

STAFF RECOMMENDATION

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NCPC File No. 6855



UNION STATION
PERIMETER SECURITY
50 Massachusetts Avenue, NE
Washington, DC

Submitted by the Federal Railroad Administration, AMTRAK,
and the Union Station Redevelopment Corporation

September 26, 2008

Abstract

The Federal Railroad Administration, AMTRAK, and the Union Station Redevelopment Corporation have submitted preliminary and final site development plans for perimeter security around the front and sides of Union Station, based on both a threat assessment and an Environmental Assessment. The Federal Railroad Administration served as the lead federal agency for reviews under the National Environmental Policy Act and the National Historic Preservation Act. The Union Station Redevelopment Corporation manages Union Station and the adjacent traffic lanes in Columbus Plaza. Union Station and Columbus Plaza are historic properties listed in the National Register of Historic Places. The project design was developed and modified to balance urban design and pedestrian needs with security needs. The plans were developed in concert with the proposed redesign of Columbus Plaza, an initiative by the National Park Service and the District Department of Transportation that will be submitted for Commission review in several months. As a part of the Plaza reconstruction, the curb line of the station's sidewalk will be extended six feet to the south, and the traffic lanes and medians will be realigned and reconstructed. The two projects will likely be combined and constructed as one project under the direction of the District Department of Transportation.

Commission Action Requested by Applicant

Approval of preliminary and final site development plans pursuant to 40 U.S.C. §8722(b)(1) and (d).

Executive Director's Recommendation

The Commission:

Finds that the Environmental Assessment prepared by the Federal Railroad Administration for the project and the public comments on the Environmental Assessment provide information to guide the Commission in its decision-making and that the Executive Director has issued a finding of no significant impact for the proposal.

Approves preliminary and final site development plans for perimeter security at Union Station, as shown on NCPC Map File No. 1.11(38.40)42565.

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PROJECT DESCRIPTION

Site

At the confluence of Massachusetts Avenue, NE and major avenues to the north of the U.S. Capitol and National Mall, Washington Union Station was sited and designed by Daniel Burnham, the leader of the McMillan Commission that envisioned and implemented modern improvements to the nation's capital one hundred years ago. The station continues to represent and evoke the social, planning, and architectural history of that era, and serves as an important transportation hub for the city and region today. Union Station and Columbus Plaza are listed in the National Register of Historic Places.

Background

The Federal Railroad Administration (FRA), AMTRAK, and the Union Station Redevelopment Corporation (USRC), hereafter referred to collectively as the applicants, have determined that perimeter security is required at Union Station, following a security assessment that analyzed threats, risks, and impacts to the building and the public. Physical and operational security measures are being proposed or have been implemented at railroad stations operated by AMTRAK in other cities. AMTRAK's security assessment concludes that Washington Union Station, which daily attracts large numbers of people and has a visible and symbolic presence, requires the installation of a physical barrier for structural reasons in order to maintain distance between vehicles and the station. The submission before the Commission concerns the public front and sides of Union Station. Other physical and operational measures inside the station already have been taken.

The project design was developed and modified over the past year to balance urban design and pedestrian needs with security needs. In addition, the proposed location and design of the security perimeter were developed in concert with the proposed redesign of Columbus Plaza, a project of the National Park Service and of the District Department of Transportation that will be submitted for Commission review in several months. Both project teams coordinated their projects with federal and District of Columbia agency representatives and have completed environmental and historic preservation reviews.

Proposal

The applicants propose a line of bollards around the front and east and west sidewalks of Union Station. The concrete sidewalks will be widened on the south and east sides of the station; along the front of the station, the curb will move six feet southward and on the east side the curb will move up to fifteen feet eastward. The bollards will be installed 2'4" inside the newly expanded south sidewalk curb line, in the concrete walkway in front of and underneath the station's monumental arcade.

The bollard line consists primarily of 194 fixed and eleven removable bollards measuring six inches in diameter and approximately 30 inches in height and installed with a principal spacing of five feet on center. This spacing is used across the front of the station, in the median between the first two traffic lanes, and elsewhere around the site. For the heavily-trafficked southwest portico, next to the Metrorail escalators, the spacing for pedestrians is 5'2" or 5'8" at the two openings. On the east side of the station, the southeast corner portico proposes bollard spacing of 5'2" and 5'4 1/2" on center. One arched opening farther north on the west side has a narrower spacing of 4'4 1/2" on center.

Although there is some variation in the bollard spacing, given the dimensions of various openings in the arches of the arcade, a uniform appearance will be achieved and pedestrian movement has been accommodated.

The five-feet-on-center spacing and the 30-inch bollard height are the standards developed and tested for medium-level security barriers by the Smithsonian Institution and approved for installation at several of its buildings by the Commission. The Union Station submission meets or exceeds this standard for bollard height and spacing at almost every location along the arcade, in order to provide unimpeded pedestrian flow to the greatest degree possible.

The bollard lines are set in from the front corners of the site, aligned with the corner piers of the arcade to reduce their visibility from the plaza and to minimize the number of bollards and possibility of obstruction at the corners.

The eight removable bollards across the taxi lane (four at each end) will normally not be installed, in order to allow for the continuation of unimpeded taxi service at curbside. In the event that security circumstances warranted it, the removable bollards could be installed temporarily, moving the taxi lane farther away from the station, to the second traffic lane. (And taxis might be subject to some operational security measures.)

