

ENVIRONMENTAL CONSEQUENCES

This section describes the environmental context of the project area and the environmental consequences of the alternatives. Long-term impacts of the proposed rehabilitation project are presented in Section 3.2; mitigation measures for long-term impacts are discussed in Section 3.3. Temporary construction impacts and short-term mitigation measures are provided in Section 3.4.

3.1 NO-BUILD ALTERNATIVE

The No-Build Alternative would not have any direct or indirect land use, farmland, social, relocation, or economic impacts; neither would it result in any joint development or changes in considerations relating to pedestrians and bicyclists; there would be no air quality, noise, or water quality impacts; no permits would be required; no impacts would occur to wetlands; there would be no waterbody modification and no impacts to wildlife. In addition, this alternative would not impact floodplains, wild and scenic rivers, coastal barriers or zones, threatened or endangered species, or hazardous waste sites; there would be no visual, energy, or construction impacts. Regarding environmental justice, no impacts to minority or low-income populations would be anticipated from the No-Build Alternative.

The No-Build Alternative would not affect the three (3) cultural resources listed in the National Register of Historic Places (NRHP) in the project area (Union Station, Columbus Plaza, City Post Office).

3.2 PROPOSED ACTION

Because the entire Union Station project area and vicinity are relatively flat, completely developed/landscaped, and/or surrounded by paved surfaces, there will be no impacts to any of several environmental resources, natural or man-made. Implementation of the Proposed Action would not have any direct or indirect farmland, relocation, or economic impacts; there would be no water quality impacts; no permits would be required; no impacts would occur to wetlands; there would be no waterbody modification and no impacts to wildlife. In addition, the Proposed Action would not impact floodplains, wild and scenic rivers, coastal barriers, coastal zones, threatened or endangered species, or hazardous waste sites; there would be no energy impacts.

Compliance with Executive Order 13112 requires Federal agencies and projects that receive Federal funding to reduce or eliminate fragmentation and disturbance of habitats within undeveloped areas to decrease vulnerability to invasive species colonization. An "invasive species" is a plant, animal, or other organism that is either non-native (or alien) to the ecosystem under consideration and/or one whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Because this is a Federal action, methods and strategies to reduce or eliminate the establishment and proliferation of invasive species will be considered; these methods include appropriate ornamental plantings to ensure that the nursery stock and plant material is not an aggressive colonizer, or a plant that spreads rapidly in a cultural setting. Because the project area and the surrounding areas are completely developed, manicured, and/or landscaped, the project will neither fragment, disturb, nor increase the

vulnerability to invasive species colonization of any undeveloped terrestrial or aquatic habitats. In addition, ornamentals and other landscape plants selected for use will be checked against lists of known invasive species for Maryland, Virginia, and the District of Columbia to ensure that no additional harmful plant materials will be introduced by the proposed action.

The only potential impacts are related to traffic and transportation, land use and socioeconomics, air quality, noise and vibration, cultural resources, parklands and Section 4(f)/Section 6(f) resources, and visual and aesthetic elements. These resource areas are more specifically discussed below.

3.2.1 Traffic and Transportation

The proposed rehabilitation to Columbus Plaza will not cause a negative impact to the traffic and transportation of the area. The proposed undertaking will be a positive change to the existing operations, especially with improving both vehicular and pedestrian accessibility and circulation.

Specifically, emergency vehicle access, and bicycle, charter/tour bus and Metrobus access and circulation will be improved with (1) the reconfiguration on the east and west ends of the station, (2) the widening of Massachusetts Avenue, and (3) the elimination of the interior semi-circular access road and parking in Columbus Plaza. Connection from the Metropolitan Branch Bike/Pedestrian trail to the new Bike Station west of Union Station (separate project) and access across Massachusetts Avenue to the Mall further south provides a defined link for cyclists. With the removal of the interior circulation roadway and extension of existing walkways, pedestrian access points will be increased and improved. In addition, ADA accessibility will be improved with the construction of wheelchair/bicycle ramps (depressed curbs) at all pedestrian crosswalks.

3.2.2 Land Use and Socioeconomics

There would be minor changes in land use from implementation of the Proposed Action. Currently, USRC has jurisdictional authority over the existing property immediately to the south of the Union Station structure proper. DDOT has jurisdictional authority over Massachusetts Avenue, 1st Street, and Columbus Court in the study area. NPS has jurisdictional authority over the land in the study area between USRC and DDOT including Columbus Plaza and the interior circulation roadway known as Columbus Circle. USRC has jurisdiction over the roadway immediately south of Union Station, which includes the historic rostral columns adjacent to the roadway. AOC has jurisdictional authority over the land in the study area south of the roadways (**Figure 13**).

The land use changes would be limited to jurisdictional land transfers between DDOT, NPS, USRC, and AOC. As summarized in **Table 2** and depicted on **Figure 14**, the net effects of these jurisdictional changes are gains of 0.584 and 0.353 acres by DDOT and AOC respectively, and losses of 0.92 and 0.017 acres by NPS and USRC, respectively.

The estimated acreage numbers represent jurisdictional changes based on the current design plans; acreages will be finalized at the completion of construction. Any such land transfers will be reviewed and approved by appropriate federal agencies (DDOT, NPS, USRC, and AOC).

Table 2. PROPOSED CHANGES OF JURISDICTION

ACREAGE FROM-	ACREAGE TO-				
	DDOT	NPS	USRC	AOC	TOTAL LOST
DDOT	---	0.016	---	0.190	0.206
NPS	0.773	---	---	0.163	0.936
USRC	0.017	---	---	---	0.017
AOC	---	---	---	---	0.0
Total Gained	0.79	0.016	---	0.353	
NET DIFFERENCE	0.584	-0.92	-0.017	0.353	

