.

COMPLETION OF THE INDEPENDENCE MALL

A \$17.7 million landscaping project on the Mall that was approved as of November 2005, the project called for demolishing the former Liberty Bell Pavilion, landscaping the gravel-covered area near the Independence Visitor Center, visitor walkways, and creation of a First Amendment Rights Area for visitors. Currently, the park is in the final stages of removing the pavilion and the site has been graded. The creation of the First Amendment Rights area is pending.

DESIGN GUIDELINES FOR THE MALL

The 1998 Design Guidelines for the Mall is intended to help direct the future development of the landscape and the architecture on Independence Mall. The guidelines summarize the principles that informed the design process and describe the features of the Master Plan. The guidelines set standards for future development relating to environmental sustainability, architecture, landscape design, public improvements, interpretation, special events, security, and engineering.

REHABILITATION OF INDEPENDENCE SQUARE

The park rehabilitated Independence Square in a fashion consistent with the cultural landscape report and the park's general management plan. Rehabilitation activities included landscaping, installing unobtrusive irrigation devices, placing benches, and installing appropriate lighting.

CONDOMINIUM TOWER, 5TH AND WALNUT STREETS

The Zoning Board of Philadelphia approved the construction of a 26-story condominium tower on the corner of 5th and Walnut. The building starts on a low base faced in glass, and then sets back after five stories to form a slim tower. All parking for the building would be underground and include 24,000 square feet of retail on the first and second floors. At the time of this writing, this proposed project was in litigation.

SECOND BANK SIDEWALKS

The sidewalks along Chestnut Street, in front of the Second Bank and along the east side of 5th Street are scheduled to be removed and replaced to create an improved walking surface.

NORTH APRON IN FRONT OF INDEPENDENCE HALL

The NPS plans to resurface the north apron in front of Independence Hall. The aggregate surface that was previously used is unacceptable and would be replaced with an acceptable concrete aggregate surface.

IMPAIRMENT ANALYSIS

The *NPS Management Policies 2001* require an analysis of potential effects to determine whether or not actions would impact park resources, but also to determine whether those actions would impair park resources. The fundamental purpose of the national park system, as established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. These laws give the NPS the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values.

The impairment that is prohibited by the Organic Act and the General Authorities Act is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts. An impact to any park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it has a major or severe adverse effect upon a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified as a goal in the park's general management plan or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park.

An impairment determination is included in the conclusion statement for all impact topics related to all park cultural resources. Impairment determinations are not made for health and safety because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values. Impairment determinations are not made for visitor use and experience because, according to the Organic Act, enjoyment cannot be impaired in the same way an action can impair park resources and values.

CULTURAL RESOURCES

GUIDING REGULATIONS AND POLICIES

Federal actions that have the potential to affect cultural resources are subject to a variety of laws and regulations. The National Historic Preservation Act of 1966, as amended, is the principal legislative authority for managing cultural resources associated with NPS projects. Generally, Section 106 of the National Historic Preservation Act (NHPA) requires all federal agencies to consider the effects of their actions on cultural resources listed and/or determined eligible for listing in the National Register of Historic Places (National Register). Such resources are termed “historic properties.” Agreement on mitigation of adverse effects to historic properties is reached through consultation with the State Historic Preservation Officer; Tribal Historic Preservation Officer, if applicable; and, as required, the Advisory Council on Historic Preservation (Advisory Council). In addition, the NHPA requires that federal agencies take actions to minimize harm to historic properties that would be adversely affected by a federal undertaking. Among other things, Section 110 of the NHPA also charges federal agencies with the responsibility for establishing preservation programs for the identification, evaluation, and nomination of historic properties to the National Register of Historic Places.

Other important laws and regulations designed to protect cultural resources are:

- Native American Graves Protection and Repatriation Act (NAGPRA), 1990
- American Indian Religious Freedom Act (AIRFA), 1978
- National Environmental Policy Act (NEPA), 1969
- Archeological Resources Protection Act (ARPA), 1979
- Executive Order 11593 Protection and Enhancement of the Cultural Environment, 1971

In addition, the NPS is charged with the protection and management of cultural resources in its custody. This is furthered through the implementation of *Director’s Order #28: Cultural Resources Management Guidelines* (NPS 1998), *NPS Management Policies* (NPS 2001b), and the 1995 Servicewide Programmatic Agreement with the Advisory Council and the National Conference of State Historic Preservation Officers. These documents charge NPS managers with avoiding, or minimizing to the greatest degree practicable, adverse impacts on park resources and values. Although the NPS has the discretion to allow certain impacts in parks, that discretion is limited by the statutory requirement that park resources and values remain unimpaired, unless a specific law directly provides otherwise.

GENERAL METHODOLOGY AND ASSUMPTIONS

The NPS categorizes cultural resources by the following categories: archeological resources, cultural landscapes, historic districts and structures, museum objects, and ethnographic resources. As noted in “Issues and Impact Topics” of the “Purpose and Need” chapter, only impacts to archeological resources, cultural landscapes, and historic districts and structures, are of potential concern for this project. There would be no impacts to museum objects. The park places great value on ethnographic resources and the park’s traditionally associated groups; however, possible impacts to ethnographic resources are believed to relate specifically to vista, cognition, and access (D. Fanelli, Chief of Cultural Resources Management, NPS, pers. com., LBG, June 16, 2006). Therefore, potential impacts to ethnographic resources are addressed under cultural landscapes and visitor use and experience in this environmental assessment.

The analyses of effects on cultural resources that are presented in this section respond to the requirements of both NEPA and Section 106 of the NHPA, although the Section 106 compliance is being handled separately. In accordance with the Advisory Council's regulations implementing Section 106 (36 CFR Part 800, *Protection of Historic Properties*), impacts on cultural resources were identified and evaluated by (1) determining the Area of Potential Effects (APE); (2) identifying cultural resources present in the APE that are either listed in or eligible to be listed in the National Register (i.e., historic properties); (3) applying the criteria of adverse effect to affected historic properties; and (4) considering ways to avoid, minimize, or mitigate adverse effects.

Under the implementing regulations for Section 106, a determination of either *adverse effect* or *no adverse effect* must also be made for affected historic properties. An adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the National Register (for example, diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association). Adverse effects also include reasonably foreseeable effects caused by the proposal that would occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5). A determination of *no adverse effect* means there is either no effect or that the effect would not diminish, in any way, the characteristics of the cultural resource that qualify it for inclusion in the National Register.

CEQ regulations and the NPS *Conservation Planning, Environmental Impact Analysis and Decision-making* (Director's Order #12) also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an impact from major to moderate or minor. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. Cultural resources are non-renewable resources and adverse effects generally consume, diminish, or destroy the original historic materials or form, resulting in a loss in the integrity of the resource that can never be recovered. Therefore, although actions determined to have an adverse effect under Section 106 may be mitigated, the effect remains adverse.

The NPS guidance for evaluating impacts (*Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision Making*) (NPS 2001a) requires that impact assessment be scientific, accurate, and quantified to the extent possible. For cultural resources, it is seldom possible to measure impacts in quantifiable terms; therefore impact thresholds must rely heavily on the professional judgment of resource experts.

A summary is included in the impact analysis sections for cultural landscapes, historic districts and structures, and archeological resources to comply with Section 106. The impact analysis is an assessment of the effect of the undertaking (implementation of the alternative) on National Register eligible or listed cultural resources only, based upon the Advisory Council's criteria of adverse effect.

The Area of Potential Effects for this project includes all areas where new facility construction or landscaping and utilities construction may occur. This area may vary to some degree by impact topic.

CULTURAL LANDSCAPES

Study Area

The proposed alternatives would impact character-defining features of the Independence Square cultural landscape.

Impact Thresholds

In order for a cultural landscape to be listed on the National Register of Historic Places, it must possess significance (the meaning or value ascribed to the landscape) and have integrity of those features necessary to convey its significance. Character-defining features of a cultural landscape may include spatial organization and land patterns; topography; vegetation; circulation patterns; water features; and

structures/buildings, site furnishings, and objects (see *The Secretary of the Interior's Standards for the Treatment of Historic Properties and the Guidelines for the Treatment of Cultural Landscapes*, 1996). For purposes of analyzing potential impacts to cultural landscapes, the thresholds of change for the intensity of an impact are defined as follows:

Negligible: The impact is at the lowest level of detection with neither adverse nor beneficial consequences. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor: Adverse impact — Alteration of a pattern(s) or feature(s) of the cultural landscape listed on or eligible for the National Register of Historic Places would not diminish the integrity of a character-defining feature(s) or the overall integrity of the landscape. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Beneficial impact — Preservation of landscape patterns and features would be in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, therefore maintaining the integrity of the cultural landscape. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate: Adverse impact — The impact would alter a character-defining feature(s) of the cultural landscape and diminish the integrity of that feature(s) of the landscape. For purposes of Section 106, the determination of effect would be *adverse effect*.

Beneficial impact — The landscape or its features would be rehabilitated in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*, to make possible a compatible use of the landscape while preserving its character defining features. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major: Adverse impact — The impact would alter a character-defining feature(s) of the cultural landscape and severely diminish the integrity of that feature(s) and the overall integrity of the historic property. For purposes of Section 106, the determination of effect would be *adverse effect*.

Beneficial impact — The cultural landscape would be restored in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* to accurately depict the features and character of a landscape as it appeared during its period of significance. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Duration: Short-term impacts would last for the duration of construction activities associated with the proposed alternative; long-term impacts would last beyond the construction activities.

Impacts of Alternative A – No Action Alternative

Analysis. Under the no action alternative, maintenance of the current screening facilities in Old City Hall and the Liberty Bell Center would have negligible impact on the Independence Square cultural landscape.

The continued use of bicycle barricades to limit pedestrian access between the northern and southern halves of the square south of Independence Hall impacts several character-defining features of the cultural landscape. The bicycle barricades slightly interrupt the axial views and relationships of the central walkway, visually segment the building complex from a large portion of the square, and disrupt the interior walkway design and circulation network. Although visually unappealing, the barriers are perceived as a temporary structure. The barriers' impacts are not sufficiently severe to diminish the

integrity of these landscape features. The barriers are therefore considered long-term minor adverse impacts (no adverse effect under Section 106).

Cumulative Impacts. Other past, present and future projects within or adjacent to Independence National Historical Park have the potential to impact the Independence Square cultural landscape. The NPS proposed Comprehensive Sign Plan, restoration of the Independence Hall tower, the rehabilitation of Independence Square, and the rehabilitation of the north apron of Independence Hall all have potentially beneficial impacts; however, these projects do not lessen or increase the impact of the bicycle barricades on the square. Intended to address ways of finding and identifying features throughout the park, the Comprehensive Sign Plan would be expected to have a negligible impact on the cultural landscape. Restoration of the Independence Hall tower would be expected to have a long-term moderate beneficial impact (no adverse effect under Section 106) on the cultural landscape as the proposed project would preserve a feature of the cultural landscape and maintain the landscape's integrity. The rehabilitation of Independence Square followed the recommendations of the 1998 Cultural Landscape Report and implemented improvements consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* having a long-term moderate beneficial impact (no adverse effect under Section 106) on the Independence Square cultural landscape. Rehabilitation of the apron north of Independence Hall would result in a minor beneficial impact (no adverse effect under Section 106) to the cultural landscape.