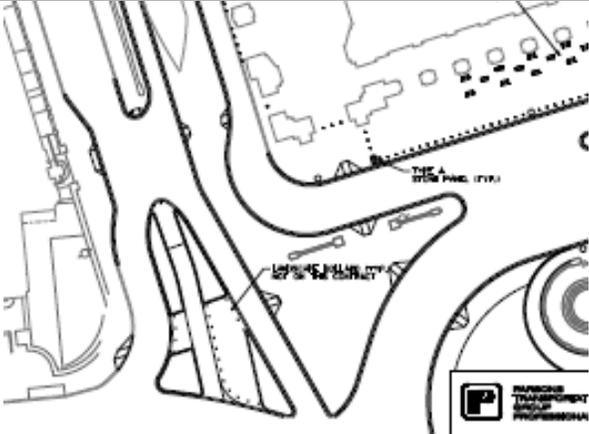
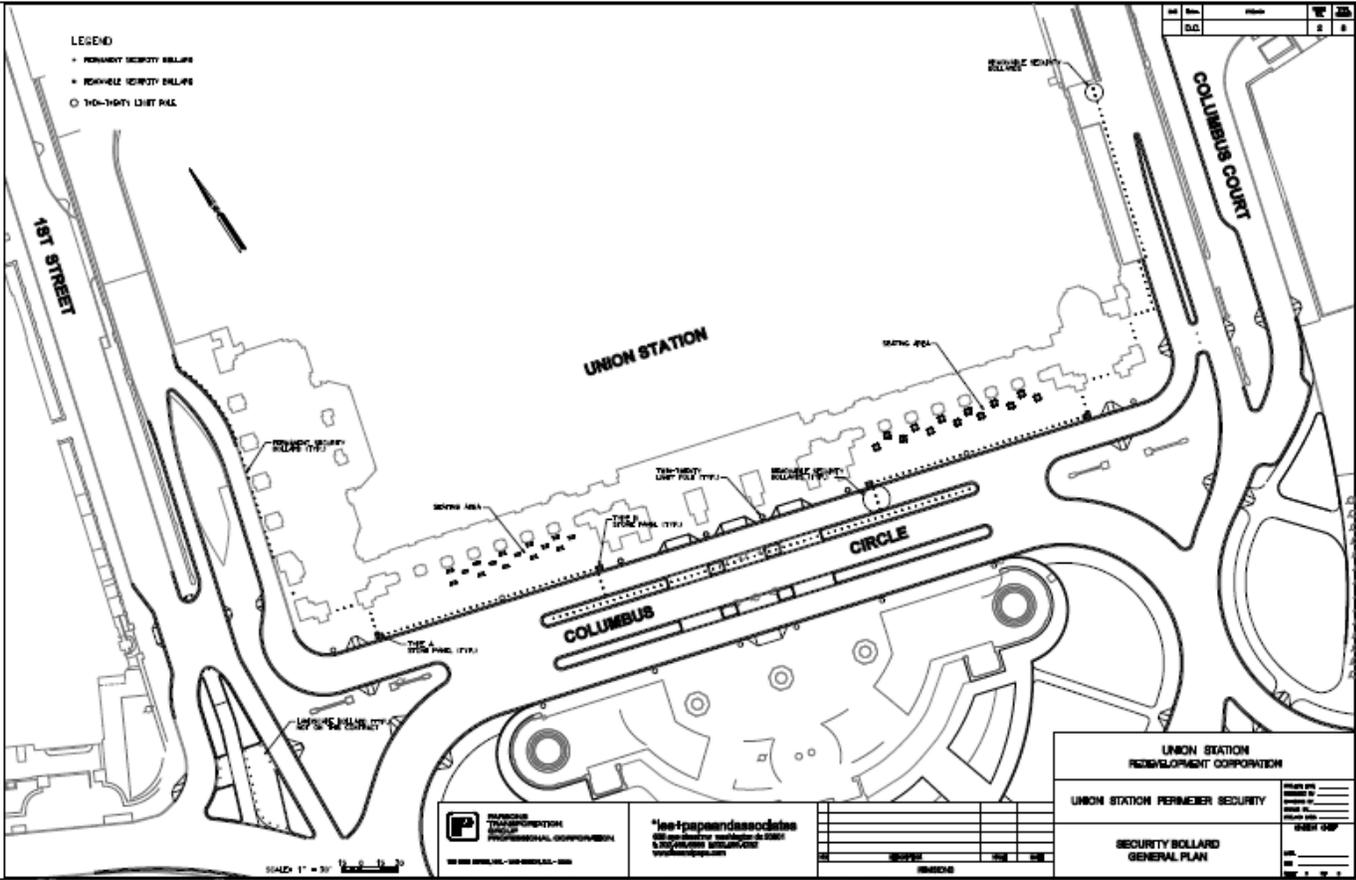
The removable bollards proposed for the east and west sides of the station will allow for access by maintenance vehicles and normally will be in the installed position.

The bollards will be painted black, to match the paint color of the historic rostral columns in Columbus Plaza. Four new granite neoclassical elements, measuring 36 inches in height and similar in character to--but at a different scale from--those used to terminate the balustrades in Columbus Plaza will punctuate the bollard line where it turns corners at prominent piers on the station's façade and plan. Hardened Washington Globe light standards are also proposed on the

plans. although the Commission of Fine Arts proposed studying a modified design solution for lighting at its September 18, 2008 meeting. Following further study, the light standards will be submitted as part of the Columbus Plaza site design for review by the Commission.