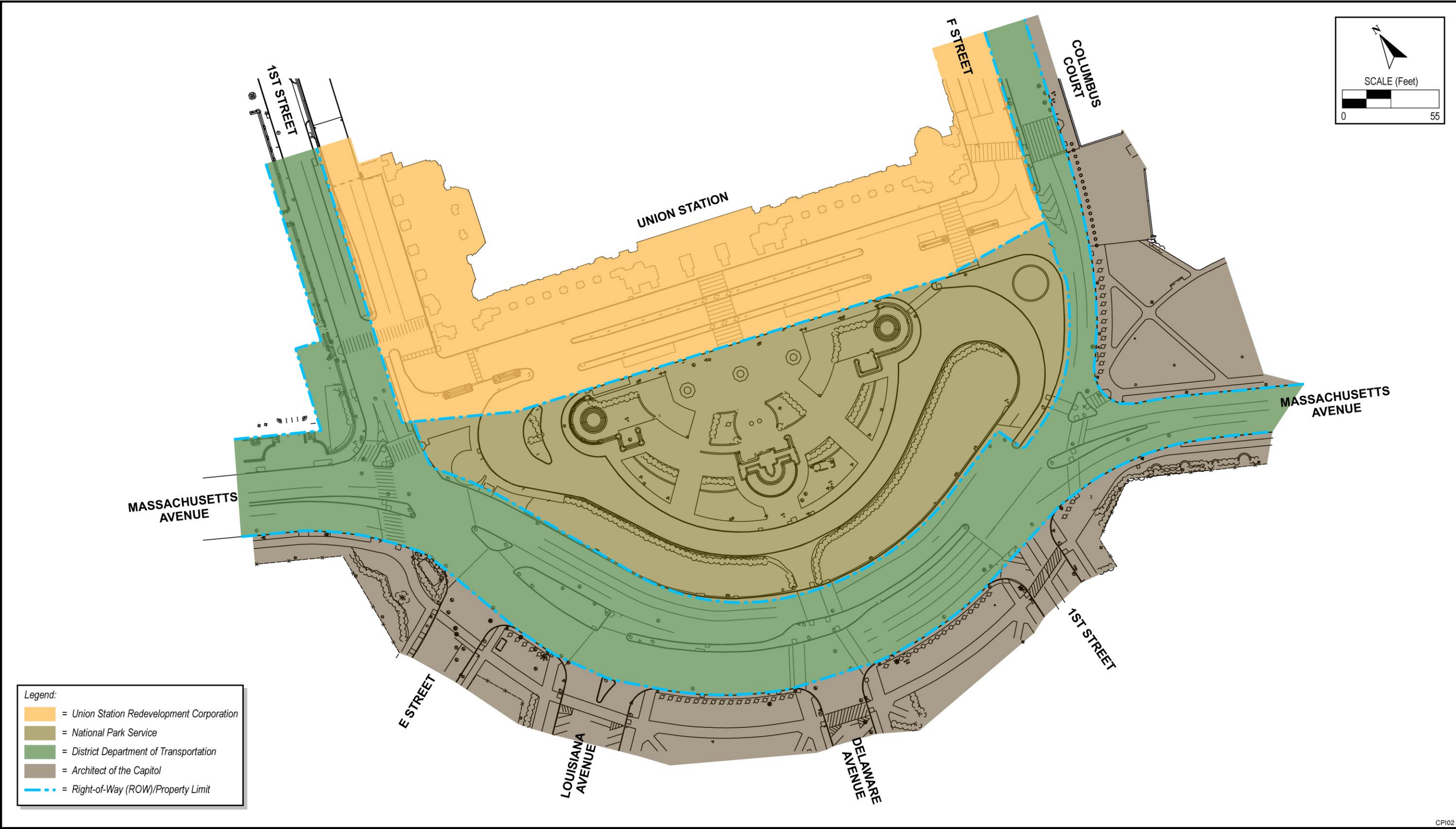


Figure 13. EXISTING PROPERTY AND RIGHTS-OF-WAY, COLUMBUS CIRCLE/COLUMBUS PLAZA

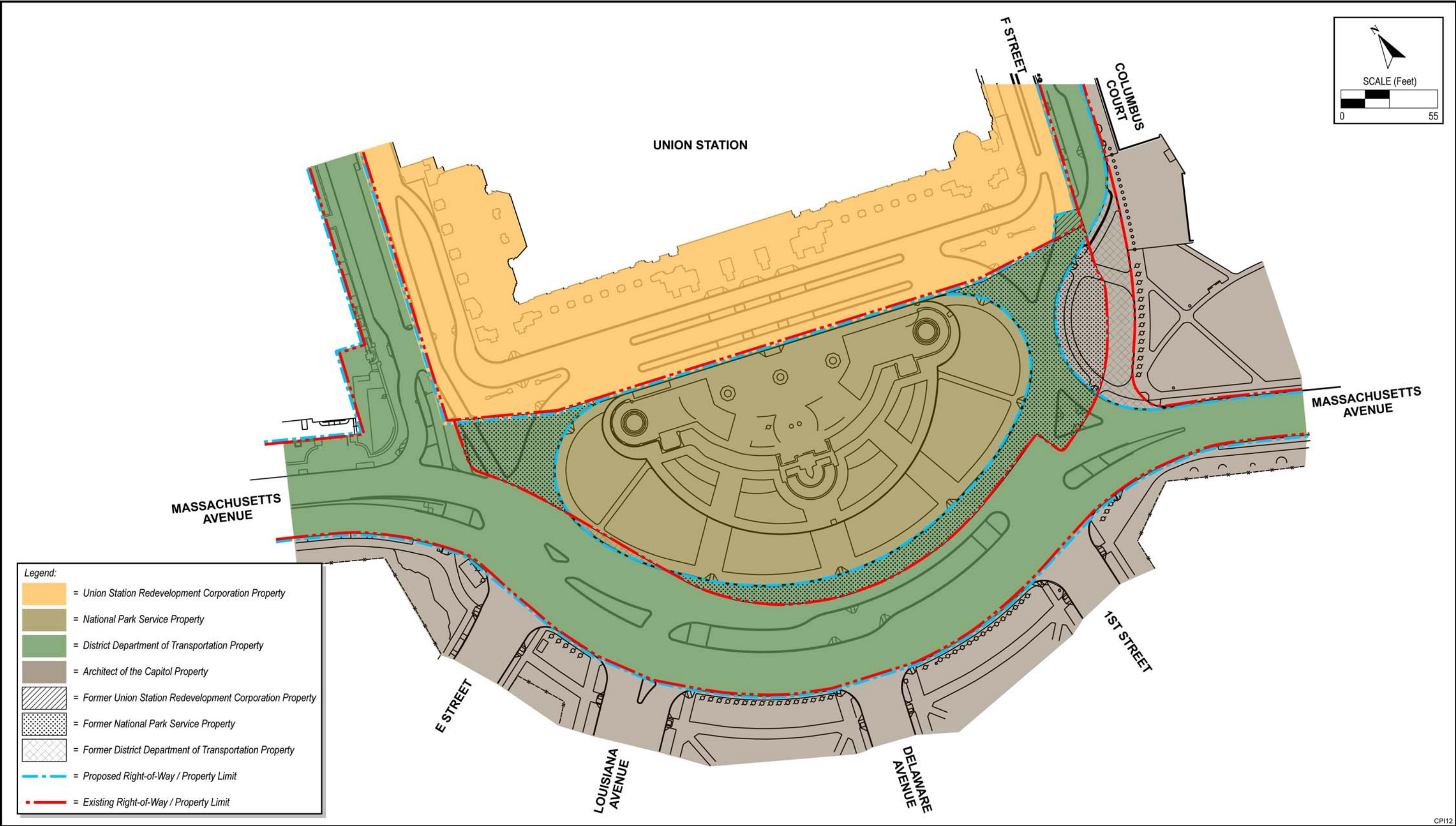


Figure 14. PROPOSED CHANGES OF JURISDICTION AND RIGHTS-OF-WAY, COLUMBUS CIRCLE/COLUMBUS PLAZA

The Knights of Columbus hold an annual Columbus Day commemorative wreath-laying ceremony at the Columbus Memorial Fountain on Columbus Plaza, which is specifically authorized under 36 CFR 7.96(g)(4)(E) (U.S. CFR 2005). The NPS will consult with this group regarding potential impacts of this proposed project on their event.

No changes to existing or proposed zoning, population or population forecasts, racial or age characteristics, or income or poverty status would occur as a result of implementation of the Proposed Action. There are no plans in the study area that would conflict with the proposed rehabilitation to Columbus Circle/Columbus Plaza.

There would be no disruption to any established community or its planned development and no displacement of families, businesses, farms, or nonprofit organizations. Implementation of the Proposed Action would have no adverse effect on emergency services, such as fire, police, or rescue operations, except for temporary travel delays associated with construction activities. It is expected that emergency services would be enhanced as a result of completion of the project.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, directs Federal agencies to "promote nondiscrimination in Federal programs substantially affecting human health and the environment, and provide minority and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment." The Order directs Federal agencies to ensure that existing plans, programs, and activities:

- do not discriminate on the basis of race, color, or national origin;
- identify and address disproportionately high and adverse human health or environmental effects of their actions on minority and low-income communities; and
- provide opportunities for community input in the NEPA process, including input on potential effects and mitigation measures.