The long-term negligible to moderate beneficial impacts on the cultural landscape in combination with the long-term minor adverse impacts of the bicycle barricades on the cultural landscape would continue to result in long-term minor adverse cumulative impacts (no adverse effect under Section 106) because these projects do not lessen or increase the impact of the bicycle barricades on the square as identified under alternative A.

Conclusion. Impacts to Independence Square's cultural landscape resulting from the no action alternative are negligible related to the maintenance of the screening facilities in Old City Hall and the Liberty Bell Center, and long-term minor adverse impacts (no adverse effect under Section 106) for the bicycle barricades segmenting the square. Cumulative impacts would be long-term minor and adverse (no adverse effect under Section 106). Based on this impact analysis, the no action alternative is not likely to result in any impacts that would constitute impairment of the cultural landscape.

Impacts of Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)

Analysis. Construction of a new permanent screening facility and perimeter fence at the LBC would have a negligible impact on the Independence Square cultural landscape.

Maintaining the current screening facility at Old City Hall would have a negligible impact on the Independence Square cultural landscape.

Installation of a six- to seven-foot high, reversible Iron Palisade fence stretching east-west across the square, when undertaken in concert with the cultural resources mitigation measures outlined above for security fencing, would impact the integrity of several character-defining features of the cultural landscape. The fence would bisect the axial orientation and views defining the square's central walkway. Although views of Independence Hall from the central walk would not be completely obscured by the fence, the views and axial orientation focused attention on Independence Hall. The fence would provide an obtrusive visual element into the landscape's principal formal view and obscure, perhaps, the most significant surviving feature of the original Samuel Vaughan landscape. The fence would also alter the spatial orientation of the square by creating a new boundary within the formal, open plan of the south square, effectively fashioning two incoherent spaces from one unified, designed space. The fence would also disrupt circulation patterns within the square by prematurely terminating the central walkway, originally designed to lead directly to the south entrance of Independence Hall, and the northern circular

walks of the Centennial Landscape. Construction of the fence could require removal of canopy trees or damage adjacent tree roots and result in the loss of trees from the landscape's contributing shade canopy. Thus, the fence would alter and diminish the integrity of character-defining features of the square's landscape. Despite these impacts, the overall integrity of the landscape would be maintained. Historical documents indicate that portions of the landscape were fenced to lessen security concerns at various times throughout the square's use as a commemorative landscape. In the early 1830s, an iron fence set atop a foundation was installed south of Independence Hall in order to secure the building. The New District Court building, located immediately south of Congress Hall between 1866 and 1901, also featured a perimeter iron fence enclosing its structure (Toogood 2004). Therefore construction of the fence, when implemented in concert with the cultural resources mitigation measures outlined for the construction of a security fence, would be a short-term and long-term moderate adverse impact (adverse effect under Section 106). The mitigation measures outlined for the security fence include using context sensitive design of the fence, including the installation of the fence posts into low brick piers capped with masonry copings similar in design to the marble wall copings that visually ties the fence into the northern side walls of the east and west entrances to the square. Additional design features include using a black, visually permeable fencing, gating the fence at the cobblestone drive in order to permit its continued historic use as a vehicle entrance, and setting the fence back from the walls bordering 5th and 6th Streets in order to limit the fence from dominating and obscuring views into and through the park. A series of interpretive panels would also be placed on both sides of the fence describing the historic appearance of the landscape and the current need for increased security measures to protect Independence Hall. Additional measures include a requirement that the NPS reassess security needs 10 years after the fence's installation, and every five years following, to determine whether security threats warrant the fence's continued presence, and removing the fence when circumstances permit its removal. In a similar vein, the NPS should periodically review advances in security technology and install less intrusive, if feasible, measures in lieu of major physical barriers when those measures become available. Additional mitigation involves re-establishing the double row of trees along the northern, Chestnut Street side of the Independence Square building complex in order to bring the site closer to its historic appearance and to provide additional protection to the building from street-side explosions, and replanting trees removed or damaged during construction of the fence to ensure a similar level of tree canopy throughout the south square.

Cumulative Impacts. Impacts related to past, present, and future actions at Independence National Historical Park that could affect the cultural landscape are the same as described in alternative A. The long-term negligible and moderate beneficial impacts on the cultural landscape, in combination with the long-term moderate adverse impacts of the security fence on the cultural landscape would continue to result in long-term moderate adverse cumulative impacts (adverse effect under Section 106) because these projects do not lessen or increase the severity of the fence's impact on the square as identified under alternative B.

Conclusion. Impacts to the Independence Square cultural landscape resulting from the various activities proposed under alternative B range from negligible impacts for the construction of a new screening facility at the Liberty Bell Center and the maintenance of the screening facilities at Old City Hall to short and long-term moderate adverse impacts for the installation of a security fence across the square (adverse effect under Section 106). Cumulative impacts would be long-term, moderate adverse impacts. Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of the cultural landscape.

Impacts of Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence

Analysis. Construction of a new permanent screening facility and perimeter fence at the Liberty Bell Center would have a negligible impact on the Independence Square cultural landscape.

Installation of a six- to seven-foot high, reversible Iron Palisade fence stretching east-west across Independence Square would have short- and long-term moderate adverse impacts on the square's cultural landscape as described under alternative B.

Construction of a new permanent visitor screening facility on Independence Square south of Congress Hall would impact several character-defining features of the cultural landscape. The current configuration of the building complex defining the northern end of the square would be altered slightly by the addition of the permanent screening facility. The new building would also require the removal of the cobblestone drive, a feature of the landscape's circulation system, as well as the drive's associated side retaining walls, bollards and chains, and cannon fenders, also contributing character-defining features. Trees comprising part of the landscape's character-defining tree grove that contribute to the shade canopy may also be removed or damaged during the construction of the new building. These alterations to the landscape would collectively diminish the integrity of character-defining features of the landscape. The site chosen for the new screening facility once contained another building, the New District Court, between 1866 and 1901. While the new screening facility would not attempt to replicate the earlier building, the new building would be reminiscent of the landscape's appearance during the period of the courthouse's existence. Impacts to the cultural landscape due to the new screening facility's construction taken in concert with the cultural resources mitigation measures outlined for construction of a new permanent visitor screening facility on Independence Square, would constitute short- and long-term moderate adverse impacts to the cultural landscape (adverse effect under Section 106). These mitigation measures include context sensitive design of the new screening building that take into account the historic nature of building's landscape and the materials and symmetry of the historic building complex on the north end of Independence Square. Additional measures include ensuring the preservation of the adjacent historic retaining walls, the replanting of trees to ensure a similar level of tree canopy throughout the south square, and the installation of public interpretation panels describing the evolution of the square's landscape.

Removal of the temporary visitor screening facility from Old City Hall would have a negligible impact on the Independence Square cultural landscape.

Cumulative Impacts. Impacts related to past, present, and future actions at Independence National Historical Park that could affect the cultural landscape are the same as described in alternative A. The long-term negligible and moderate beneficial impacts on the cultural landscape, in combination with the long-term moderate adverse impacts of the security fence and the new permanent screening facility on the cultural landscape would continue to result in long-term moderate adverse cumulative impacts (adverse effect under Section 106) because these projects do not lessen or increase the severity of the fence or new screening facility's impact on the square as identified under alternative C.

Conclusion. Impacts to the Independence Square cultural landscape resulting from the various activities proposed under alternative C range from negligible impacts for the construction of a new screening facility at the Liberty Bell Center and removal of the screening facilities from Old City Hall, to short and long-term moderate adverse impacts (adverse effect under Section 106) for the installation of a security fence across the square and for construction of the new screening facility south of Congress Hall. Cumulative impacts would remain long-term, moderate adverse impacts (adverse effect under Section 106). Based on this impact analysis, alternative C is not likely to result in any impacts that would constitute impairment of the cultural landscape.

HISTORIC STRUCTURES AND DISTRICTS

The proposed alternatives would impact the American Philosophical Society Hall NHL and resources contributing to the National Register-listed Independence National Historical Park historic district.

Methodology and Intensity Thresholds

For an historic district or structure to be listed on the National Register of Historic Places, it must possess significance (the meaning or value ascribed to the historic district or structure) and have integrity of those features necessary to convey its significance. For purposes of analyzing potential impacts to historic districts and structures, the thresholds of change for the intensity of an impact are defined as follows:

Negligible: The impact is at the lowest level of detection with neither adverse nor beneficial consequences. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor: Adverse impact — Alteration of a pattern(s) or feature(s) of a historic district or structure listed on or eligible for the National Register of Historic Places would not diminish the integrity of a character-defining feature(s) or the overall integrity of the historic property. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Beneficial impact — The character-defining features of the historic district or structure would be stabilized/preserved in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (NPS 1995), to maintain its existing integrity. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate: Adverse impact — The impact would alter a character-defining feature(s) of a historic district or structure and diminish the integrity of that feature(s) of the historic property. For purposes of Section 106, the determination of effect would be *adverse effect*.

Beneficial impact — The historic district or structure would be rehabilitated in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* to make possible a compatible use of the property while preserving its character defining features. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major: Adverse impact — The impact would alter a character-defining feature(s) of the historic district or structure and severely diminish the integrity of that feature(s) and the overall integrity of the historic property. For purposes of Section 106, the determination of effect would be *adverse effect*.

Beneficial impact — The historic district or structure would be restored in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* to accurately depict its form, features, and character as it appeared during its period of significance. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Duration: Short-term impacts would last for the duration of construction activities associated with the proposed alternative; long-term impacts would last beyond the construction activities.

Impacts of Alternative A – No Action Alternative

Analysis. Under the no action alternative, the maintenance of the current temporary visitor screening facilities in Old City Hall would continue to impact the interior historic spaces of that building, a contributing element to the Independence National Historical Park historic district. This impact has previously been determined by the NPS to be an adverse effect in terms of Section 106. Installation of the screening devices in the Old City Hall's vestibule and exhibit room, and related panels to physically and visually separate visitors from the southern portion of the Supreme Court chamber diminishes the

integrity of Old City Hall's historic interior spaces. The increased traffic and new visitor paths required by the screening equipment's placement would continue to impact much of Old City Hall's original historic fabric including the north entrance's double doors with its sliding bolts, fold-back strap hinges, and door frames, the west exit doors with their associated frames, fanlight, and limestone step, and the southwest door, frame and limestone sill. This impact under the no action alternative, taken in concert with the cultural resources mitigation measures outlined for the permanent visitor screening facility in Old City Hall, would be a long-term, moderate adverse impact. The mitigation measures for Old City Hall include: removing and storing the historic doors, hardware and related features and replacing same with reproduction doors, hardware and related features; installing a wood ramp over the southwest Supreme Court doorway in order to facilitate accessibility for handicapped visitors and to preserve the historic door frame, trim, casing and stone stoop; placing rubber protection mats to protect the existing wood floors in each screening location; and applying a color compatible with the existing/historical color scheme on the temporary partitions used to direct visitors through Old City Hall.