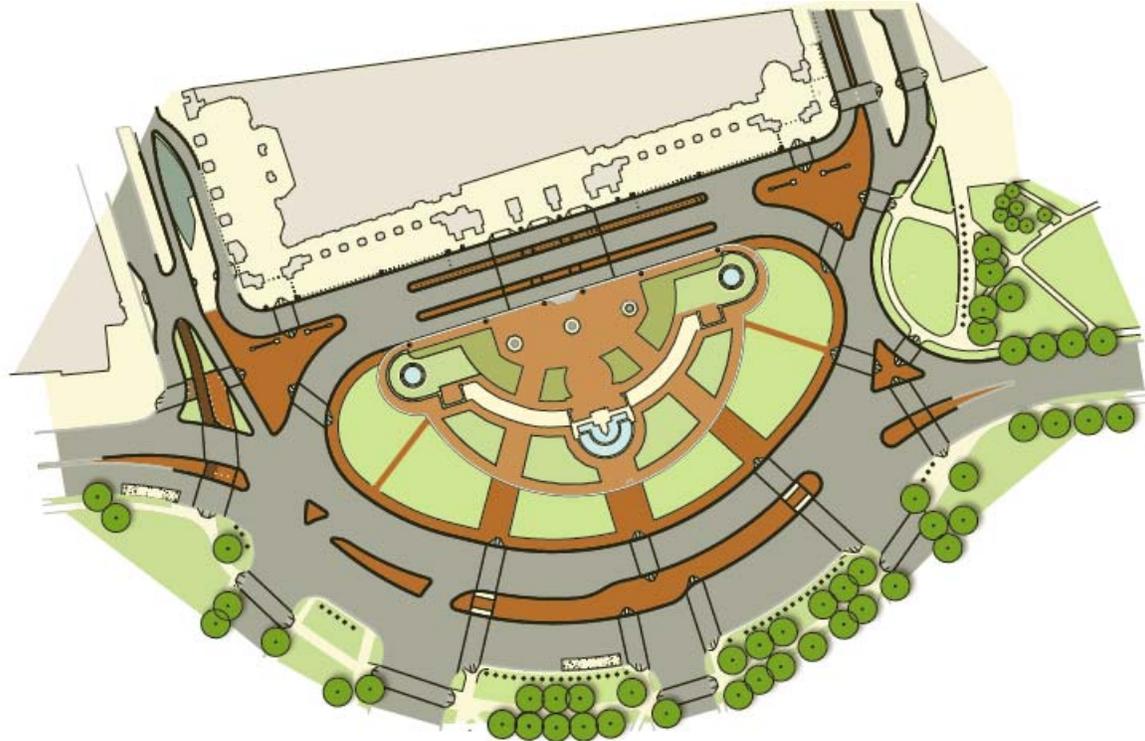


Photograph of Union Station from the southeast, showing the approach by vehicle. As shown on the site plan on the next page, fixed bollards will be installed across the median between the first and second traffic lanes, away from the monumental central portico of the station. Bollards across the first traffic lane (for taxi pick-up and drop-off) are removable, and the default condition is not to have them installed. *See the plan and details on the following pages.*