No minority or low-income populations have been identified within the project area. Therefore, there would be no disproportionately high and adverse human health or environmental effects on minority and low-income populations as a result of implementation of the Proposed Action.

3.2.3 Air Quality

Air quality is a major concern in the District and adherence to Clean Air Act Amendments (CAAA) is required under D.C. Department of Health regulations. A preliminary review performed for this study indicates the project would not create any air quality impacts, would be well below National Ambient Air Quality Standards (NAAQS), and would conform to the requirements of the CAAA.

Transportation conformity is required for federally supported transportation projects in areas that have been designated by the U.S. Environmental Protection Agency (EPA) as not meeting one of the NAAQS. These areas are called *nonattainment* areas if they currently do not meet air quality standards, or *maintenance* areas if they have previously violated air quality standards but currently meet them and have an approved Clean Air Act section 175A maintenance plan. Union Station is located in the District of Columbia Air Quality Control Region, which is designated as:

- A maintenance area for CO;
- A severe nonattainment area for Ozone;
- A nonattainment area for fine particulate matter (PM_{2.5}); and
- An attainment area for all other NAAQS pollutants, including local inhalable particulate matter (PM₁₀).

Although this project is located in an area designated "nonattainment" for ozone and because it is not a regionally significant air quality project, it is not expected to be a major source of air pollution and is not expected to interfere with attainment of the NAAQS. Therefore, a formal technical air analysis is not deemed necessary and was not conducted.

On January 5, 2005, the EPA designated the Washington, DC-MD-VA area as nonattainment for fine particulate matter, called PM_{2.5}. This designation became effective on April 5, 2005, 90 days after EPA's published action in the Federal Register. Transportation conformity for the PM_{2.5} standards became effective April 5, 2006, following the one-year grace period provided by the CAA. Effective this date, metropolitan PM_{2.5} nonattainment areas must have in place a transportation plan and Transportation Improvement Program (TIP) that conforms, and federally supported projects must also be shown to conform. For PM_{2.5}, project-level conformity also requires an assessment of localized emission impacts for certain projects. This localized assessment is called a *hot-spot analysis*.

The proposed rehabilitation at Columbus Plaza is within the Washington, DC-MD-VA PM_{2.5} nonattainment area; therefore, the project is required to meet Transportation Conformity requirements found in 40 CFR Part 93, as amended. EPA amended the Transportation Conformity Rule on March 10, 2006, requiring a hot-spot analysis as part of the project-level conformity in PM_{2.5} nonattainment areas for certain projects. EPA posted the final rule on its website on March 1, 2006 and the final rule was published in the Federal Register on March 10, 2006. On March 29, 2006, EPA and the Federal Highway Administration issued joint guidance for conducting qualitative hot-spot analyses to meet the requirements established in the March 10 final Transportation Conformity Rule (71 FR 12468).

Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas (EPA 2006) is used to complete qualitative PM_{2.5} hot-spot analyses only for "projects of air quality concern" as defined in the final rule by 40 CFR 93.123(b)(1). These projects consist of highway and transit projects that involve potential increase in localized emissions or significant levels of diesel traffic, or any other project that is identified by the PM_{2.5} State Implementation Plan as a localized air quality concern. The proposed action at Columbus Plaza is an example of a project that is not an air quality concern under subsections (i) and (ii) of the final rule because it is:

- A safety improvement and landscaping highway project that primarily services gasoline vehicle traffic (i.e., does not involve a significant number or increase in the number of diesel vehicles), including such projects involving congested intersections operating at Level-of-Service D, E, or F. The proposed action includes exempt activities such as safety enhancements, additional medians, channelization changes, and landscaping modifications;
- An intersection-channelization project that involves either turn lanes or slots, or lanes or movements that are physically separated; therefore, this project improves operations by smoothing traffic flow and vehicle speeds by improving weave-and-merge operations, and would not be expected to create or worsen PM_{2.5} or PM₁₀ violations; and
- A traffic circle/roundabout project and intersection-signalization project at individual intersections that is designed to improve traffic flow and vehicle speeds, and does not involve any increase in idling; therefore, the rehabilitation to Columbus Plaza would be expected to have a neutral or positive influence on PM_{2.5} or PM₁₀ emissions.

In addition, the proposed action at Columbus Plaza is an example of a project that is not an air quality concern under subsections (iii) and (iv) of the final rule because:

- It would improve an existing bus terminal that is primarily serviced by non-diesel vehicles (e.g., compressed natural gas) or hybrid-electric vehicles; and
- It would not result in a 50 percent increase in daily arrivals at a terminal (e.g., a facility with 10 buses in the peak hour).

Therefore, for this project-level conformity determination, the Clean Air Act and 40 CFR 93.116 requirements have been met without a hot-spot analysis, since such projects as the one proposed at Columbus Plaza have been found to not be of air quality concern under 40 CFR 93.123(b)(1).

3.2.4 Noise and Vibration

The proposed rehabilitation does not qualify as a Federal Highway Administration (FHWA) Type I project (a project on new location, a project that significantly changes horizontal or vertical alignment, or a project that increases the number of through-traffic lanes) for noise; therefore, neither a detailed noise analysis nor consideration of noise abatement is required.

Any noise or vibration generated by the project would be small in the context of its environment. Furthermore, there are no land uses in the vicinity of the project that materially benefit from a controlled noise or controlled vibration environment. Therefore, the project would not have any long-term noise or vibration impacts.

3.2.5 Cultural Resources

Historical maps indicate that, prior to the construction of Union Station and Columbus Plaza in 1903, the area contained brick rowhouses, warehouses, stables and a coal yard (EHT Tracerics, Inc. 2002:2). All existing buildings were demolished in 1903 and 1904. Because the area originally sloped to the southwest with a rise toward the east, an extensive fill campaign was implemented to produce a desirable building surface (EHT Tracerics, Inc. 2002:2-3). Streets leading to Columbus Plaza were re-graded and 750,000 cubic yards of fill were required. The extensive demolition and infill completed for Union Station and Columbus Plaza suggests that intact archaeological resources no longer occur in the project area.

Three (3) architectural resources occur in the area of potential effect (APE) (Figure 1) and all are listed in the NRHP: Union Station, Columbus Plaza, and the City Post Office.

Union Station, designed by Daniel Burnham, was constructed between 1903 and 1908. The Neo-Classical Revival building, located north of the U.S. Capitol at Massachusetts and Delaware Avenues, NE, serves as the railroad's gateway into Washington, D.C. (**Figure 15**). It was listed in the D.C. Inventory of Sites in 1964 and in the NRHP in 1969. An update to the NRHP nomination form was incorporated to the original listing in 1980.