Maintenance of the bicycle barricades around Independence Hall and Independence Square would impact the historic district's integrity of setting and feeling. Although visually unappealing, the impact of the barriers is not sufficient to diminish the integrity of the historic district and is considered a minor long-term adverse impact (no adverse effect under Section 106).

Maintenance of the current screening facilities under the no action alternative would have negligible impacts, or no adverse effect under Section 106, on the American Philosophical Society Hall, the INHP historic district, and individual contributing elements of the historic district.

Continuing the current screening facilities at the Liberty Bell Center would have negligible impacts, no adverse effect under Section 106, on the Liberty Bell housed within the Liberty Bell Center, the INHP historic district, and Philosophical Hall.

Cumulative Impacts. Other past, present and future projects within or adjacent to Independence National Historical Park have the potential to impact historic structures and districts. The restoration of the Independence Hall tower, the rehabilitation of Independence Square, and the rehabilitation of the north apron of Independence Hall all have potentially beneficial impacts; however, these projects do not directly ameliorate the long-term moderate adverse impact of maintaining the visitor screening facility in Old City Hall. These future actions would be conducted following the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and would have long-term minor (apron) and moderate (square rehabilitation and tower restoration) beneficial impacts on contributing elements of the Independence National Historical Park historic district as they rehabilitate and restore historic, contributing elements of the park's historic district.

The long-term minor to moderate beneficial impacts on the park's historic structures and districts, in combination with the long-term moderate adverse impacts of maintaining the visitor screening facility in Old City Hall would continue to result in long-term moderate adverse cumulative impacts (adverse effect under Section 106) because these projects do not directly improve or degrade the impacts of screening in Old City Hall as identified under alternative A.

Conclusion. The no action alternative would result in moderate long-term adverse impacts to Old City Hall (adverse effect in terms of Section 106). Cumulative impacts to historic districts or structures would remain long-term adverse and moderate to the Old City Hall (adverse effect under Section 106). Based on this impact analysis, the no action alternative is not likely to result in any impacts that would constitute impairment of historic structures or districts.

Impacts of Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)

Analysis. Maintenance of the current screening facilities on a permanent basis at the Old City Hall would remain a moderate long-term adverse impact (adverse effect under Section 106) as described under alternative A.

Construction of a permanent visitor screening facility and a permanent security fence at the Liberty Bell Center would have a negligible impact (no adverse effect under Section 106) on the Liberty Bell housed within the Liberty Bell Center, other contributing elements of the INHP historic district, and the American Philosophical Society Hall.

Construction of a six- to seven-foot high, reversible Iron Palisade fence linking the southeast corner of the American Philosophical Society Hall and the southwest corner of Congress Hall, when undertaken in concert with the cultural resources mitigation measures outlined above for security fencing, would impact the integrity of setting and feeling of the Independence National Historical Park historic district by introducing a new element into the district. In addition, shade canopy trees contributing to the district's setting and feeling may also be removed or damaged during the new building's construction. The historic district's integrity of setting and feeling would be diminished but not sufficiently to diminish the overall integrity of the district. As a result, the impacts would be short-term moderate adverse impacts (adverse effect under Section 106) during installation of the fence and long-term moderate adverse impacts (adverse effect under Section 106) following installation of the fence. The mitigation measures outlined for the security fence include context sensitive design of the fence, including the installation of the fence posts into low brick piers capped with masonry copings similar in design to the marble wall copings that visually ties the fence into the northern side walls of the east and west entrances to the square. Additional design features include using black, visually permeable fencing, gating the fence at the cobblestone drive to permit its continued historic use as a vehicle entrance, and setting the fence back from the walls bordering 5th and 6th streets in order to limit the fence from dominating and obscuring views into the park. A series of interpretive panels would also be placed on both sides of the fence describing the historic appearance of the district and the current need for increased security measures to protect Independence Hall. Additional measures include a requirement that the NPS reassess security needs 10 years after the fence's installation, and every five years following, to determine whether security threats warrant the fence's continued presence, and removing the fence when circumstances permit its removal. In a similar vein, the NPS would periodically review advances in security technology and install, if feasible, less intrusive measures in lieu of major physical barriers when those measures become available. Additional mitigation involves re-establishing the double row of trees along the northern, Chestnut Street side of the Independence Square building complex in order to bring the site closer to its historic appearance and to provide additional protection to the buildings from street-side explosions, and replanting trees removed or damaged during construction of the fence to ensure a similar level of tree canopy throughout the south square.

Construction of the fence would also impact the setting of Philosophical Hall by introducing a new element adjacent to its southeastern wall. The impact would not diminish the integrity of the building's setting however. The impact would be a short-term minor adverse impact during the fence's construction (no adverse effect under Section 106) and a long-term minor adverse impact (no adverse effect under Section 106) following its installation.

Cumulative Impacts. Impacts related to past, present, and future actions at Independence National Historical Park that could affect historic structures and districts are the same as described in alternative A. The long-term minor to moderate beneficial impacts on park historic structures and districts, in combination with the long-term moderate adverse impacts of the security fence on the Independence National Historical Park and Philosophical Hall and the maintenance of screening facilities in Old City Hall would continue to result in long-term moderate adverse cumulative impacts (adverse effect under

Section 106) because these projects do not lessen or increase the severity of the impact of the fence or screening facility as identified under alternative B.

Conclusion. Impacts to the Independence National Historical Park historic property and Philosophical Hall resulting from the various activities proposed under alternative B range from short-term and long-term moderate adverse impacts (adverse effect under Section 106) during construction of the security fence south of Congress and Philosophical Halls to long-term moderate adverse impacts (adverse effect under Section 106) to Old City Hall for the maintenance of the screening facilities in the building's interior. Cumulative impacts associated with alternative B from ongoing or expected future projects would remain long-term moderate adverse impacts (adverse effect under Section 106). Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of historic structures or districts.

Impacts of Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence

Analysis. Construction of a new permanent visitor screening facility and security fence at the Liberty Bell Center would have a negligible impact (no adverse effect under Section 106) on the Liberty Bell, other contributing elements of the INHP historic district, and the American Philosophical Society Hall as described in alternative B.

Construction of a new permanent visitor screening facility on Independence Square south of Congress Hall, taken in concert with the cultural resources mitigation measures outlined for construction of the new visitor screening facility on Independence Square, would impact the integrity of the park's setting, feeling and design by introducing a substantial new non-historic structure into the historic district. In addition, shade canopy trees contributing to the district's setting and feeling may also be removed or damaged during the new building's construction. The introduction of a new structure would diminish the district's integrity but not severely enough to diminish the district's overall integrity. The new visitors screening facility's impact would therefore be a moderate short-term adverse impact (adverse effect under Section 106) during its construction and a long-term moderate adverse impact (adverse effect under Section 106) to the historic district upon its completion. Another building, the New District Court, stood on the proposed location of the new screening facility between 1866 and 1901. Although the new facility would not replicate that earlier courthouse, the building's placement would be reminiscent of the historic district's appearance during the period of the courthouse's existence. Mitigation measures would include context sensitive design of the new screening building that take into account the historic nature of building's setting and the materials and symmetry of the historic building complex on the north end of Independence Square. Additional measures include ensuring the preservation of the adjacent historic retaining walls, replanting trees removed or damaged during construction of the new facility to ensure a similar level of tree canopy throughout the south square, and installing public interpretation panels describing the site's earlier use as the New District Court.

Removal of the temporary visitor screening facility from Old City Hall permitted by the construction of the permanent visitor screening facility south of Congress Hall would return the Old City Hall to its original condition and would permit its rehabilitation following the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and return the building to its condition prior to the installation of the temporary screening facility. As a result, removal of the screening equipment would be a moderate long-term beneficial impact (no adverse effect under Section 106) to the Old City Hall.

Construction of a six- to seven-foot high security fence east-to-west south of the American Philosophical Society Hall and Congress Hall would be a short-term and long-term moderate adverse impact (adverse effect under Section 106) on the Independence National Historical Park historic district, and a short- and long-term minor adverse impact (no adverse effect under Section 106) to the American Philosophical Society Hall NHL, as described in alternative B.

ARCHEOLOGICAL RESOURCES

Methodology and Assumptions

As archeological resources exist essentially in subsurface contexts, potential impacts to archeological resources are assessed according to the extent to which the proposed alternatives would involve ground-disturbing activities such as excavation or grading. Analysis of possible impacts to archeological resources was based on a review of previous archeological studies, consideration of the proposed design concepts, and other information provided by the NPS.

Study Area

There are two primary areas where impacts to archeological resources may occur: (1) the areas on Block 1 of Independence Mall, immediately adjacent to the existing Liberty Bell Center where ground-disturbing activities would result from construction of the temporary and permanent screening facilities; and (2) the north half of Independence Square where ground disturbing activities would occur from construction of a security fence (alternatives B and C) and from construction of a permanent screening facility behind the West Wing of Independence Hall (alternative C). Additional impacts may occur in the adjacent areas where new utility work may be required.

Impact Thresholds

Impacts to archeological resources occur when the proposed alternative results in whole or partial destruction of the resource, which is termed a loss of integrity in the context of Section 106. Impact thresholds for archeological resources consider both the extent to which the proposed alternative results in a loss of integrity and the degree to which these losses can be compensated by mitigating activities, such as preservation or archeological data recovery. The process begins with assessment of a resource according to its eligibility for the National Register of Historic Places (NRHP), as only sites considered significant enough for listing on the NRHP are protected by federal regulations.

Under federal guidelines, resources are eligible for the NRHP if they possess integrity and they meet one or more of the criteria of eligibility for inclusion in the NRHP. Most archeological resources found eligible for the NRHP significant under criterion D because they have the potential to provide important information about the history or prehistory. However, in some circumstances, archeological resources might be found significant because (i) they are associated with events that have made a significant contribution to the broad patterns of our history (NRHP criterion A), or (ii) because they are associated with the lives of persons significant in our past (NRHP criterion B), or (iii) because they the distinctive characteristics of a type, period, or method of construction (NRHP criterion C). Given the established historical significance of Independence National Historical Park, archaeological resources associated with the Park's period of historic significance should be considered not only in terms of criterion D, but also with respect to criteria A and B (see *National Register Bulletin #15, How to Apply the National Register Criteria for Evaluation*).

For purposes of analyzing impacts to archeological resources, thresholds of change for the intensity of an impact are based on the foreseeable loss of integrity. All of these discussions consider only the direct impacts of construction, because operation of the facilities should have no ground disturbance activities and no additional effect on archeological resources under any of the alternatives under consideration. All impacts are considered long-term (e.g., lasting longer than the period of construction).