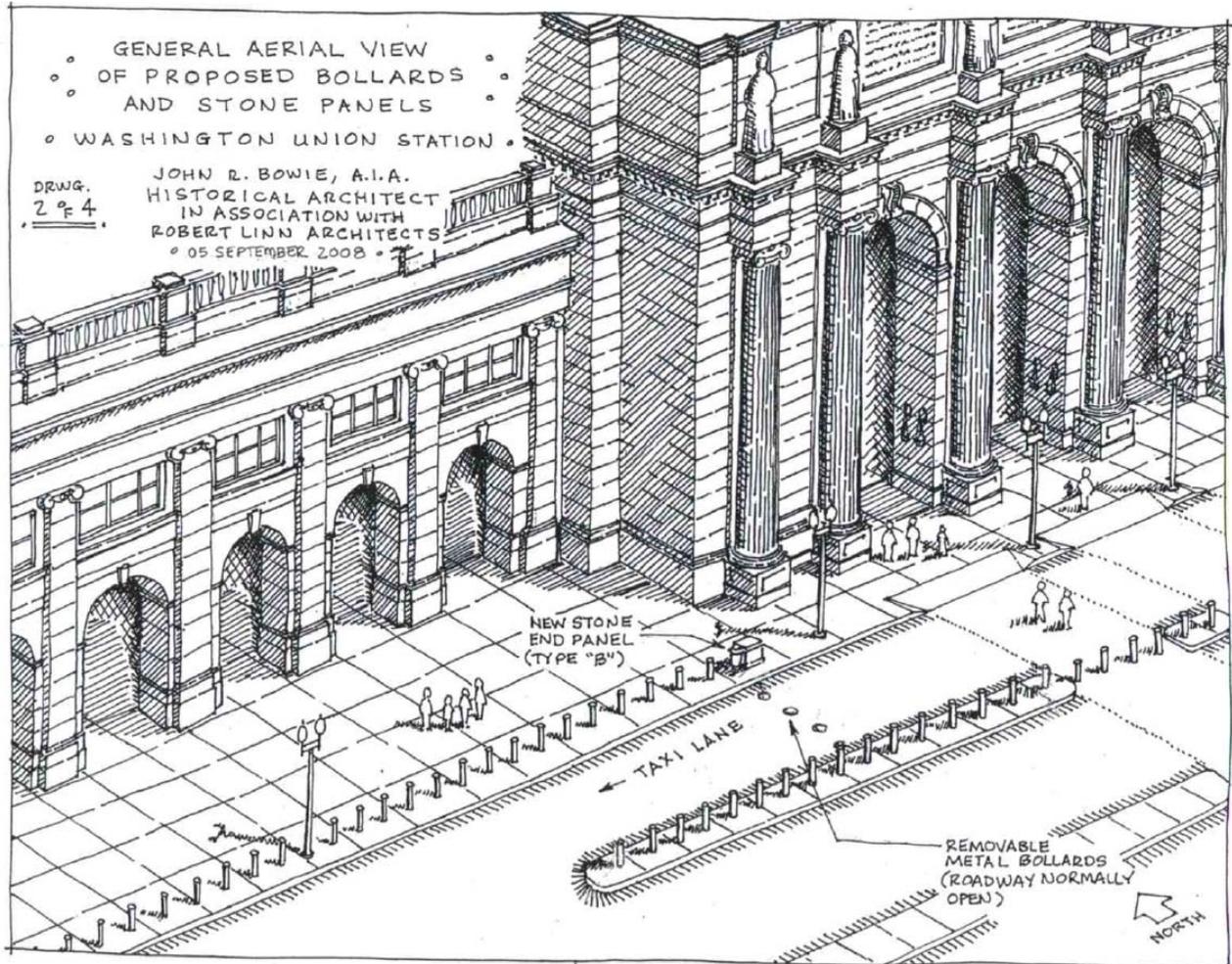


Site Plan, above.

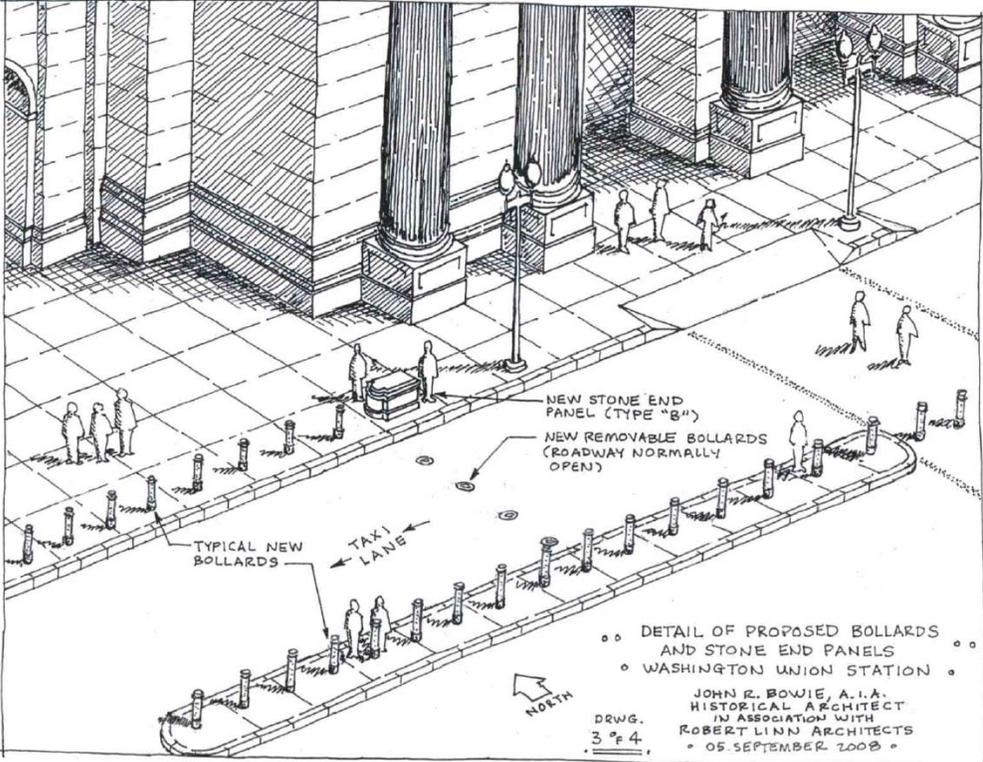
Detail, below, showing location of bollard line at southwest corner of station, near Metrorail escalator. Fixed bollards are set in from southeast and southwest corners of the station sidewalk curb. Bollard spacing is 5'2" in the south opening of the portico and 5'8" in the west opening of the portico.