Figure 15. UNION STATION AND COLUMBUS MEMORIAL FOUNTAIN, LOOKING NORTHEAST

Columbus Plaza is a pivotal component of the Union Station complex, serving as a gateway to the main terminal, representing in design, style, and materials the essential planning principles of the City Beautiful Movement as promulgated by Daniel Burnham (**Figure 16**). Columbus Plaza was listed in the NRHP in 1980 (Taylor 1980) and is listed on the D.C. Inventory of Historic Sites. Columbus Plaza is characterized by the semi-circular design with radiating streets and avenues; open and park views from the Plaza, particularly south to the U.S. Capitol; Columbus Memorial Fountain, a significant sculpture by Lorado Taft located at the Plaza center (Figure 15); large stone fountains with balustrades at the east and west wings of the Plaza; the rostral columns in the roadway in front of Union Station; and three ornamental flagstaffs centered across the arches of the Main Hall of Union Station. In 1976, legislation was passed for the installation of state and territory flags along the perimeter of Columbus Plaza (Public Law 94-320 1976). These 56 flagpoles with associated bronze plaques contribute to the ‘grand plaza’ design of Columbus Plaza even though they are not 50 years old. At the request of the National Park Service, these flagpoles and plaques are considered contributing features to the NRHP-listed Columbus Plaza.



Figure 16. COLUMBUS PLAZA AND COLUMBUS MEMORIAL FOUNTAIN, LOOKING SOUTHWEST

Although the overall concept and major architectural features of Columbus Plaza have remained the same, alterations to the hardscape south of the Plaza have occurred through time. In 1929, Louisiana Avenue was added between E Street and Delaware Avenue, terminating at Constitution Avenue (EHT Traceries, Inc. 2002:11). Between 1946 and 1954, a narrow raised median was constructed to separate traffic on Massachusetts Avenue from Columbus Plaza and an interior circulation roadway was created between the median and Columbus Plaza providing parking on one side of a secondary roadway (EHT Traceries, Inc. 2002:11). Traffic circulation and access around Columbus Plaza were reconfigured to the present layout in 1976 (EHT Traceries, Inc. 2002:11). The historic landscape has not been diminished by previous road projects because the changes have occurred outside of Columbus Plaza in the hardscape that extended the plaza design and feel from Massachusetts Avenue to the AOC property.

The City Post Office, located at the corner of Massachusetts Avenue and North Capitol Street, NE (**Figure 17**), was constructed in 1914. Designed by the D.H. Burnham & Company, the Beaux-Arts building served as the main Washington, D.C. post office from the time of its completion until 1986. The City Post Office was listed in the D.C. Inventory of Historic Sites in 1964 and listed in the NRHP in 1983.



Figure 17. THE CITY POST OFFICE BUILDING, LOOKING NORTH

For the purposes of this document, a significant impact under NEPA will be defined as an ‘adverse effect’ under Section 106 of the National Historic Preservation Act (NHPA). Additional information on the Section 106 process is provided in a separate report, *Section 106 Compliance Review and Section 4(f) Evaluation* (PTG 2006). As a result of the extensive demolition and infill associated with the original construction of Union Station and Columbus Plaza, intact archaeological resources are unlikely to occur in the project area (EHT Tracerics, Inc. 2002:2-3). If archaeological resources are discovered during construction, work will cease immediately and appropriate agencies will be notified for consultation and evaluation in accordance with Section 106 of the NHPA.

Union Station and the City Post Office will not be affected by the proposed rehabilitation project. No architectural elements to either NRHP-listed resource will be affected.

The historic footprint, character, and features of Columbus Plaza (such as the three American flagpoles, the Columbus Memorial, the east and west fountains, balustrades and the radial walkway pattern) will not be adversely affected by the proposed project. There will be no changes to the historic structures within the plaza, other than minor improvements which will preserve the integrity of the plaza and provide for improved functioning of the memorial fountains. The existing brick walkways and granite curbs will be repaired and replaced in kind as needed. The existing subsurface mechanical systems (including water and electrical systems for the fountains and lights) will be repaired and upgraded. The existing metal fence and shrub hedge along the southern perimeter of Columbus Plaza will be removed, restoring the open character of the plaza. The non-historic interior circulation roadway in front of Columbus Plaza will be removed. The extension of parkland will create a more substantial buffer area between traffic and the

Columbus Plaza and will reintroduce uninterrupted pedestrian access and the radial walkway system through the plaza to Massachusetts Avenue. The radial walkway pattern will, in fact, be enhanced with extension of the radii to the curbline with Massachusetts Avenue and placement of additional radial walkways to approximate the original configuration. The 56 flagpoles that curve around Massachusetts Avenue on AOC property south of Columbus Plaza will not be affected. The vista and connection of the flag display to Columbus Plaza will be maintained. Minor alterations to Massachusetts Avenue on the southern and eastern edge of Columbus Plaza and subsurface utility and fountain system repairs will not affect the overall integrity of the plaza design. The proposed project will improve long-term potential impacts to Columbus Memorial Fountain by removing the interior circulation roadway, thus removing vibration within close proximity as well as the potential for vehicular damage to Columbus Memorial Fountain (no longer having vehicles driving directly in front of the memorial).

In accordance with Section 106 of the NHPA, the criteria of adverse effect have been applied (36 CFR 800.5(a)(1)), and no adverse effects will occur to the three (3) properties listed in the NRHP in the project area: Union Station, Columbus Plaza, and the City Post Office. Beneficial effects to Columbus Plaza will occur by increasing the park-like setting within the Plaza and preserving the open character of the grand plaza. The DCHPO was notified of this Determination and concurrence was requested in a letter dated June 20, 2007 (Appendix A: Exhibit A-4). Written concurrence with this finding from the DCHPO was received July 30, 2007 (Appendix A: Exhibit A-6). Subsequent to the DCHPO concurrence with a determination of no adverse effect, additional design changes have been incorporated into the proposed action as a result of ongoing coordination with review agencies. These design changes include:

- Overall symmetry in the expansion of Columbus Plaza
- Retention of historic width of original radial walkways in the expanded area
- Narrowing additional non-original radial walkways in the expanded area
- Placing a perimeter walkway along the curb of Massachusetts Avenue
- Using lighter brick, to distinguish from the historic Columbus Plaza brick, in the expanded walkways
- Maintaining the existing herringbone pattern and linear brick edging for all expanded walkways

In further consultation with the DCHPO on November 6, 2008, the design revisions are considered additional enhancements to the historic character of Columbus Plaza and continue to represent beneficial effects.

3.2.6 Parklands and Section 4(f) / Section 6(f) Resources

Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended (49 USC 303(c)), stipulates that federally funded or approved transportation projects may not use land from a publicly owned public park, recreation area, wildlife or waterfowl refuge, or from a significant historic site, unless there is no feasible or prudent alternative to the use. Significant historic sites are those that are listed in, or eligible for listing in, the National Register of Historic Places. Such use requires documentation that the proposed action includes all possible planning to minimize harm to the protected properties. In addition, Section 6(f) of the Land and Water Conservation Fund Act of 1965, as amended (16 USC 4601-8 (f)), requires land conversion approval by the U.S. Department of Interior where funds provided to a state under the statute were used to purchase or develop parklands or recreational facilities that would be used by a proposed action.

Columbus Plaza is administered by the National Park Service and as such may be considered federal park lands. The Knights of Columbus hold an annual Columbus Day commemorative wreath-laying ceremony at the Columbus statue on Columbus Plaza, which is specifically authorized under 36 CFR 7.96(g)(4)(E) (U.S. CFR 2005).