Impact Thresholds

- Negligible* — Impact is at the lowest levels of detection with neither adverse nor beneficial consequences. The determination of effect for Section 106 would be *no adverse effect*.
- Minor* — Adverse impact — Disturbance of a site(s) results in little, if any, loss of integrity. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Beneficial impact — A resource would be preserved in its pre-existing condition. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate — **Adverse impact** — Disturbance of a site(s) results in loss of integrity to the extent that there is a partial loss of the character-defining features and information potential that form the basis of the site's NRHP eligibility. Mitigation is accomplished by a combination of archeological data recovery and in place preservation. The determination of effect for Section 106 would be *adverse effect*.

Beneficial impact — The site would be stabilized. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major — **Adverse impact** — Disturbance of a site(s) results in loss of integrity to the extent that it is no longer eligible for the NRHP. Its character-defining features and information potential are lost to the extent that archeological data recovery is the primary form of mitigation. The determination of effect for Section 106 would be *adverse effect*.

Beneficial impact — The site would be actively stabilized/preserved in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* to accurately depict its form, features, and character as it appeared during its period of significance. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Duration — All impacts to archeological resources are considered long-term.

Impacts of Alternative A – No Action Alternative

Analysis. Under the no action alternative, there would be no impacts to archeological resources, since no ground-disturbing activities would occur. Existing archeological resources would remain undisturbed.

Cumulative Impacts. Since no impacts are projected under the no action alternative, no cumulative impacts would occur.

Conclusion. Implementation of the no action alternative would result in no direct, indirect, beneficial or adverse impacts to archeological resources in the study area. Cumulative effects of the no action alternative on archeological resources would not occur. Based on this impact analysis, the no action alternative is not likely to result in any impacts that would constitute impairment of archeological resources.

Impacts of Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)

Analysis. Construction of a permanent screening facility at the Liberty Bell Center would have a negligible impact on archeological resources. At present, there is a temporary screening facility along the west side of the Liberty Bell Center. This temporary screening facility would be replaced by a permanent screening facility, using essentially the same building footprint. During construction of the permanent screening facility, a new temporary screening facility would be placed on the east side of the Liberty Bell Center. The Area of Potential Effects (APE) for archeological resources would include the building footprints for the temporary and permanent screening facilities and any adjacent areas that would be excavated for utility lines. These areas have already been thoroughly investigated for archeological resources. Mitigation of the adverse effects associated with construction of the Liberty Bell Center has already been accomplished by archeological data recovery (Yamin and Pitts 2000; Yamin et al. 2004).

Ground disturbance from construction of the screening facilities would be confined to recently disturbed areas, and any undocumented archeological resources in the area would be expected only in deeply buried

contexts. The surface and near-surface soils were disturbed by the razing of the entire block in the early 1950s and more recently by construction of the Liberty Bell Center and attendant landscaping. The temporary and permanent screening facilities would be built on at-grade slab foundations and the necessary utilities would be confined to previously disturbed areas.

During the previous archeological investigation for the Liberty Bell Center, a large octagonal icehouse was identified in the general area of the Liberty Bell Center. The icehouse is believed to be the only surviving feature that is associated with the period when the property served as the executive mansion, so it is important not only as an example of late 18th-century domestic refrigeration technology but also because it relates to the occupation by Presidents George Washington and John Adams. The surviving archeological remains of the icehouse were fully documented and preserved in place and would not be disturbed by construction of the screening facilities at the Liberty Bell Center.

Installation of a security fence across Independence Square would disturb a swath of the existing landscape between 5th and 6th Streets, immediately to the north of the east-west walkways that radiate from the Barry Statue. Impacts to archeological resources may occur as a result of excavations to install the wall foundation as well as installation of new plantings and re-routing of existing utility lines. Previous investigations in Independence Square have demonstrated that the archeological record is a complex, layered landscape that expresses the physical history of the site from the Colonial period to the present day. The square presently preserves numerous features associated with the three formal landscapes that have been imposed on the site from late 18th to early 20th centuries, including elements of the circulation system (pavements, stairs, walkways, etc.), fencing, drainage, and fill deposits. Remnants of the natural landscape as it existed in Colonial times are present, and there is also evidence of a Revolutionary War military encampment on the square.

Known archeological resources that would be disturbed by the security fence include remnants of Vaughan's Walk, which is an element of the late 18th century landscape plan; other archeological resources might be present in areas that have not been investigated. Impacts to archeological resources could range from negligible to moderate adverse, depending on the depth and configuration of the foundation for the new fence and on the presence of archeological resources that have not yet been identified.

Possibly the most important archeological resource in Independence Square would be the foundation of the Transit of Venus Observatory. Identification of this site has been a goal of archeological study in the Park since the 1950s, and the site would have historical significance as the reputed location of the first public reading of the Declaration of Independence. Unambiguous archeological evidence of this structure has not been identified, but the most recent studies place its location in the Southwest Quadrant of Independence Square, which would be outside the APE.

Prior to the initiation of construction of the security fence across Independence Square, NPS would complete additional archeological studies to fully investigate the APE in accordance with the requirements of Section 106, to ensure that all significant archeological properties are identified and appropriately treated to mitigate any adverse effects.

Under alternative B, the screening facility would remain at its present location in the vestibule of Old City Hall. There would be no impacts to archeological resources from this element of alternative B.

Cumulative Impacts. Other past, present and future projects within or adjacent to Independence National Historical Park have the potential to impact archeological resources within the park. Located in the historic core of one of the nation's oldest and most historically significant cities, there is a correspondingly rich archeological record. Much of this record has been preserved in the park, but ongoing urban development in the surrounding neighborhood has resulted in an irretrievable loss of important archeological resources. The cumulative effects of foreseeable future development within the park would include activities such as landscape rehabilitation, installation of signage, and restoration of

historic structures, and these activities are subject to the requirements of Section 106. The NPS would undertake archeological studies to ensure that important archeological resources are avoided, preserved in place, or fully documented prior to new construction, so that all impacts would be long-term, negligible to minor adverse. Development outside the park is likely to result in continued loss of archeological resources, but as these developments would occur outside the Section 106 and NEPA review processes, it is not possible to accurately predict their frequency or intensity. Impacts to archeological resources from these other projects, when combined with the activities proposed under alternative B, would be long-term and range from negligible to minor adverse.

Conclusion. Activities associated with the implementation of alternative B that would require subsurface excavation or ground disturbing activities would have adverse long-term negligible to moderate impacts (no adverse effect under Section 106) to archeological resources. However, these impacts would be mitigated through archeological data recovery or preservation in place. The cumulative impacts to archeological resources associated with alternative B would be long-term, negligible to minor adverse. Based on this impact analysis, alternative B is not likely to result in any impacts that would constitute impairment of archeological resources.

Impacts of Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence

Analysis. Alternatives B and C share many common elements, so many effects to archeological resources would be identical:

- Construction of the permanent screening facility adjacent to the Liberty Bell Center would have a negligible effect on archeological resources, as impacts would be limited to recently disturbed areas. Previous archeological studies completed in connection with construction of Liberty Bell Center have identified significant resources in this area, and adverse effects have been mitigated by archeological data recovery. A late 18th-century icehouse associated with the executive mansion is present in this area, but it would not be disturbed by construction for the new screening facility
- Construction of the security fence across Independence Square would have an adverse impact on archeological resources, ranging from negligible to moderate. Resources that could be disturbed include landscape features associated with the Vaughan and Centennial Landscapes, the foundation of the New District Court Building, and a possible Revolutionary War military encampment. Potentially the most important archeological resource would be the foundation of the Transit of Venus observatory, but it is currently believed that this site is outside the APE.

The principal difference between alternatives B and C is that alternative C would include construction of a new visitor screening facility in Independence Square, at a location south of Congress Hall along 6th Street. Previous studies in this area indicate that a variety of archeological resources are present in this area, including features associated with the Vaughan and Centennial Landscapes and the foundation of the New District Court Building. Adverse impacts to these resources under alternative C could range from minor to moderate. If the new screening facility is constructed on an at-grade slab and utility lines are confined to previously excavated trenches, only minor impacts would occur. Moderate impacts would occur if the new construction results on some loss of integrity to the archeological resources. NPS would mitigate these adverse effects prior to new construction by undertaking studies to identify and document archeological resources in the APE.

Cumulative Impacts. Impacts related to past, present, and future actions at Independence National Historical Park that could affect archeological resources are the same as described in alternative B. The long-term negligible to minor adverse impacts on park archeological resources, in combination with the long-term minor to moderate adverse impacts of the construction of the new screening facility, would result in long-term negligible to minor adverse cumulative impacts.

Conclusion. Activities associated with the implementation of alternative C that would require subsurface excavation or ground disturbing activities could have adverse long-term negligible to moderate impacts (no adverse effect under Section 106) to archeological resources. However, these impacts would be mitigated through archeological data recovery or preservation in place. The cumulative impacts to archeological resources associated with alternative C would be long-term, negligible to minor adverse. Based on this impact analysis, alternative C is not likely to result in any impacts that would constitute impairment of archeological resources.

VISITOR USE AND EXPERIENCE

METHODOLOGY AND ASSUMPTIONS

The purpose of this impact analysis is to determine if the proposed security improvements at the Liberty Bell Center and at Independence Square would deter from or help accomplish the desired visitor goals for Independence National Historical Park. These visitor goals were outlined in the 1997 General Management Plan for the park (NPS 1997) and re-evaluated again in the workshops for the Long-range Interpretive Plan that were conducted in 2005 and discussed in the “Affected Environment.” The GMP indicated that the park would share in creating outstanding visitor experiences by accomplishing the following (paraphrased):

- Orienting visitors by providing pre-arrival and onsite visitor orientation and information that provides a comprehensive view of the park, city, and region
- Strengthening Independence Mall by instituting planning and design for the Mall that would respect the historical significance of Independence Hall and the Liberty Bell and provide a dignified setting for both
- Emphasizing pedestrian experience through well defined circulation routes and a reinforced pedestrian environment that strengthens the character of the park and increases safety
- Fostering special uses that provide a setting for the First Amendment rights demonstrations, ceremonies, and other activities related to the park’s purpose, significance, and management policies
- Securing the visitor experience by working with neighborhood organizations and the city to foster public safety so that visitors can fully enjoy their park experience and the surrounding urban environment
- Enhancing heritage development through cooperation with city, state, and community partners

These goals are further defined by responses from NPS staff and park partners during planning workshops in 2005 for the Long-Range Interpretive Plan for Independence National Historical Park that is currently underway. These interpretive goals incorporate some of these changes that have occurred related to security needs in the post 9/11 environment at the park. Workshop participants indicated that the interpretive program at Independence National Historical Park would be most effective when it includes the following opportunities:

- Visitors find and navigate through the park easily and to experience the park as a safe haven while minimizing the inconvenience necessitated by security procedures
- Visitors encounter the park story in its fuller context as it affected all people
- Visitors experience the park with as much choice as possible and with sensitivity to visitor needs due to such issues as security, historic preservation, or crowd control

- Visitors experience the park as a place where all ages, especially younger visitors, can have fun while learning to use modern technology where appropriate as well as a variety of hands-on or interactive programs.

The impacts to visitor use and experience associated with the proposed security changes in each alternative and their respective magnitude were determined by identifying whether these goals were accomplished and/or the issues identified in the “Visitor Use and Experience” section of the “Affected Environment” were improved or resolved.