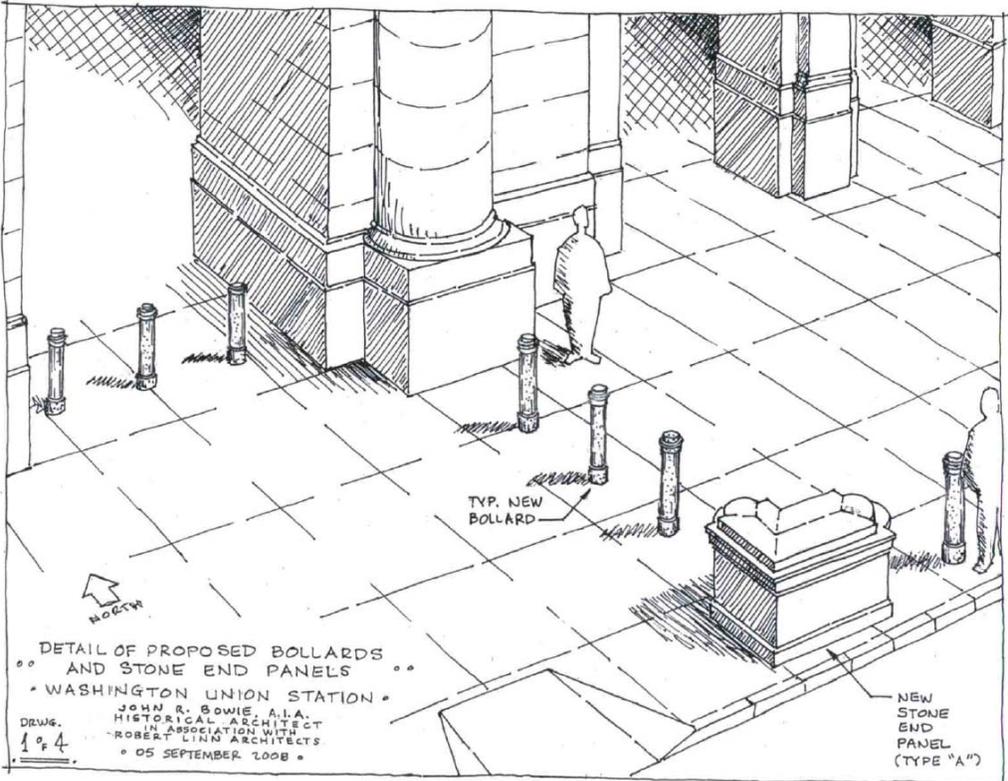
The above site plan is a composition of the plans by the applicants for perimeter security at Union Station and by the District Department of Transportation (DDOT) and the National Park Service for the reconfiguration of Columbus plaza, which the Commission will review shortly. The bollard line can be seen along the curb of the station sidewalk, which will be expanded six feet to the south. The Commission will review the Columbus Plaza soon. The principal change is the removal of the traffic lane through the middle of the plaza landscape. DDOT will manage the simultaneous construction of both projects.



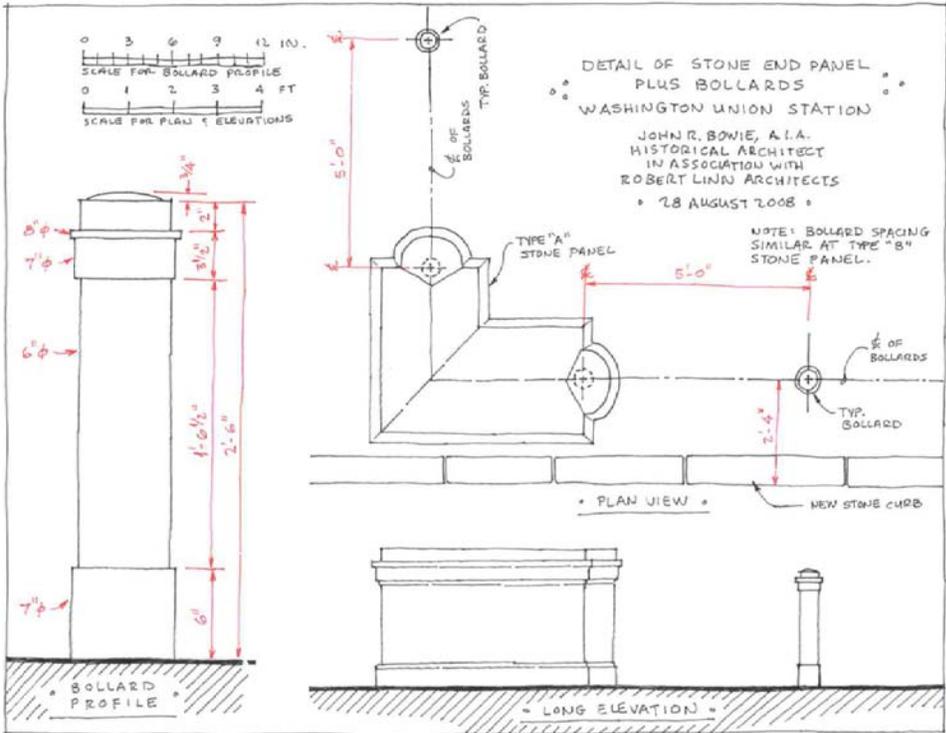
Detail: bollard line at curb of extended sidewalk in front of Union Station. Bollard line in front of main entrance is moved to the median between the first and second traffic lanes. The four removable bollards across the first (taxi) lane at either end will normally not be installed, allowing regular access by taxis and passengers. In certain security conditions, the bollards would be installed and the taxi lane moved to the second traffic lane.