Three (3) Section 4(f) resources have been identified within the project area: Union Station, Columbus Plaza, and the City Post Office. Union Station, designed by Daniel Burnham, was constructed between 1903 and 1908. The Neo-Classical Revival building, located north of the U.S. Capitol at Massachusetts and Delaware Avenues, NE, serves as the railroad's gateway into Washington, D.C. Columbus Plaza is a pivotal component of the Union Station complex, serving as a gateway to the main terminal, representing in design, style, and materials the essential planning principles of the City Beautiful Movement as promulgated by Daniel Burnham. The City Post Office, located at the corner of Massachusetts Avenue and North Capitol Street, NE, was constructed in 1914. Designed by the D.H. Burnham & Company, the Beaux-Arts building served as the main Washington, D.C. post office from the time of its completion until 1986.

De Minimis Criteria

The requirements of Section 4(f) of the Department of Transportation Act will be considered satisfied with respect to a Section 4(f) resource if it is determined that a transportation project will have only a "*de minimis* impact" on the Section 4(f) resource. The provision allows avoidance, minimization, mitigation and enhancement measures to be considered in making the *de minimis* determination. The agencies with jurisdiction must concur in writing with the determination. For historic properties, the *de minimis* criteria are defined as "no adverse affect" or no "historic properties affected" under Section 106 of the NHPA. Based on the Section 106 review, no adverse effects will occur to NRHP-eligible resources as a result of this project. Therefore, this project qualifies for a *de minimis* assessment under Section 4(f). As required by the *de minimis* guidelines, the DCHPO was notified of this finding in a letter dated June 20, 2007 (Appendix C: Exhibit C-4). Written concurrence with the *de minimis* finding from the DCHPO was received August 16, 2007 (Appendix C: Exhibit C-7).

Access to Columbus Memorial Fountain for the annual Knights of Columbus ceremony and pedestrian access to Columbus Plaza may be restricted during project activities. Mitigation measures to alleviate decreased access to Columbus Plaza include providing temporary access to Columbus Memorial Fountain for the annual Knights of Columbus wreath laying ceremony and establishing alternate pedestrian routes across Columbus Plaza. Because access to Columbus Plaza, a Section 4(f) park land, will be mitigated during construction activities, this project has *de minimis* impact on this park land resource.

Union Station and the City Post Office will not be affected by any construction activities associated with the proposed rehabilitation; visual, audible, and atmospheric intrusions will occur during the construction phase but these effects will be temporary and will not adversely affect any architectural elements to either NRHP-listed resource. The District provisions to control airborne particulates include the use of watering and cover materials, and the application of desiccants (drying agents) such as calcium chloride. These measures have proven effective in limiting the amount of PM₁₀ that results from the use of construction equipment. While PM₁₀ levels would be elevated in the vicinity of construction work, the implementation of effective countermeasures will be included in the final contracts to limit the impacts of construction on PM₁₀ levels. Provisions for this work effort will be included in the specifications for the final design. Because visual and atmospheric intrusions resulting from PM₁₀ levels during construction would be mitigated, this project has *de minimis* impact for Union Station and the City Post Office.

The historic footprint, character, and features of Columbus Plaza (such as the three American flagpoles, the Columbus Memorial, the east and west fountains, balustrades and the radial walkway pattern) will not be adversely affected by the proposed undertaking. There will be no changes to the historic structures within the plaza, other than minor improvements which will preserve the integrity of the plaza and provide for improved functioning of the memorial fountains. The existing brick paving will be repaired and replaced in kind as needed. The existing subsurface mechanical systems (including water and electrical systems for the fountains and lights) will be repaired and upgraded. The existing metal fence and shrub hedge along the southern perimeter of Columbus Plaza will be removed, restoring the open character of the plaza. The non-historic interior circulation roadway in front of Columbus Plaza will be removed. The extension of parkland will create a more substantial buffer area between traffic and the

Columbus Plaza and will reintroduce uninterrupted pedestrian access and the radial walkway system through the plaza to Massachusetts Avenue. The radial walkway pattern will, in fact, be enhanced with extension of the radii to the curblineline with Massachusetts Avenue and placement of additional radial walkways to approximate the original configuration. The 56 flagpoles that curve around Massachusetts Avenue on AOC property south of Columbus Plaza will not be affected. The vista and connection of the flag display to Columbus Plaza will be maintained. Minor alterations to Massachusetts Avenue on the southern and eastern edge of Columbus Plaza and subsurface utility and fountain system repairs will not affect the overall integrity of the plaza design. The proposed undertaking will improve long-term potential impacts to Columbus Memorial Fountain by removing the interior circulation roadway, thus removing vibration within close proximity as well as the potential for vehicular damage to Columbus Memorial Fountain (no longer having vehicles driving directly in front of the memorial).

Temporary vibration of construction activities in close proximity to the Columbus Memorial Fountain, and the east and west bowl fountains, will be somewhat more pronounced than the daily vibration impacts caused by buses and other traffic in the interior circulation roadway. However, the NPS requested mitigation measures to address the potential impacts caused by vibration during the construction phase of the project. These include: installation of crack/joint monitors in several key points on Columbus Memorial Fountain; regular monitoring of these cracks/joints for signs of stress or failure; immediate cessation and reevaluation of work activities if structural failures become apparent; providing appropriate drainage and staging areas away from Columbus Memorial Fountain during construction; and limits to the proximity of heavy equipment to Columbus Memorial Fountain during construction.

Long term beneficial effects will occur to Columbus Plaza and Columbus Memorial Fountain as a result of the implementation of the proposed rehabilitation project including repair of walkways, curbing, water and electrical systems for the fountains, and lighting. Columbus Plaza will be extended by the removal of the existing metal fence, shrub hedge, and interior circulation roadway along the southern perimeter and replaced with extended brick walkways and grass sod, restoring the open character of the plaza. The extension of parkland will create a more substantial buffer area between traffic and the Columbus Plaza and will reintroduce uninterrupted pedestrian access and the radial walkway system through the plaza to Massachusetts Avenue. Temporary construction impacts due to vibration will be mitigated for Columbus Memorial Fountain and the east and west bowl fountains as indicated above. Because vibration impacts to the fountains in Columbus Plaza will be mitigated during construction activities and the rehabilitation project will create beneficial effects to Columbus Plaza, this project has *de minimis* impact for Columbus Plaza.

3.2.7 Visual and Aesthetics

The location and design of Union Station and Columbus Plaza incorporated open views of Union Station proper from all street approaches. The chosen alignment placed Columbus Plaza at the center, with streets radiating to the northwest (1st Street), west (Massachusetts Avenue) southwest (E Street), south (Delaware Avenue), southeast (1st Street), and east (Massachusetts Avenue). These radiating streets provide symmetry to Columbus Plaza which serves as a grand forecourt to Union Station.

Union Station also commands expansive views to the U.S. Capitol complex to the south along Louisiana and Delaware Avenues. In 1929, land was purchased to extend the U.S. Capitol Grounds to Union Station and to create a park-like vista between the two buildings.

The proposed rehabilitation to Columbus Plaza will have no impact to the visual and aesthetics of the surrounding area. The proposed undertaking will be a positive change to the existing view as a result of enhancing the park-like setting and preserving the open character of the grand plaza. Specifically, this view will be enhanced by (1) the additional streetscaping on the eastern, western, and southern edges of Columbus Plaza, (2) extension of the existing brick walkways in a radial pattern with areas of grass sod between, (3) installation of additional pedestrian lighting along the interior walkways of Columbus Plaza,

and (4) the repair of lighting to illuminate Columbus Memorial Fountain and the three ornamental flagpoles in front of Union Station.