The park provided information sources for the impact analysis. Some information was in hard copy and is noted by reference in the analysis below. Other information was provided verbally to the project team during internal scoping meetings at the park on May 17, 2006 and is recorded in meeting minutes.

Independence National Historical Park’s traditionally-associated groups, including the American Philosophical Society; National Society of Colonial Dames of America; the Southeastern Cherokee Confederacy of Pennsylvania; Descendants of the Signers of the Declaration of Independence; Friendly Sons of St. Patrick; Independence Hall Association; National Freedom Day Association; Sons of Union Veterans of the Civil War; Pennsylvania Society of Sons of the American Revolution; National Society of the Daughters of the American Revolution; Society of Free Quakers; and Patriotic Order of Sons of America have a variety of interest in the park resources. The many traditional practices that take place at Independence National Historic Park cover a wide range of groups, and do not have a designated representative organization. The following practices and the concerns of those involved in these practices will be considered during public coordination and consultation: public dissent, parades, public speeches and ceremonies, wreath laying, enlistment and reenlistment ceremonies at the Liberty Bell, and naturalization ceremonies on the square or in Congress Hall. Traditionally-associated groups and traditional practices were considered from the aspect of all visitor use and experience, herein; as stated, potential impacts to vista, cognition, and access are considered under cultural landscapes and historic structures and districts.

STUDY AREA

The study area encompasses the Liberty Bell Center and the northern half of Independence Square that contains Old City Hall, Independence Hall, Congress Hall, and the Philosophical Hall where security changes are proposed and would be implemented.

IMPACT THRESHOLDS

Negligible – Visitors would likely be unaware of any effects associated with implementation of the alternative. There would be no noticeable change in visitor use and experience or in any defined indicators of visitor satisfaction or behavior.

Minor – Changes in visitor use and/or experience would be slight and detectable, but would not appreciably limit or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable.

Moderate – A few critical characteristics of the desired visitor experience would change and/or the number of participants engaging in a specified activity would be altered. Some visitors who desire their continued use and enjoyment of the activity/visitor experience might pursue their choices in other available local or regional areas. Visitor satisfaction would begin to either decline or increase.

Major – Multiple critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be greatly reduced or increased. Visitors

who desire their continued use and enjoyment of the activity/visitor experience would be required to pursue their choices in other available local or regional areas. Visitor satisfaction would markedly decline or increase.

Duration – Short-term impacts would occur sporadically throughout a year. Long-term impacts would occur more than one year.

Impacts of Alternative A – No Action Alternative

Analysis. Maintaining the temporary, experimental visitor screening facilities adjacent to the west wall of the Liberty Bell Center and within Old City Hall prior to entering Independence Square would most likely not affect existing or anticipated future visitation increases at the park. The new facilities that have been constructed in the past six years, such as the Independence Visitor Center, the Liberty Bell Center, and the National Constitution Center, as well as other planned improvements would most likely continue to attract existing and new visitors. Although increased visitation is anticipated, the annual percentage increase that might occur is unknown, but would not be nearly as substantial as the roughly 80% to 150% change in visitation that was experienced at the new Liberty Bell Center, National Constitution Center, and Old City Hall after 2003 when the new facilities were opened. Additionally, visitors are becoming increasingly familiar and more accepting of security procedures in airports, federal buildings, and in other iconic parks throughout the nation beginning with the Oklahoma City bombings and further amplified by the events of September 11, 2001. Although some visitors may continue to be deterred by the two screening facilities at the park and the time commitment involved in waiting in both queuing lines, it is anticipated that this potential loss of visitation would be negated by the additional visitation that would result from new facilities and opportunities at the park.

Security Zones and Fencing. Bicycle barricades would continue to be configured around the perimeter of the Liberty Bell Center and the northern half of Independence Square resulting in two separate secure zones. “Restricted Access” signs and an increased law enforcement presence would also be required. These barricades would continue to intrude upon the cultural landscape surrounding Independence Hall and result in long-term minor to moderate adverse impacts to visitor experience depending upon each visitor’s individual preferences, particularly their sensitivity to the historic characteristics of the square and the value they place on freely moving throughout the park unobstructed by security structures.

The bicycle barricades would continue to be an unsightly addition to the area because they are not compatible with the surrounding historic landscape and structures. However, because the barricades appear temporary and removable, they would not convey permanence to some visitors and, therefore, may not adversely affect their experience. For others, this visual impact would continue to be adverse.

Some visitors would continue to find the barriers restrictive to their personal freedom. However, by providing an established perimeter, visitors would be able to experience the Liberty Bell Center and Independence Hall at their own pace and roam unrestricted through the interior of the two fenced, secured areas. The two fenced areas and two separate screening sites provide visitors a greater opportunity to explore the two sites rather than having to be escorted across streets, such as Chestnut, as was the case prior to implementing the two security screening points this year. There were more visitor complaints with the single screening process where visitors were screened at the Liberty Bell Pavilion and escorted by security personnel across Chestnut Street than with this double screening process that has been in place since March 1, 2006 (NPS 2006d). The barricades also potentially interfere with special events and First Amendment demonstrations on Independence Square because of the way it bisects the northern half of the square. However, the grassy area to the east of the Liberty Bell Center and the eastern perimeter of the bicycle barricades would remain open and available for such events and demonstrations resulting in long-term minor adverse impacts to visitor use.

Security Screening. As noted above, security screening would continue to occur in the same locations and using the same process that was instituted in March 2006 and is explained in the “Visitor Use and Experience” section of the “Affected Environment.” Screening for the Liberty Bell Center would occur in the temporary structure on the west side of the Center adjacent to 6th Street. Screening for Independence Square including Old City Hall, Independence Hall, and Old Congress Hall would occur in Old City Hall, entering from the corner of Chestnut and 5th Streets.

Screening in these two locations would continue to cause long-term moderate adverse impacts to visitor experience. Many visitors would continue to arrive unprepared for or unfamiliar with the security screening process at the park and would be uncertain of expectations related to this screening. They would experience a wait in the queuing lines to be screened at each location resulting in a noticeable increase in the amount of time required to visit the park. This increased time could serve as a deterrent to some visitors or result in additional complaints; however, some park staff indicated that as long as screening times are minimized complaints are negligible (NPS 2006d). The additional time required to negotiate both screening facilities has resulted in an overall decrease in visitor satisfaction (INHP 2005b).

Additionally, potential health and safety issues (discussed in a later section) would continue to affect visitor comfort while waiting in the queuing lines outside at both locations. Visitors would continue to have to exit either secure area to access public restrooms and be screened a second time if they chose to re-enter the area they left to use these facilities. This would be an inconvenience and even more time-consuming for families with young children. In the event of an emergency, staff restrooms are available within the secure zones.

Interpretive staff or staff of partnering groups would continue to be present in the Independence Visitor Center and along the security queuing lines to educate visitors about the security process and about the park resulting in some long-term minor beneficial impacts to visitor experience. Interpretive rangers indicate that the public reaction to security measures is one of understanding and appreciation for the park security measure because of events related to 9/11 and how the world has changed in an effort to combat terrorism. Visitors generally understand that these measures were instituted with them in mind and they provide some sense of safety (NPS 2006d). The interpretive rangers use the queuing time as an opportunity to talk about the balance of personal freedom and public safety. As noted during workshops for the Long-Range Interpretive Plan (NPS 2006a), these are essential questions that connect the principles of the American Revolution and make them tangible and relevant to modern audiences.

Liberty Bell Center- The continued presence of the white, temporary screening building next to the newly constructed Liberty Bell Center would continue to be a long-term moderate adverse impact to visitors approaching the building because it is not consistent with the design of the Liberty Bell Center and distracts from the dignified setting and historical significance of the Liberty Bell. According to some, the screening station shows little regard for the surrounding architecture and, if allowed to remain, would be a detriment to the mall plan conceived by Olin Partnerships – a plan that was to create an inviting mall with vistas, connecting paths, and lively public buildings. A key vista is now blocked by the prefabricated screening building at the Liberty Bell Center. Additionally, the designer of the Center, Bernard J. Cywinski, sought to create a transparent garden building that would provide people on 6th Street the opportunity to see through to the mall’s landscape. However, the screening building now blocks those windows and the views of the mall for visitors (Saffron 2006). Additionally, visitors now wait in line along 6th Street causing clusters of people in locations that were traditionally free-flowing and open.

Old City Hall – The presence of screening facilities in Old City Hall, as well as the addition of the white panels in the Supreme Court chamber that serve as a physical and visual separation between the 1st floor gallery and the court room, would continue to disturb visitors’ historical view of Old City Hall,

particularly of the Supreme Court chamber, during their guided tours and result in long-term minor to moderate adverse impacts to visitors depending upon visitor preferences.

Prior to implementation of screening in this building, visitors were able to view the Supreme Court chamber as it would have appeared 216 years ago in 1790. With continued screening in this building, visitors touring Old City Hall would not be able to access the courtroom from the vestibule or exhibit room, but would continue to enter from the southwest door at the back of the building. The vestibule and exhibit room would no longer be part of the tour. Softer building elements such as plaster wall finishes, curtains and drapes, historic exhibit collections, and wooden trim would suffer from the change in building use and become more visible to visitors over time resulting in a further decline in visitor experience.

Cumulative Impacts

Other past, present, and future activities within or adjacent to Independence National Historical Park have the potential to beneficially impact visitor use and experience at the park and potentially reduce some of the adverse impacts associated with the security zones and screening activities in alternative A. The Long-Range Interpretive Plan, which is currently being developed, defines the overall vision and long term (7–10 years) interpretive goals of the park. These goals incorporate new changes within the park, such as the meaning of the security measures that have been implemented over the past 5 years in relationship to the significance of the park. From the process that develops, the LRIP will evolve realistic strategies and actions at the park that work toward achievement of these interpretive goals. This LRIP, as well as other new interpretive opportunities such as the exhibits at the President's House site at 6th and Market Streets, would result in long-term moderate beneficial impacts to visitor experience related to interpretation.

Other beneficial plans and actions such as the Design Guidelines for the Mall, the planned rehabilitation of Independence Square, and the landscaping of the Independence Mall would result in continued improvements to the overall visual characteristics of Independence Mall and cultural landscape of Independence Square through implementation of consistent design standards and improved visitor access. Visitor access, wayfinding, and orientation would also be improved by the implementation of the Comprehensive Sign Plan. These actions, if successfully funded, would also result in long-term moderate beneficial impacts to visitor use and experience.

The long-term moderate beneficial impacts associated with these projects in combination with the generally moderate long-term adverse impacts of alternative A would continue to result in long-term minor to moderate adverse cumulative impacts because of the strength of public reaction and controversy associated with the actions in alternative A, such as the temporary screening building at the Liberty Bell Center and the restriction of personal freedom resulting from the barricades.