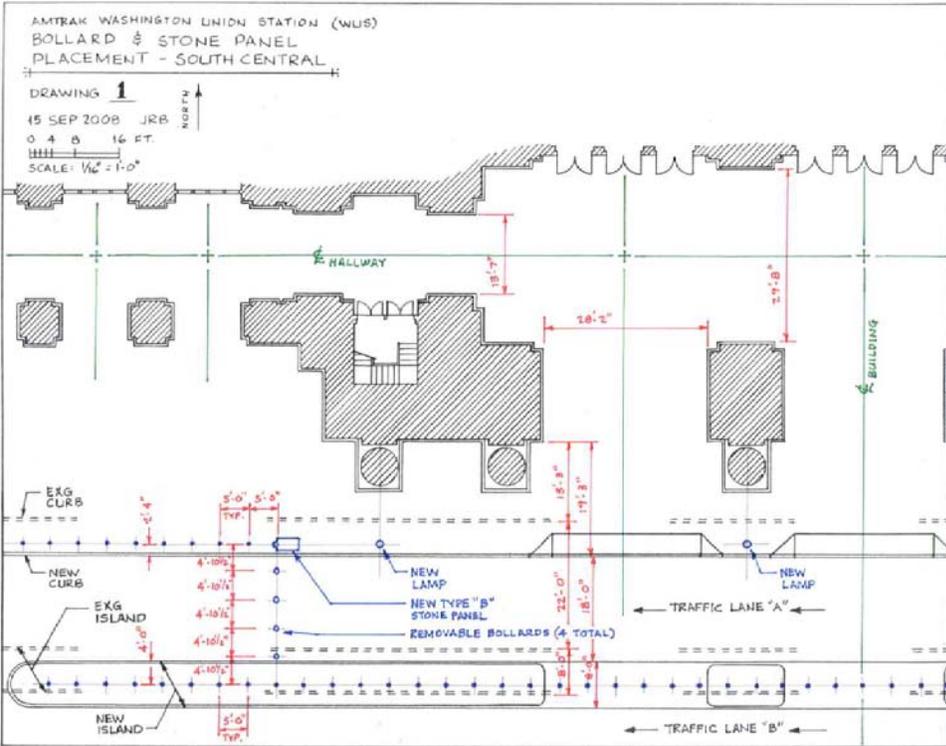
Detail: bollard line and hardened granite element at station curb and on median



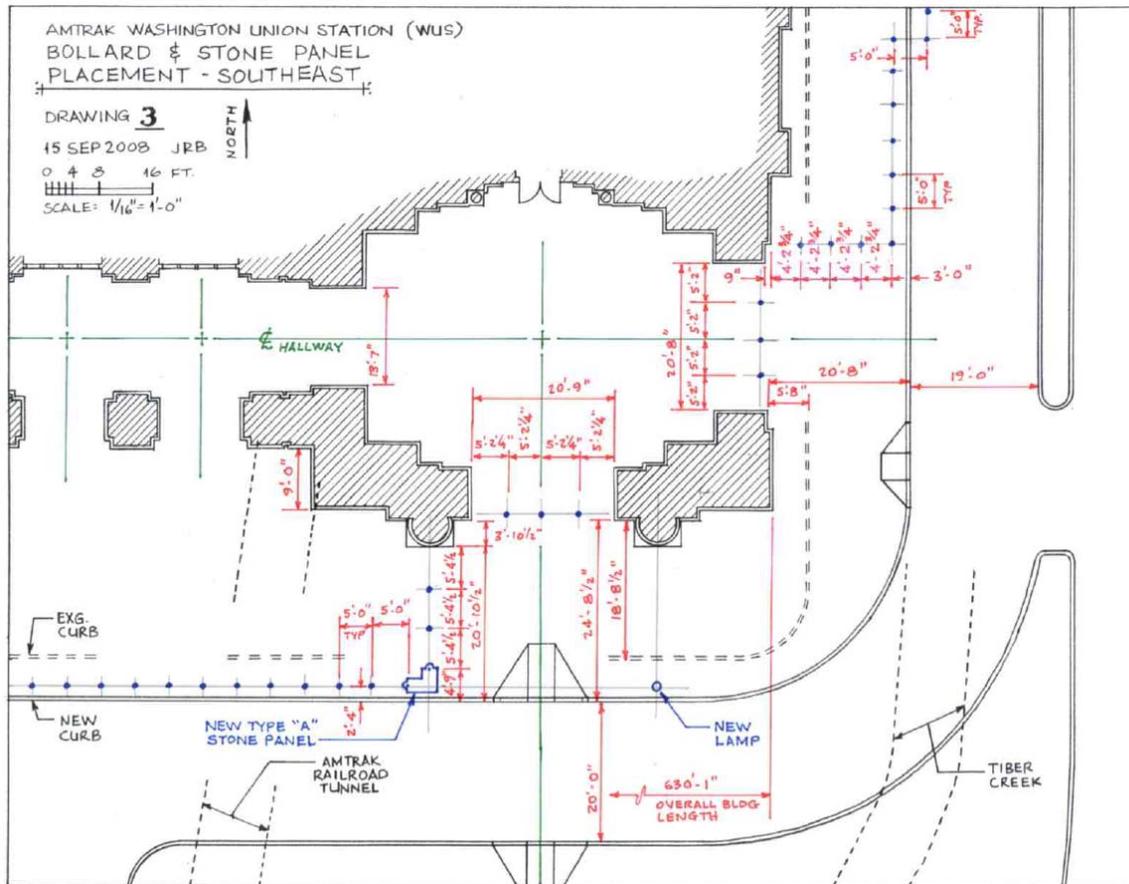
Detail: Bollards in the west portico—the location of the Union Station Metrostation Entrance--measure 5', 5'2", or 5'8" on center.



Detail: proposed bollard (30" high; 6" in diameter) and hardened element (36" high).



Plan detail: bollards spaced 5-feet on center across front of station. Bollard line at front entrance moved to median between first two traffic lanes. Removable bollards (four) across both ends of taxi lane will normally not be installed.