An information kiosk for cyclists will be installed near the new Bike Station on the west side of Union Station. No other wayfinding or destination information signage is currently part of this proposed rehabilitation. If wayfinding and destination information signage is required at a future date, consultation will be conducted with the NPS, DCHPO, NCPC and CFA to determine format and placement of signage.

3.3 MITIGATION MEASURES

The only potential impacts are related to traffic and transportation, land use and socioeconomics, air quality, noise and vibration, cultural resources, parklands and Section 4(f)/Section 6(f) resources, and visual and aesthetic elements. Mitigation measures presented here are in reference to long-term impacts only.

3.3.1 Traffic and Transportation

Because of the positive change to traffic, transit, and non-motorized transportation modes, with the implementation of maintenance of traffic (MOT) measures, no additional mitigation measures are needed to maintain sufficient transportation service. Pedestrian access to Union Station will be maintained during construction activities. Sufficient traffic controls to ensure pedestrian safety at project area intersections will be included in the final design.

3.3.2 Land Use and Socioeconomics

Because no social, community, or environmental justice impacts are expected to occur under the Proposed Action, long-term mitigation is not required. The minor land use changes are the result of land jurisdictional changes; any transfers will be reviewed and approved by appropriate federal agencies.

3.3.3 Air Quality

Because no long-term air quality issues are expected to occur under the Proposed Action, long-term mitigation is not required.

3.3.4 Noise and Vibration

Because no long-term noise and vibration issues are expected to occur under the Proposed Action, long-term mitigation is not required.

3.3.5 Cultural Resources

It is anticipated that no adverse effects would occur to the three properties listed on the NRHP. Beneficial effects will occur to Columbus Plaza and Columbus Memorial Fountain as discussed in Section 3.2.5. Therefore, no additional mitigation is required beyond what has been outlined above in Section 3.3.4.

3.3.6 Parklands and Section 4(f)/Section 6(f) Resources

Based on the Section 106 review, no adverse effects will occur to NRHP-eligible resources as a result of this project. Therefore, this project qualifies for a *de minimis* assessment under Section 4(f). Because access to Columbus Plaza, a Section 4(f) park land, will be mitigated during construction activities, this project has *de minimis* impact on this park land resource. Because visual and atmospheric intrusions resulting from PM₁₀ levels during construction would be mitigated, this project has *de minimis* impact for Union Station and the City Post Office. Because vibration impacts to the fountains in Columbus Plaza will be mitigated during construction activities and the rehabilitation project will create beneficial effects to Columbus Plaza, this project has *de minimis* impact for Columbus Plaza.

3.3.7 Visual and Aesthetics

Because of the positive change to the existing view as a result of enhancing the park-like setting and preserving the open character of the grand plaza, no mitigation measures are needed for impacts to visual and aesthetic elements. The design of the improved Columbus Plaza will be coordinated with the DCHPO as well as the U.S. Commission of Fine Arts (CFA) and the National Capital Planning Commission (NCPC). This coordination is ongoing.

3.4 CONSTRUCTION IMPACTS AND SHORT-TERM MITIGATION MEASURES

The only potential short-term impacts are related to traffic and transportation, land use and socioeconomics, air quality, noise and vibration, cultural resources, parklands and Section 4(f)/Section 6(f) resources, and visual and aesthetic elements. Potential impacts to these resources resulting from construction activities are more specifically discussed below.

3.4.1 Traffic and Transportation

Any construction impacts to traffic and transportation systems are anticipated to be short-term in duration. Maintenance of traffic (MOT) plans have been prepared for the 95 percent design completion. Any adverse impacts will be minimized through the use of Best Management Practices (BMPs) and the maintenance and protection of traffic.

Construction will be accomplished in phases defined within the maintenance of traffic plans. There will be no designated detours associated with construction. Travel lanes will be maintained throughout construction, including access lanes in front of Union Station. Traffic control shall be accomplished in accordance with the Manual of Uniform Traffic Control Devices. Work shall be performed between 7 AM and 4 PM. The Contractor shall not work at night, on weekends, or holidays unless approved by the Engineer.

The Construction Contractor shall maintain the proper and safe flow of pedestrian traffic within and adjacent to the project area at all times, including across Columbus Plaza.

3.4.2 Land Use and Socioeconomics

Construction of the proposed rehabilitation would have no effect on land use or planning/zoning in the study area. Although construction of the proposed rehabilitation is not expected to directly affect study area residents, various BMPs would be implemented to further reduce the potential for impacts associated with noise, dust, and traffic.

3.4.3 Air Quality

The temporary air quality impacts from construction are not expected to be significant. Construction activities would be conducted in accordance with DDOT's *Design and Engineering Manual* (DCDOT 2006a) and *Standard Specifications for Highways and Structures* (DCDOT 2006b).

Local inhalable particulate (PM₁₀) concentrations can become elevated from construction work and, depending on factors such as meteorology, the particulate matter can remain airborne for several hours. In general, however, particulate emissions from construction activities are of larger particles, which disperse rapidly both in distance and in time.

The District provisions to control airborne particulates include the use of watering and cover materials, and the application of desiccants (drying agents) such as calcium chloride. These measures have proven effective in limiting the amount of PM₁₀ that results from the use of construction equipment.

While PM₁₀ levels would be elevated in the vicinity of construction work, the implementation of effective countermeasures will be included in the final contracts to limit the impacts of construction on PM₁₀ levels. Provisions for this work effort will be included in the specifications for the final design.

3.4.4 Noise and Vibration

In October 2005, the NPS expressed concern over the potential impacts from vibration to the Columbus Memorial Fountain caused by the removal of the interior circulation roadway, construction vehicle movement, and the construction of the expanded plaza. In March 2005, due to a failure of the upper bowl rim, three of the skirt stones fell into the lower bowl (**Figure 18**). Numerous failures were found during the emergency work that continue to be of concern in relation to potential effects of the road realignment project to Columbus Memorial Fountain:

- Structural ferrous metal cramps and pins are failing;
- Stone fasteners and concrete within the substructure are deteriorated;
- Open mortar joints and old patches now allow water into the fountain's core; and
- Spalling of cement based pargeting.

Additional concerns for vibration effects include the historic east and west bowl fountains on the north of Columbus Plaza, though existing structural deficiencies are not as critical in those resources as they are in the Columbus Memorial Fountain.

Noise and vibration during construction comes from the associated equipment and activities and are, by their nature, temporary effects. However, temporary vibration of construction activities in close proximity to the Columbus Memorial Fountain, and the east and west bowl fountains, have the potential to be somewhat more pronounced than the daily vibration impacts caused by buses and other traffic in the interior circulation roadway. However, the NPS requested mitigation measures to address the potential impacts caused by vibration during the construction phase of the project. These include: installation of crack/joint monitors in several key points on Columbus Memorial Fountain; regular monitoring of these cracks/joints for signs of stress or failure; immediate cessation and reevaluation of work activities if structural failures become apparent; providing appropriate drainage and staging areas away from Columbus Memorial Fountain during construction; and limits to the proximity of heavy equipment to Columbus Memorial Fountain during construction.