Conclusion. The bicycle barricades would continue to intrude upon the Independence Square cultural landscape and result in long-term minor to moderate adverse impacts to visitor experience depending upon visitor sensitivity to the historic characteristics of Independence Square and the value they place on freely moving throughout the park unimpaired by security structures. Additionally, the presence of the white, temporary screening building next to the Liberty Bell Center would continue to be a long-term moderate adverse impact to visitors approaching the building because of its inconsistency with the building and Mall design and because it blocks visitors views through the building to the mall landscape. Security screening in the temporary facilities at the Liberty Bell Center and within Old City Hall would also continue to cause long-term moderate adverse impacts because of heightened visitor uncertainty, wait times in security lines, health and safety issues, and the impact on the historical scene. However, the availability of interpretive staff to educate visitors about the security process and about park significance would result in some long-term minor beneficial impacts. Cumulative impacts would be long-term minor to moderate and adverse.

Impacts of Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)

Providing a new permanent screening facility in the location of the temporary facility at the Liberty Bell Center and the existing screening equipment and process within Old City Hall prior to entering Independence Square would most likely encourage anticipated future visitation increases at the park. As noted in the analysis of alternative A, although increased visitation is anticipated, the annual percentage increase that might occur is unknown, but would not be nearly as substantial as the roughly 80% to 150% change in visitation that was experienced between 2003 and 2004 when the Liberty Bell Center and National Constitution Center were opened. However, these facilities would most likely continue to attract existing and new visitors, and the addition of a permanent, more appropriately designed building for security at the Center might contribute to this trend. Similar to alternative A, some visitors would continue to be deterred by the two screening facilities at the park and the time commitment involved; however, the potential loss of visitation would be negated by the additional visitation that would result from new facilities and opportunities at the park.

Security Zones and Fencing. Bicycle barricades that currently fence off the two secure areas within the park would be replaced by six- to seven-foot high, reversible Iron Palisade security fences that would be constructed around the perimeter of the northern half of Independence Square and around the Liberty Bell Center maintaining the two separate secure zones. The fence around Independence Square would stretch across the mid-point of Independence Square enclosing the northern portion of the square (see Figure 8). A short run of fence would supplement the existing brick and iron fence at the Liberty Bell Center. The impacts associated with the security fence would be similar to alternative A, ranging from long-term minor to moderate adverse depending upon individual visitor preferences related to the need to maintain the historic characteristics of the square and the value they place on freely moving throughout the park unimpaired by security structures.

The reversible Iron Palisade fence would be designed to maximize security while insuring visitors a view of Independence Hall. Although the fence would be less visually obtrusive and more appropriately designed than the existing bicycle barricades, it would still be visible through the historically open space of Independence Square resulting in long-term minor adverse impacts to visitor experience as a result of the visual intrusion of the fence.

The permanence of the fence in a park that is the birthplace of democracy and represents personal liberty would result in long-term moderate adverse impacts to some visitor's experience. The distance that has been mandated to protect Independence Hall and visitors from a potential bomb blast and that would result in the fence bisecting Independence Square further contributes to this adverse impact. Some visitors and groups believe that the threat does not warrant the solution the fence is intended to represent and that the fence could be located closer to Independence Hall, subsequently resulting in less of an impact on the openness of the square (IMBARC 2006).

FIGURE 8: CURRENT EXAMPLES OF FENCING



As discussed in alternative A, the continued provision of two separate, but established, security perimeters would allow visitors the ability to roam around the Liberty Bell Center and Independence Hall at their own pace and unrestricted through the interior of the two fenced, secured areas. However, these fences would also potentially interfere with special events and First Amendment demonstrations on Independence Square because of the way it bisects the northern half of the square resulting in long-term minor adverse impacts to visitor use.

Security Screening. Impacts related to security screening procedures at Old City Hall would be the same as described in alternative A. Long-term minor to moderate adverse impacts would result to visitor experience from visitors being unprepared for the security screenings, the increased amount of time that must be allotted for a visit to the park due to security procedures, and health and safety issues related to waiting outside in queuing lines. The addition of security screening equipment in the new screening facility at the Liberty Bell Center would result in beneficial impacts to visitors in comparison to alternative A, as explained in the “Liberty Bell Center” section that follows.

Liberty Bell Center – The permanent facility would be placed in the same location as the temporary facility directly adjacent to the west wall of the Liberty Bell Center. This building would be designed by the same architect or firm that designed the Liberty Bell Center and it would be designed to accommodate other visitor uses in the event security screening is no longer required in the future. Similar to alternative A, this facility might block the ability of visitors to see through the Liberty Bell Center to the mall landscape as intended. However, unlike alternative A, this new facility would be designed to be compatible with both the architecture of the Liberty Bell Center and the mall in accordance with the goals

of the GMP (NPS 1997). Thus, visitor use impacts related to this new building would be less severe than in the no action alternative, but would still be long-term and minor adverse.

The screening process within the new security building would be ADA accessible. Therefore, queuing times in security lines at the Center would be potentially cut in half and substantially less than existing wait times. In addition, the new facility would be connected to the Liberty Bell Center providing direct access without having to exit outside. Reduced wait times would also result in less exposure to the weather while waiting outside to be screened. These combined changes in the screening process would result in long-term moderate beneficial impacts to visitors at the Liberty Bell Center.

The entrance to the new screening facility at 6th and Market Streets would allow visitors to view the Presidents House site, which is directly north of the Liberty Bell Center. This site is where Washington and Adams resided and worked during their administrations. A commemoration to these and related events would be built on this site. Visitors in the screening line would be able to see and visit the Presidents House site resulting in additional long-term minor beneficial impacts to their interpretive experience in comparison to alternative A. Fewer visitors clustering in this location due to improved security times would also be beneficial.

During construction, the temporary prefabricated screening facility would be moved and temporarily reconstructed on the 5th Street side of the Liberty Bell Center resulting in short-term, moderate adverse impacts to visitors. This facility would be used to screen visitors to the Liberty Bell Center for approximately 15 months while the new permanent facility is being constructed. The location of this temporary facility on the east side would minimally impede vistas on the Mall. While most of the work would be external to the Liberty Bell building, some construction work would occur internal to the building to accommodate the connection between the two facilities disturbing some visitors. In addition, the relocation of the existing security location at the Center would be disconcerting to repeat visitors who are just becoming familiar with the location of the screening facility on the west side of the Liberty Bell Center. These cumulative disturbances and changes could deter some visitors from enjoying the Center in the short-term. However, these disturbances would be mitigated by increased signage and handouts for visitors.

Old City Hall – As described in alternative A, the presence of screening facilities in the vestibule and exhibit room and the addition of the white panels in the Supreme Court chamber would result in long-term minor to moderate adverse impacts to visitors during their tour of Old City Hall. Additionally, softer building elements such as plaster wall finishes, curtains and drapes, historic exhibit collections, and wooden trim would suffer from the change in building use and become more visible to visitors over time resulting in a further decline in visitor experience. Opportunities for interpretive staff to educate visitors about the park's significance and the security process while waiting in the queuing lines at Old City Hall would result in some long-term minor beneficial impacts to visitor experience similar to alternative A.

Cumulative Impacts. Impacts related to past, present, and future actions at Independence National Historical Park that could affect visitor use and experience are the same as described in alternative A. The moderate beneficial impacts that would result from implementation of these improved interpretive opportunities, landscape plans, and signage plans when combined with the impacts of alternative B – long-term minor to moderate adverse impacts related to the fencing and screening process in Old City Hall and the moderate beneficial impacts of the improved screening process at the Liberty Bell Center – would result in cumulative adverse impacts that would be long-term and minor. In comparison to alternative A, the cumulative impacts of alternative B would be less severe because of the improved fencing and new screening facility.

Conclusion. The impacts of the security fence would be similar to alternative A, ranging from long-term minor to moderate adverse depending upon visitor preferences related to the need to maintain the historic

characteristics of the square and the value they place on freely moving throughout the park unimpaired by security structures. The new building at the Liberty Bell Center would result in long-term minor adverse impacts because, although it would be compatible with existing architecture, it might continue to block the ability of visitors to see through the Liberty Bell Center to the mall landscape. Impacts related to security screening procedures at Old City Hall would be the same as described in alternative A, but would be long-term moderate beneficial for visitors screened at the Liberty Bell Center because of the improved wait times and fewer health and safety issues. During construction, relocation of the temporary screening facility would result in short-term, moderate adverse impacts to visitors. Cumulative impacts would long-term and minor adverse.

Impacts of Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence

Analysis. In alternative C, the visitor use and experience impacts that would result from the new permanent security screening building at the Liberty Bell Center, the short-term relocation of the temporary screening facility during construction of the permanent facility, and the new six- to seven-foot high, reversible Iron Palisade security fencing that would be constructed around the Liberty Bell Center and the northern half of Independence Square would be the same as those described in alternative B. These impacts range from minor to moderate adverse associated with the security fencing in Independence Square and the permanent security building next to the Liberty Bell Center to moderate beneficial as a result of the improved screening process in the new building.

Security Screening on Independence Square. Unlike alternative A or B, a new security screening facility for visitors would be constructed in the footprint of the Old Courthouse on Independence Square along 6th Street and south of Congress Hall. The building would occupy an area within the secure, fenced area on Independence Square that is currently open, but occupied by grass turf, trees, and an east-west path.

This new screening facility would allow all screening equipment to be removed from Old City Hall and allow these rooms to be returned to their original appearance. The white panels installed to physically separate visitors exiting from screening from visitors on tours of Old City Hall would be removed from the Supreme Court chamber, and any damage to the building resulting from its screening use would be repaired. All first floor rooms, including the entire Supreme Court chamber, would be available for viewing by visitors when they enter Old City Hall, once again allowing visitors to see the Supreme Court chamber exactly as it appeared in 1790. Therefore, impacts resulting from the removal of security screening in Old City Hall would be long-term moderate beneficial for visitors that value the history depicted within Old City Hall (IMBARC 2006). For those visitors that value the cultural landscape, the intrusion of both the security building and the security fence would potentially result in long-term moderate adverse impacts to their visitor experience. Therefore, these adverse visual impacts could be offset by the beneficial impact of an improved visitor experience within Old City Hall.

Similar to the new facility at the Liberty Bell Center, this new screening building would most likely result in shorter wait times for security lines and less exposure to the weather while waiting to be screened resulting in long-term minor beneficial impacts to visitor use and experience while at Independence Square. Opportunities for interpretive staff to educate visitors about the park's significance and the security process while waiting in the queuing lines at the new building would result in some additional long-term minor beneficial impacts to visitor experience similar to alternative A.

Assuming that construction time is similar to that of the new building at the Liberty Bell Center (15 months), short-term disturbances resulting from large equipment, construction noise, and the moving of dirt would result in short-term minor adverse impacts to visitors during construction.

Cumulative Impacts. Impacts related to past, present, and future actions at Independence National Historical Park that could affect visitor use and experience are the same as described in alternative A. The moderate beneficial impacts that would result from implementation of these improved interpretative opportunities, landscape plans, and signage plans when combined with the impacts of alternative C – minor to moderate adverse due to the site-wide fencing and permanent security facilities next to the Liberty Bell Center and on Independence Square, and moderate beneficial as a result of the improved screening process in both new screening facilities – would result in cumulative impacts that would be long-term and minor beneficial. In comparison to alternative A, the cumulative impacts of alternative C would be beneficial because of the improved visitor experience associated with the new screening facilities.