Detail: The dimensions and conditions at the east and west of the arcade are not identical. The arched opening at the southernmost opening on the east façade allows for bollard spacing of 5'2" on center. This is the primary pedestrian path from the Capitol Hill neighborhood for those entering Union Station or the Union Station Metrostation. The dotted line on the sidewalk indicates that the sidewalk will be expanded fifteen feet in width.

PROJECT ANALYSIS

Staff recommends approval of the preliminary and final site development plans for the design and location of perimeter security at Union Station, following review of the site development plans, the security assessment conducted by AMTRAK, the Environmental Assessment conducted by FRA, and the Section 106 Memorandum of Agreement (executed by FRA, the D.C. State Historic Preservation Office, and the USRC). The staff commends the applicants for proposing a balanced security approach and design that, in the staff's view, balance the security needs of the station, its historic significance and setting, and the accommodation of the thousands of pedestrians and passengers who enter the station or pass by it every day.

The proposed placement of a perimeter security barrier in front of this prominent, historic, and well-trafficked site has been the subject of review and consultation by the applicants, staff, other federal and District of Columbia agencies and parties for more than one year. The staff accepted the findings of the security assessment conducted by AMTRAK that concluded that Washington Union Station was a possible target (second among stations nationwide) given its location, visibility, prominence, visitation, symbolic value, and type of facility. The staff also accepted technical analysis conducted by the Lawrence Livermore Laboratory. These were thorough and compelling. The proposed physical barrier is part of a holistic operational and physical security approach that responds to the conclusions of the analyses, and that minimizes the functional and aesthetic effects.

The staff considered modes of access and movement to and through the site in reviewing the proposal: pedestrians walking across and through the site, including Metro customers; train passengers; taxis driving in the curbside lane; and taxi passengers alighting or waiting at the curb. The use of wider than usual spacing of the bollards at the front of the station—five feet on center in most locations, with some spacing exceeding that—has maximized the space allowance for train passengers with luggage, cyclists using the adjacent planned bicycle transfer station, and pedestrians crossing the site toward other destinations.

The 5-foot-on-center spacing and the 30-inch bollard height are the standards developed and tested for medium-level security barriers by the Smithsonian Institution and approved for installation at several of its buildings by the Commission. The Union Station submission meets or exceeds this standard for bollard height and spacing at almost every location in the arcade. It allows for freer pedestrian access as compared with most other proposals the Commission has reviewed.

A major step forward in the development of the design was moving the bollard line away from the curb at the monumental front entrance portico of the station. This proposed barrier location was a significant concern for staff and others, including the applicants. By moving the bollard line to the median between the first and second vehicle lanes, the bollards are set approximately 25 feet away from the curb and the normal flow of both taxis and passengers at the front entrance of the station remains unimpeded. The removable bollards across the taxi lane will normally not be installed. (In cases of emergency, the line of taxi cabs will be diverted to the second vehicle lane, and police will divert incoming Massachusetts Avenue traffic away from the station.) Other operational measures will also be taken.

The design and location of the security elements were reviewed and modified during consultation among agency representatives, including coordination with the proposal for the reconfiguration of Columbus Plaza, which will be seen by the Commission at an upcoming meeting. The Columbus Plaza project is an initiative of the District Department of Transportation to implement significant improvements to vehicular and pedestrian movement at Union Station, and of the National Park Service, to rehabilitate the historic plaza within a new larger plaza that will eliminate the interior traffic lane within the plaza landscape. The applicants have informed the staff that it is likely that the two projects will be combined and constructed together once they are reviewed and approved.

An earlier iteration of the design (not seen by the Commission) featured bollards configured into planting beds (in front of the two restaurant sidewalk cafes). The Commission of Fine Arts commented at its July 2008 meeting that the configuration was too informal and did not allow sufficient movement across the curb and into the arcade from those angles. The current design reflects both the greater formality and the unrestricted pedestrian movement strongly recommended by CFA. This configuration was endorsed at CFA's September 18, 2008 meeting.

The inset bollard lines at the southeast and southwest corners of the station—aligning the bollards with the piers at the ends of the arcade—are intended to minimize the visibility of the bollards from Columbus Plaza and to avoid conflicts with sloped sidewalk ramps at the crosswalks and with pedestrians approaching from different directions toward the corners.

The proposed design of the bollard itself is suitable for the formal environs but not as overtly classical as the historic rostral columns at the station. The 30-inch bollards will be painted black. The four neoclassical granite elements, used as turning points in the bollard line at prominent points in the station in elevation and plan, are features suggested by the Commission of Fine Arts. They are 36 inches in height. A palette of granite samples was studied at the site before the selection was made.

The Executive Director made a finding of no significant impact (FONSI) on September 26, 2008, based in part on design improvements made during the EA process. The requirements of Section 106 of the National Historic Preservation Act were completed by the Federal Railroad Administration with the execution of a Memorandum of Agreement acknowledging the adverse effect of the proposed bollard line, minimized by design development and mitigated by identification and documentation of original features of the station platforms.

CONFORMANCE

Comprehensive Plan for the National Capital

The following are the applicable policies in the *Preservation and Historic Features Element* of the Comprehensive Plan.

National Capital Image

1. Express the dignity befitting the image of the federal government in the national capital.
5. Protect and enhance the vistas and views, both natural and designed, that are an integral part of the national capital's image.