The plan for protection and monitoring of the Columbus Memorial Fountain and Columbus Plaza, developed by the Construction Contractor, must be submitted to NPS as part of the permitting process. The protection and monitoring plan must be approved by NPS and fully installed and accepted by NPS prior to start of construction on NPS property. The plan must include the method of stabilizing and isolating any or all stone work, walls and monument statuary which are within the construction limits, and, in the opinion of NPS, may be affected by construction activity. The Construction Contractor shall install a stand-alone measurement and control device approved by NPS which is capable of monitoring structural integrity such as crack width, tilt and vibration. The Contractor shall notify NPS prior to installation of the monitoring equipment. If progressive or accidental damage occurs to the historical structures in the NPS area, work must stop immediately and NPS must be notified. The same type of monitoring and protection plan required by NPS for Columbus Plaza and Fountain will be implemented for the rostral columns and balustrades, under the jurisdiction of the USRC, and will be developed by the Construction Contractor.

In addition, construction noise and vibration effects can be made more tolerable by contractor sensitivity in selecting less noisy or reverberant techniques and equipment, controlling hours of operation, and following government codes and equipment standards. The applicable local codes for construction activities are contained in Title 20 of the D.C. Municipal Regulations (DCMR) and would be used to mitigate any significant construction noise levels.



Figure 18. MISSING SKIRT STONES RESULTING FROM FAILURE OF THE UPPER BOWL RIM, COLUMBUS MEMORIAL FOUNTAIN, MARCH 2005

3.4.5 Cultural Resources

Union Station and the City Post Office will not be affected by any construction activities associated with the proposed rehabilitation; visual, audible, and atmospheric intrusions will occur during the construction phase but these effects will be temporary and will not adversely affect any architectural elements to either NRHP-listed resource. Mitigation measures as discussed in Section 3.4.3 will be implemented to reduce visual and atmospheric intrusions resulting from the increase in PM_{10} levels.

The historic footprint, character, and features of Columbus Plaza (such as the three American flagpoles, the Columbus Memorial, the east and west fountains, balustrades and the radial walkway pattern) will not be adversely affected by the proposed project. During construction, the existing brick walkways and granite curbs will be repaired and replaced in kind as needed. The existing subsurface mechanical systems (including water and electrical systems for the fountains and lights) will be repaired and upgraded. The existing metal fence and shrub hedge along the southern perimeter of Columbus Plaza will be removed, restoring the open character of the plaza. The non-historic interior circulation roadway in front of Columbus Plaza will be removed. The extension of parkland will create a more substantial buffer area between traffic and the Columbus Plaza and will reintroduce uninterrupted pedestrian access and the radial walkway system through the plaza to Massachusetts Avenue. Rehabilitation of Columbus Plaza will have a beneficial impact on this NRHP-listed resource.

3.4.6 Parklands and Section 4(f)/Section 6(f) Resources

Access to Columbus Memorial Fountain for the annual Knights of Columbus ceremony and pedestrian access to Columbus Plaza may be restricted during project activities. Mitigation measures to alleviate decreased access to Columbus Plaza include providing temporary access to Columbus Memorial Fountain

for the annual Knights of Columbus wreath laying ceremony and establishing alternate pedestrian routes across Columbus Plaza.

3.4.7 Visual and Aesthetics

Construction activities and the location of staging areas may temporarily impact the visual and aesthetic elements intrinsic to Columbus Plaza. Any adjacent construction staging areas must be mitigated through visual screening.

3.5 CUMULATIVE IMPACTS

Two additional projects are scheduled for construction at Union Station: the proposed Bike Station located on the west portico of Union Station between 1st Street and Union Station, and the installation of security bollards in front of Union Station.

DDOT is constructing a single story slab on grade, 1500 square foot, storage, repair, rental, and retail center for bicycles in the west portico area of Union Station. This Bike Station facility will provide accommodations to store 80 valet-parked bicycles and 20 rental bicycles. Forty (40) additional spaces will be provided for self-serve parking. Space will be provided for bicycle repairs along with a counter rental/retail area. The Bike Station facility has a tear drop shaped plan with a curved steel and glass superstructure reminiscent of a cyclist racing helmet. Paving around the Bike Station will be distinctive to accentuate the design. The Bike Station project was determined to have no adverse effect on adjacent NRHP-listed resources (i.e., Union Station, Columbus Plaza and Columbus Memorial Fountain, and the City Post Office Building) and the DCHPO concurred with this determination on November 10, 2005. The NCPC and CFA approved the Bike Station design in 2006.

USRC is constructing a system of fixed and removable security bollards along the front of Union Station and along portions of the east and west porticos (National Railroad Passenger Corporation 2008). Bollards shall be placed to provide protection to the building, and spaced to allow easy passage by pedestrians, including handicapped. Bollards shall be erected of steel pipe painted in black powder semi-gloss; 195 fixed pipe bollards, 12 removable bollards, and 8 stone clad bollards at the ends of the lines of steel pipe bollards. Ornamentation shall be minimal, so that the bollards are streetscape features that do not conflict with the monumental architecture of the NRHP-listed Union Station. The stone clad end bollards will be of a configuration reflective of the historic stone balustrades in the vicinity. An EA for the installation of the security bollards has been completed (National Railroad Passenger Corporation 2008).

CONSULTATION AND COORDINATION

The proposed project would improve access and circulation patterns in and around Columbus Circle/Columbus Plaza for pedestrians, taxis, bicyclists, private vehicles, commercial vehicles, Metro buses, private motor coaches, and tour buses with permanent stops at Union Station. Minor alterations to the hardscape south of Columbus Plaza will not disturb the main historic features of the Plaza or affect the overall design integrity of the Plaza. Beneficial effects, as a result of this project, include increasing the park-like setting within Columbus Plaza and preserving the open character of the grand plaza.

Representatives from NPS, USRC, DCHPO, NCPC (as a cooperating agency), CFA, AOC, and WMATA have reviewed documents and/or participated in the study of the proposed plans for the Columbus Plaza rehabilitation project. A cooperative agreement between DDOT, USRC and the NPS was signed in 2004 and amended in 2006 regarding this project (Appendix B). The concerns of these agencies have been addressed during the planning process and solutions have been suggested that would avoid adverse effects to NRHP-listed resources and avoid the use of Section 4(f) resources and minimize harm to those resources.

Project meetings, field visits, and phone contact with stakeholders regarding the preliminary design plans and specific design elements were conducted (**Table 3**). Meeting agendas, sign-in sheets and minutes are provided in Appendix C.

Table 3. AGENCY COORDINATION AND PROJECT MEETINGS

DATE	ISSUES	PARTICIPANTS
9/4/03	Pedestrian Issues	AOC, Thurgood Marshall Building
2/18/04	Bus Circulation	WMATA, USRC
7/13/05	Bicycle Issues	DDOT, USRC
8/11/05	Final Design Kick off	
9/1/05	Security	USRC
9/14/05	Project Status	NPS, DDOT
10/6/05	Project Status	NPS, DDOT
10/13/05	Project Status	NPS
10/17/05	Field Visit	NPS, DDOT
12/5/05	Project Status	USRC, Thurgood Marshall Building
12/15/05	Stakeholder's Briefing	
1/20/06	Project Status	AOC
2/16/06	Preliminary Design 65% Presentation	CFA
3/2/06	Preliminary Design 65% Presentation	NCPC
3/10/06	Bike Station	DDOT, FHWA
3/27/06	NEPA	NPS
6/1/06	Project Status	AOC
6/7/06	Bus Circulation	WMATA, USRC