Conclusion. Except for impacts associated with Old City Hall and the new security screening facility on Independence Square, visitor use and experience impacts would be the same as alternative B. The removal of security in Old City Hall would result in long-term moderate beneficial impacts for visitors that value the history represented by the Supreme Court chamber. However, for visitors that value the cultural landscape, the intrusion of both the security building and the security fence could result in long-term moderate adverse impacts. Therefore, the adverse visual impacts could offset the beneficial impacts of an improved visitor experience within Old City Hall. Similar to the Liberty Bell Center, short-term disturbances resulting from large equipment, construction noise, and the moving of dirt would result in minor adverse impacts to visitors during construction.

HEALTH AND SAFETY

METHODOLOGY AND ASSUMPTIONS

Impacts to visitor and staff health and safety were determined qualitatively based on the features of the existing and proposed security measures surrounding Independence National Historical Park.

STUDY AREA

The geographic study area for health and safety are the areas within and immediately adjacent to the Independence National Historical Park.

IMPACT THRESHOLDS

The impact intensities for health and safety were defined as follows:

Negligible — The impact to health and safety would not be measurable or perceptible.

Minor — The impact would be detectable but would not have an appreciable effect on overall public health and safety. Individuals could be affected in a localized area. If mitigation were needed, it would be relatively simple and would likely be successful.

Moderate — The impacts would be readily apparent and result in substantial, noticeable effects to public health and safety on a local scale. Mitigation measures would probably be necessary and would likely be successful.

Major — The impacts would be readily apparent and result in substantial, noticeable effects to public health and safety on a regional scale. Extensive mitigation measures would be needed, and success would not be guaranteed.

Duration – Short-term impacts would be immediate, occurring during implementation of the alternative. Long-term impacts would persist after implementation of the alternative.

Impacts of Alternative A – No Action Alternative

Analysis. Under the no action alternative, the existing security measures, which consist of visitor screening facilities at the entrance of the Liberty Bell Center and Independence Square, and the temporary fencing surrounding those facilities, would remain in place.

Under this alternative, the park's two security screening facilities would effectively detect the presence of prohibited items that could cause harm to park visitors and resources, and greatly decrease the threat of a person carrying a gun, bomb, or any other items prohibited by the park. This level of protection would have long-term moderate beneficial impacts to health and safety to park visitors and staff within these secure facilities.

The queues to get into the screening areas at both the Liberty Bell Center and Old City Hall are entirely exposed to the elements with very little shaded areas. During the summer months Philadelphia's average high temperature is 91 degrees Fahrenheit with high humidity. With these high temperatures, visitors standing in long queues to enter these facilities would be at increased risk of heat-related illnesses, especially the very young and very old. Heat-related illnesses can range from heat cramps, heat exhaustion, and heat stroke (American Red Cross 2005). Although no such illnesses have been documented (J. Mueller, Chief Historian, NPS, pers. comm., LBG, June 28, 2006), the potential for park visitors to suffer heat-related illnesses while waiting in long queues exposed to direct sunlight would have long-term minor adverse impacts on health and safety.

An interpretive ranger is present at the Old City Hall screening facility during the eight hours the facility is open to organize queuing. During peak times, queues to get into the visitor screening facility at the Liberty Bell Center can grow large and become disorganized, encouraging some pedestrians into the street, putting these pedestrians in direct conflict with vehicles on 5th and 6th Streets. In addition, along 6th Street, there is a cobblestone sidewalk margin with uneven surfaces that can pose a tripping hazard to those pedestrians forced to walk around the queues. When these queues start becoming disorganized, park staff is mobilized in an effort to keep the queues organized and to allow sufficient room for pedestrians to travel. An interpretive ranger is available approximately 50 to 75 percent of the time to manage and organize the queuing process at the Liberty Bell Center screening facility (J. Mueller, Chief Historian, NPS, pers. comm., LBG, June 28, 2006). As a result of these efforts, there would be long-term minor adverse impacts on health and safety.

The use of the temporary fences as security measures were erected and anticipated to be a short-term first response to provide security to the park and to protect park visitors and staff from the threat of terrorist attacks on the Liberty Bell Center or Independence Hall. While the overall safety within the secured areas of the park has increased with the installation of the temporary fences, they do not provide adequate security necessary to fully protect the park visitors and staff within the Liberty Bell Center and Independence Square. The continued use of temporary fencing could result in long-term moderate adverse impacts to health and safety to park visitors and staff.

Cumulative Impacts. Proposed new construction within Independence National Historical Park, such as the restoration of Independence Hall Tower, the rehabilitation of Independence Square and Independence Mall, and the proposed construction of condominiums at 5th and Walnut streets could result in short-term minor adverse impacts human health and safety. These impacts would come as a result of construction operations occurring in close proximity to people visiting Independence National Historical Park and the increased number of large construction vehicles on local roads hauling materials to and from the sites. These impacts in combination with long-term moderate beneficial impacts, long-term minor and moderate adverse impacts of the no action alternative would result in short-term minor adverse cumulative impacts to health and safety.

Conclusion. Implementation of the no action alternative would result in long-term moderate beneficial impacts to health and safety due to the continued use of visitor screening at the Liberty Bell Center and

Old City Hall. There could also be long-term minor adverse impacts as a result of the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. There could also be long-term moderate adverse impacts as a result of the security inadequacies inherent in the temporary security fencing. Cumulative impacts under no action alternative would be short-term minor adverse.

Impacts of Alternative B – Permanent Screening Facilities (LBC and OCH) and Security Fence (NPS Preferred)

Analysis. Under alternative B, a permanent visitor screening facility would be built at the location of the existing temporary structure at the Liberty Bell Center. Screening would temporarily be shifted to the east side of the building. The existing visitor screening facility within the lobby of Old City Hall would remain. In addition, all temporary fencing would be replaced with six- to seven-foot high, reversible Iron Palisade security fence.

Under this alternative, prior to the construction of the new permanent screening facility at the Liberty Bell Center, the current temporary screening facility would be moved to the east side of the building. It is anticipated that the moving of this structure would be done at night when the facility is closed in order to ensure no disruption in visitor access. The new screening facility at the Liberty Bell Center and at Old City Hall would provide sufficient protection and, thus, this level of protection would have long-term moderate beneficial impacts to health and safety to park visitors and staff within these secure facilities.

Under alternative B, the queues to get into the screening areas at both the Liberty Bell Center and Old City Hall would continue to be entirely exposed to the elements with very few shaded areas. During especially hot summer days, visitors standing in long queues to enter these facilities would be at increased risk of suffering a heat related illnesses. At the Liberty Bell Center, these impacts would be lessened by the fact that there would be less of a wait time in the queues with the increased number of screening stations and the park's ability to move people through the screening process faster. At Old City Hall, there would be no changes in wait time. The potential for heat-related illnesses would still occur and would have long-term minor adverse impacts on health and safety.

During peak times, queues to get into the security screening facilities at the Liberty Bell Center and Old City Hall can grow large and become disorganized, forcing some pedestrian flow into the street, putting pedestrians in direct conflict with vehicles on 5th and 6th Streets. In addition, along 6th Street, there is a cobblestone sidewalk margin where the surfaces are uneven and can pose a tripping hazard. When these queues start becoming disorganized, park staff is mobilized in an effort to keep the queues organized and to allow sufficient room for pedestrians to travel. Under alternative B, with the increased number of screening stations at the Liberty Bell Center, the park would be able to move people through the screening process faster the queue would less likely become overly crowded and disorganized. At Old City Hall, there would be no changes in wait time or the size of the queues. Despite shorter queues at the Liberty Bell Center, there would continue to be long-term minor adverse impacts on health and safety

Replacing all temporary fencing with reversible Iron Palisade security fences would be an effective first line of defense in protecting park visitors and staff from the threat of terrorist attacks on the Liberty Bell Center or Independence Hall. Overall, with the added security the new fence provides, there would be moderate long-term beneficial impacts to human health and safety within these secure areas.

Cumulative Impacts. Proposed new construction within Independence National Historical Park, such as the restoration of Independence Hall Tower, the rehabilitation of Independence Square and Independence Mall, and the proposed construction of condominiums at 5th and Walnut streets could result in short-term minor adverse impacts human health and safety. These impacts would come as a result of construction operations occurring in close proximity to people visiting Independence National Historical Park and the

increased number of large construction vehicles on local roads hauling materials to and from the sites. These impacts in combination with long-term moderate beneficial impacts that come with the visitor screening facilities and the installation of reversible Iron Palisade fencing, along with the long-term minor and potential moderate adverse impacts of alternative B would result in short-term minor adverse cumulative impacts to health and safety.

Conclusion. Implementation of alternative B would result in long-term moderate beneficial impacts to health and safety due to the continued use of security screening at the Liberty Bell Center and Old City Hall. There could also be long-term minor adverse impacts as a result of the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. There would be moderate long-term beneficial impacts with the added security the new fence provides. Cumulative impacts under alternative B would be short-term minor adverse.

Impacts of Alternative C – Permanent Screening Facilities (LBC and Independence Square) and Security Fence

Analysis. Under alternative C, a permanent visitor screening facility would be built at the location of the existing temporary structure at the Liberty Bell Center. Screening would temporarily be shifted to the north side of the building. The existing temporary screening facility would be removed from Old City Hall and an additional permanent visitor screening facility would be constructed on the grounds of Independence Square south of Congress Hall. In addition, all temporary fencing would be replaced with six- to seven-foot high, reversible Iron Palisade security fence in the same manner as alternative B.

Under this alternative, the installation of the new visitor screening facility at the Liberty Bell Center would be done in the same manner as listed under alternative B. The new screening facility would be placed on the west side of the Liberty Bell Center and would have multiple visitor screening station. However, under alternative C, a new permanent visitor screening facility to enter Independence Square would be constructed south of Congress Hall, along 6th Street, South of Walnut Street. The dimensions of this new facility would be similar to the new facility at the Liberty Bell Center, and would also have multiple visitor screening stations. After the new visitor screening is finished, the visitor screening facilities at Old City Hall would be removed. There would be no time between the opening of the new facility south of Congress Hall and the closing of the visitor screening facility at Old City Hall when visitor screening would be interrupted. Under this alternative, there would be no disruption in the park's ability to perform security screening, and they would be able to continue to effectively detect the presence of prohibited items that could cause harm to park visitors and resources. This level of protection would have long-term moderate beneficial impacts to health and safety to park visitors and staff within these secure facilities.

Under alternative C, the queues to get into the screening areas at both the Liberty Bell Center and the new visitor screening facility south of Congress Hall would continue to be entirely exposed to the elements. During especially hot summer days, visitors standing in long queues to enter these facilities would be at increased risk of suffering some sort of heat-related illnesses. At the Liberty Bell Center, these impacts would be lessened by the fact that there would be less of a wait time with the increased number of screening stations and the park's ability to move people through the screening process faster. At the new visitor screening facility located on 6th Street, south of Congress Hall, visitors would find some relief from the summer heat from the shading provided by the larger trees found within Independence Square. In addition, as with the new facilities at the Liberty Bell Center, there would be less wait time with the increased number of visitor screening stations, which would lessen the wait time and exposure. The potential for heat-related illnesses would still occur and could have long-term minor adverse impacts on health and safety.

During peak times, queues to get into the security screening facilities at the Liberty Bell Center and the new facility south of Congress Hall could grow large and become disorganized, forcing some pedestrian flow into the street, putting pedestrians in direct conflict with vehicles on 6th Street. In addition, along 6th Street, there is a cobblestone sidewalk margin where the surfaces are uneven and can pose a tripping hazard. When these queues start becoming disorganized, park staff is mobilized in an effort to keep the queues organized and to allow sufficient room for pedestrians to travel. Under alternative C, with the increased number of screening stations, the park would be able to move people through the screening process faster the queue would less likely become overly crowded and disorganized. Despite shorter queues at both facilities, there would continue to be long-term minor adverse impacts on health and safety

Replacing all temporary fencing with reversible Iron Palisade security fences would be done in the same manner as alternative B. Overall, with the added security the new fence provides, there would be moderate long-term beneficial impacts to human health and safety within these secure areas.

Cumulative Impacts. Proposed new construction within Independence National Historical Park, such as the restoration of Independence Hall Tower, the rehabilitation of Independence Square and Independence Mall, and the proposed construction of condominiums at 5th Walnut could result in short-term minor adverse impacts human health and safety. These impacts would come as a result of construction operations occurring in close proximity to people visiting Independence National Historical Park and the increased number of large construction vehicles on local roads hauling materials to and from the sites. These impacts in combination with long-term moderate beneficial impacts that come with the visitor screening facilities and the installation of reversible Iron Palisade fencing, along with the long-term minor and potential moderate adverse impacts of alternative C would result in short-term minor adverse cumulative impacts to health and safety.

Conclusion. Implementation of alternative C would result in long-term moderate beneficial impacts to health and safety due to the continued use of security screening at the Liberty Bell Center and the proposed new visitor screening facility located south of Congress Hall. Long-term minor adverse impacts could result from the potential for those people standing in the visitor screening queues to suffer from heat-related illnesses during the summer months. Long-term minor adverse impacts could also occur from potential conflicts between pedestrians and automobiles and potential tripping hazards when these queues grow too large and disorganized. Moderate long-term beneficial impacts would occur with the added security the new fence provides. Cumulative impacts under alternative C would be short-term minor adverse.

COORDINATION AND CONSULTATION

Coordination and consultation efforts for this planning process focused on the means or processes to be used to include the public, the major interest groups, and local public entities. Park staff place a high priority on meeting the intent of public involvement in the EA process and giving the public an opportunity to comment on proposed alternatives. As part of the NPS EA process, issues associated with the action were identified during the internal scoping meeting with NPS staff.

All consultations with the State Historic Preservation Officer advisory council, as mandated in Section 106 of the National Historic Preservation Act of 1966, are occurring apart from the development of this EA. However, the park has maintained an ongoing dialogue with the State Historic Preservation Officer regarding security actions. In a March 31, 2004 letter, the park informed the State Historic Preservation Officer of the single screening process that was going to be implemented. This process would involve a single entry and screening point for visitors to both the Liberty Bell and Independence Hall. In a July 12, 2004 correspondence the State Historic Preservation Office requested that the park forward alternatives under consideration for increasing security at Independence National Historical Park for their further review. In the park's bi-annual meeting with the State Historic Preservation Office, the park presented the current plans and concepts to the office for advice and feedback. Consultation with the State Historic Preservation Office is being carried out concurrently with the EA process.

The park has also requested information regarding the presence in the project area of any federally listed threatened or endangered species from the U.S. Fish and Wildlife Service.

The park has distributed public information brochures, press releases, and held several meetings with concerned citizens. Two public informational meetings were held on March 23, 2004 and February 16, 2006 at the Independence Visitor Center. Notification of these meetings occurred through press releases and on the park's website. The meetings were held to provide information on the park's proposed security upgrades, show the initial designs, and solicit public comment. The theme of the meetings was balancing access and security at Independence Hall and the Liberty Bell. At the most recent meeting (February 2006), 28 people signed-in representing various interest groups including: American Philosophical Society, Independence Mall Business and Residents Coalition, Bohlin Cywinski Jackson, Olin Partnership, International Visitors Council, Civil War and Underground Railroad Museum, U.S. Marshals Service, Sons of the American Revolution, Deshler-Morris House Committee, U.S. Mint Police, Wackenhut Security, Center City District, Once Upon a Nation, Hillier Architecture, Christ Church, Independence Hall Association, and Philadelphia Managing Director's Office.

Coordination with local and regional organization and stakeholders is continuing during this EA process to help identify issues and/or concerns related to social and cultural resources associated with the site.

Coordination has occurred with some of Independence National Historical Park's traditionally-associated groups, including the American Philosophical Society; National Society of Colonial Dames of America; the Southeastern Cherokee Confederacy of Pennsylvania; Descendants of the Signers of the Declaration of Independence; Friendly Sons of St. Patrick; Independence Hall Association; National Freedom Day Association; Sons of Union Veterans of the Civil War; Pennsylvania Society of Sons of the American Revolution; National Society of the Daughters of the American Revolution; Society of Free Quakers; and Patriotic Order of Sons of America. Representatives of these organizations have been invited to all of the park's public informational meetings, and have been asked to identify their concerns related to the new security measures proposed for Independence National Historical Monument. These groups will also receive a copy of the EA for review and comment.

There are many traditional practices that take place at Independence National Historic Park. These practices cover a wide range of groups, and do not have a designated representative organization. The following practices and the concerns of those involved in these practices will be considered during public

coordination and consultation: public dissent, parades, public speeches and ceremonies, wreath laying, enlistment and reenlistment ceremonies at the Liberty Bell, and naturalization ceremonies on the square or in Congress Hall.

This EA is available for public and agency review for a 30-day comment period. The EA is also available for review on the NPS Park, Environment, and Public Comment (PEPC) website at <http://parkplanning.nps.gov/inde>. Public comments can be submitted through this site during the 30-day comment period or directly to the Superintendent at 143 South Third Street, Philadelphia, PA 19106. The NPS will consider the comments prior to drafting the final decision document, either a Finding of No Significant Impact or a Notice of Intent to prepare an environmental impact statement, which will be sent to the Northeast Regional Director for approval and signature.

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GLOSSARY OF TERMS AND ACRONYMS

ADA	Americans with Disabilities Act
AIA	American Institute of Architects
AIRFA	American Indian Religious Freedom Act
APE	Area of Potential Effects
ARPA	Archeological Resources Protection Act
CEQ	Council on Environmental Quality
CLR	Cultural Landscape Report
CFR	Code of Federal Regulations
DO	Director's Order
EA	environmental assessment
EIS	environmental impact statement
FONSI	Finding of No Significant Impact
GMP	General Management Plan
HSPD-7	Homeland Security Presidential Directive – 7
INHP	Independence National Historical Park
LBC	Liberty Bell Center
LRIP	Long-Range Interpretive Plan
MOA	Memorandum of Agreement
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NO _x	nitrogen oxide
NPS	National Park Service
NRHP	National Register of Historic Places
OCH	Old City Hall
PEPC	Park, Environment, and Public Comment website
Rule	40 CFR Part 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans
tpy	tons per year
USC	United States Code
VOCs	volatile organic compounds

Affected Environment — The existing environment to be affected by a proposed action and alternatives.

Bicycle Barricade — Bicycle racks placed end-to-end to form a temporary fence.

Contributing Resource — A building, site, structure, or object that adds to the historic significance of a property or district.

Council on Environmental Quality (CEQ) — Established by Congress within the Executive Office of the President with passage of the National Environmental Policy Act of 1969. CEQ coordinates federal environmental efforts and works closely with agencies and other White House offices in the development of environmental policies and initiatives.

Cultural Resources — Prehistoric and historic districts, sites, buildings, objects, or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or any other reason.

Cumulative Impacts — Under NEPA regulations, the incremental environmental impact or effect of an action together with the effects of past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions (40 CFR 1508.7).

Emergency Services — Public services that respond to emergency situations including police, fire, rescue, and EMS.

Enabling Legislation — National Park Service legislation setting forth the legal parameters by which each park may operate.

Endangered Species — “...any species (including subspecies or qualifying distinct population segment) that is in danger of extinction throughout all or a significant portion of its range (ESA Section 3(6)).” The lead federal agency, U.S. Fish and Wildlife Service, for the listing of a species as endangered is responsible for reviewing the status of the species on a five-year basis.

Endangered Species Act (ESA) (16 USC 1531 et seq.) — An Act to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved and to provide a program for the conservation of such endangered species and threatened species.

Environmental Assessment (EA) — An environmental analysis prepared pursuant to the National Environmental Policy Act to determine whether a federal action would significantly affect the environment and thus require a more detailed environmental impact statement (EIS).

Executive Order — Official proclamation issued by the President that may set forth policy or direction or establish specific duties in connection with the execution of federal laws and programs.

Finding of No Significant Impact (FONSI) — A document prepared by a federal agency showing why a proposed action would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement. A FONSI is based on the results of an Environmental Assessment.

National Environmental Policy Act (NEPA) — The Act as amended articulates the federal law that mandates protecting the quality of the human environment. It requires federal agencies to systematically assess the environmental impacts of their proposed activities, programs, and projects including the “no action” alternative of not pursuing the proposed action. NEPA requires agencies to consider alternative ways of accomplishing their missions in ways which are less damaging to the environment.

National Historic Preservation Act of 1966 (16 USC 470 et seq.) — An Act to establish a program for the preservation of historic properties throughout the nation, and for other purposes, approved October 15, 1966 [Public Law 89-665; 80 STAT.915; 16 USC 470 as amended by Public Law 91-243, Public Law 93-54, Public Law 94-422, Public Law 94-458, Public Law 96-199, Public Law 96-244, Public Law 96-515, Public Law 98-483, Public Law 99-514, Public Law 100-127, and Public Law 102-575].

National Register of Historic Places (National Register) — A register of districts, sites, buildings, structures, and objects important in American history, architecture, archaeology, and culture, maintained by the Secretary of the Interior under authority of Section 2(b) of the Historic Sites Act of 1935 and Section 101(a)(1) of the National Historic Preservation Act of 1966, as amended.

Organic Act — Enacted in 1916, this Act authorizes the establishment of, and commits the National Park Service to making informed decisions that perpetuate the conservation and protection of park resources unimpaired for the benefit and enjoyment of future generations.

Scoping — Scoping, as part of NEPA, requires examining a proposed action and its possible effects; establishing the depth of environmental analysis needed; determining analysis procedures, data needed, and task assignments. The public is encouraged to participate and submit comments on proposed projects during the scoping period.