DATE	ISSUES	PARTICIPANTS
8/3/06	Project Status	AOC, USRC, Thurgood Marshall Building
1/26/07	Project Status	Administrative Office of the US Courts
2/22/07	Land Transfer Issues	NPS, DDOT, AOC
3/15/07	Project Status	AOC
4/15/07	Project Status	NPS, DDOT, NCPC, CFA
9/20/07	Project Presentation	CFA
9/26/07	Project Status	CFA
10/2/07	Project Status	DDOT, NPS, USRC
2/20/08	Field Visit	DDOT, NPS, NCPC, CFA, FTA
3/19/08	Project Status and Costs	NPS
4/7/08	Field Visit	DDOT, FTA
4/11/08	Project Status	NPS
6/6/08	Final Design Presentation	CFA
6/19/08	Discussion of CFA Findings	CFA (staff)
8/25/08	Preliminary Revised Concept	CFA, NCPC
9/18/08	Revised Concept Presentation	CFA
10/2/08	Revised Concept/Design Schedule	NCPC
11/06/08	Revised Concept	DCHPO

Meetings and written communications were conducted with Section 106 and Section 4(f) reviewing agency personnel between January 2006 and November 2008. Appendix A contains 8 letters: dated January 24, 2006: Exhibit A-1 is a letter to DCHPO requesting initiation of Section 106 consultation; Exhibit A-2 is a letter to CFA requesting review of revised design concept at a February 16, 2006 meeting; Exhibit A-3 is a letter to NCPC requesting review and approval of preliminary design at a March 2, 2006 meeting in accordance with Section 5 of the National Capital Planning Act; Exhibit A-4 is a letter to the DCHPO requesting concurrence with the Determination of No Adverse Effect and the use of *De Minimis* for the Section 4(f) analysis; Exhibit A-5 is a letter to the U.S. Fish and Wildlife Service transmitting the Draft EA; Exhibit A-6 is the concurrence letter from the DCHPO on a finding of no adverse effect; Exhibit A-7 is the concurrence letter from the DCHPO on the use of the de minimis approach; and Exhibit A-8 is the approval letter from CFA on the revised symmetrical design for the proposed action. As required, further coordination with these agencies is ongoing.

In addition to the above-mentioned agencies, the following stakeholders were consulted during the course of this study:

- Administrative Offices of the U.S. Courts
- Advisory Neighborhood Commission 6C (Affected Special Member Districts)
- Consolidated Engineering Company
- D.C. Department of Health
- D.C. Water and Sewer Authority (WASA)
- Federal City Council
- Jones Lang LaSalle (T/A Union Station Venture II, LLC)
- Knights of Columbus
- Louis Dreyfus Property Group
- National Railroad Passenger Corporation (AMTRAK)

- Potomac Electric Power Company (PEPCO)
- Securities Exchange Commission (SEC) Building
- Thurgood Marshall Building
- U.S. Department of Transportation
 - Federal Highway Administration
 - Federal Railroad Administration
 - Federal Transit Administration
- Union Station Parking Garage, Limited Liability Company (USPG, LLC)
- Washington Gas Company

The Draft EA was submitted for public review on April 25, 2008. The 30-day public comment period ended on May 27, 2008. Only six comments were received and provided by the Architect of the Capitol and the D.C. Office of Planning. Appendix D contains the original comment correspondence. The comments and responses are as follows:

Comment: Will the 2 new pedestrian cross ways between Union Station and the Thurgood Marshall Federal Judiciary Building (at Columbus Circle) be constructed with **raised/elevated** stamped concrete and ramps?

Response: Yes, both crosswalks will be raised and constructed of stamped concrete. The crosswalk nearer to Massachusetts Avenue will also have roadway that is elevated prior to reaching the crosswalk. This will serve to alert drivers to slow before reaching the crosswalk.

Comment: What is the extent of the widening of Massachusetts Avenue? What is the proposed width? Can it be narrowed?

Response: The existing width of Massachusetts Avenue is 108 feet (maximum), face of curb to face of curb. The design requires the width of 125 feet, face of curb to face of curb. The widening is therefore 17 feet (maximum). The widening is intended to provide wider medians as pedestrian reservations. The existing median is 22 feet in the center and 9 feet wide in the extremes; the proposed median is 36 feet in the center and 25 feet wide in the extremes. Given the heavy pedestrian use, the wider median will provide greater safety.

Comment: Some of the walkways through Columbus Plaza from the Columbus Fountain end at Massachusetts Avenue where there are no traffic signals for pedestrian crossings. Please explain.

Response: At the request of the National Park Service and the District Historic Preservation Office, additional radial walkways were provided to better reflect the connection of Columbus Plaza with the streets that radiate from the circle. There is a circumferential walkway that connects these radial walks to designated pedestrian crossings.

Comment: The DC Office of Planning encourages the creation of more park-like space. Why are the benches and interior landscaping removed from Columbus Plaza?

Response: At the request of National Park Service (Columbus Plaza is within NPS jurisdiction), the landscaping interior to the plaza has been reduced. The original plaza consisted of brick paving and grass panels and NPS desires to return the plaza to as near its original configuration as possible.

Comment: The increase in hardscape and lack of landscape in the medians in Massachusetts Avenue is of concern. The DC Office of Planning would like to see vegetation in the medians to discourage pedestrian crossings in non crosswalk areas and to reduce the hardscape.

Response: NPS requested that there be no plantings in the medians for the following reasons:

- Plantings would compete with the view from interior of Columbus Plaza, particularly with regard to the Circle of State Flags.
- The early configuration of the medians in Massachusetts Avenue were paved, with no plantings. At the encouragement of review agencies, including the Commission of Fine Arts, the landscaping of the medians was not included in an effort to return the area to its original look as best as possible.

Comment: Why was Water Quality not addressed in the EA? The DC Office of Planning would like to see what LID practices will be required during construction.

Response: Generally, the project, as designed, does not alter the storm water collection from that in use today. Therefore, no adverse effect on water quality will result from this project. The project, as designed, reduces the amount of impervious surface (paved areas) by removing the existing interior circulation roadway. Landscaping will not include any non-native or invasive species, and most existing landscaping will be removed and replaced with grass, as requested by the National Park Service. Paved areas that remain will be replaced in kind. In the case of the interior Columbus Plaza, no changes to the paving type are included, in deference to the historic nature of the plaza. Existing plaza paving, much of which is from original construction, will be retained. During construction, standard erosion and sediment control measures, as required by DDOT, will be used, and will include, but are not limited to, silt fences, hay bales, and inlet protection devices. The required measures are included in the contract documents.

The public comments received did not change the conclusions in the EA about the environmental effects of the action.

REFERENCES

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- 2006 Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas (EPA420-B-06-902). Washington, D.C.

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- 1976 Public Law 94-320, 94th Congress, S. 3161. June 25, 1976. Act authorizing placement of certain flagpoles on the U.S. Capitol Grounds adjacent or in close proximity to the sidewalks abutting the circular perimeter of the Union Station Plaza in front of Columbus Plaza.

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- 2004 36 CFR Part 800, Protection of Historic Properties.
- 2005 36 CFR 7.96. Parks, Forests and Public Property (Title 36), National Park Service, Department of the Interior, Special Regulations, Areas of the National Park System (Part 7), National Capital Region.



COORDINATION LETTERS



COOPERATIVE AGREEMENT AND MODIFICATION BETWEEN DDOT, USRC AND THE NPS

Transportation Improvements Including the Reconfiguration of Columbus Circle and Columbus Plaza at
Historic Union Station, Washington, DC



MEETING INFORMATION



COMMENT LETTERS