Stewardship of Historic Properties

5. Identify and protect both the significant historic design integrity and the use of historic landscapes and open spaces.

The Historic Plan of Washington, DC

2. Promote continuity in the historic design framework of the nation's capital by protecting and enhancing the elements, views, and principles of the L'Enfant Plan.

5. Protect the reservations that contain historic landscapes and features from incompatible changes or incursions.

The staff finds that the proposal is consistent with the policies to the extent possible, with the visual effects minimized through design consultation and the development of a Memorandum of Agreement. The project goal of designing perimeter security to be as compatible with the historic station and setting as possible has been pursued through wider bollard spacing, the relocation of the bollard line away from the monumental central portico, and the design of formal security elements to be used in conjunction with the bollards.

National Capital Urban Design and Security Plan

Physical security measures are being proposed or have been implemented at railroad stations operated by AMTRAK in other cities. AMTRAK's security assessment concludes that Washington Union Station requires a physical barrier in order to maintain a distance between the station entrance and vehicles. The submission before the Commission concerns the public front and sides of Union Station. Other physical and operational measures inside the station have been undertaken.

The proposed placement of a perimeter security barrier in front of this prominent, historic, and well-trafficked site has been the subject of review and consultation by the applicants, staff, other federal and District of Columbia agencies and parties for more than one year. The staff accepted the findings of the security assessment conducted by AMTRAK that concluded that Washington Union Station was a possible target (second among stations nationwide) given its location, visibility, prominence, visitation, symbolic value, and type of facility. The staff also accepted technical analysis conducted by the Lawrence Livermore Laboratory.

The proposed security barrier for Union Station reflects treatment options discussed in the *Urban Design and Security Plan* and the Commission's requirements contained in its supplemental Submission Guidelines for Perimeter Security Projects. These include the use of bollards to provide pedestrian access at heavily-trafficked sites and to minimize physical and functional impacts, the use of other designed security elements interspersed with bollards where possible for improved visual effect, and the best possible integration of the inserted bollard design with the character of the building and site, especially with historically and architecturally significant sites.

The proposed height and spacing of the bollards (30 inches high; 6-inch-in-diameter bollards spaced principally at 5 feet on center but with wider spacing in some locations) reflects the applicants' commitment to minimize impacts to the historic building and site.

National Environmental Policy Act (NEPA)

The Commission's review of the applicants' plans for Union Station Perimeter Security is governed by NCPC's Environmental Policy and Procedures, in coordination with the National Environmental Policy Act (NEPA).

The Executive Director issued a FONSI (Finding of No Significant Impact) on September 26, 2008, based on adoption of the prepared Environmental Assessment (EA) issued by the FRA for the project. NCPC staff's review of the document concluded that the analysis was sufficient and demonstrated no significant environmental impacts from the planned actions examined by that analysis. The preferred alternative of that EA analysis was bollard and reinforced elements inside the curb line along the front and sides of the station, with the bollard line extended outward the median between the first and second vehicle lanes in front of the station's entrance.

The conclusion of the environmental review considers the minimization and mitigation efforts established under the Memorandum of Agreement, pursuant to Section 106 of the National Historic Preservation Act, which established important provisions to the proposal to minimize the adverse effects to the historic resources. The MOA determined that the best location for the bollard line in front of the station entrance was along the median between the first two vehicle lanes.

Staff has reviewed FRA's NEPA documentation, including its FONSI and finds that the impact has been minimized as much as possible through design and placement of the barrier and the study of elements and materials that will constitute the barrier. Visual analysis by consulting parties at the site and possible design solutions were discussed during development of the submission and the environmental documents. The location and nature of the visual and physical impact have been minimized to the extent possible through design development and Section 106 consultation.

The project will be combined with the Columbus Plaza reconstruction, under the management of the District Department of Transportation, since reconstruction of the station sidewalk curbs and traffic lanes in front of the station will need to occur concurrently.

National Historic Preservation Act (NHPA)

FRA executed a Memorandum of Agreement (MOA) with the District of Columbia State Historic Preservation Office and the Union Station Redevelopment Corporation. The adverse effect was minimized to the extent possible through development of the site design and location. In addition, mitigation was identified and agreed upon: the applicants will identify and document remaining historic fabric and features on the station platforms.

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed the current proposal for temporary barriers at its meeting on September 10, 2008. All agencies present coordinated the project with the exception of the General Services Administration, which questioned the accommodations for emergency evacuation of the station during the meeting. The applicants responded that the proposal accommodates this factor.

The Commission of Fine Arts

The Commission of Fine Arts reviewed an earlier concept design at its July 2008 meeting and approved the current submission as a revised concept at its September 18, 2008 meeting. Commissioners asked for further study of the design and placement of the light standards proposed for the station curb. If these design modifications are agreed upon following redesign by the applicants and further review by CFA, they will be submitted to NCPC for review as part of the forthcoming Columbus Plaza project.

District and Federal agencies

Ongoing coordination meetings with the project teams for Union Station security and for Columbus Plaza reconstruction have involved District and federal agencies for the past several years as the design and environmental and historic preservation analysis of both projects was developed. DDOT will manage the simultaneous construction of both projects.

A coordination meeting for the Union Station perimeter security project was held on February 8, 2008 at the offices of the USRC. The following agencies were represented, in addition to FRA, AMTRAK, and USRC: NCPC, NPS, GSA, CFA, US Courts, DC Office of Planning (DCOP), District Department of Transportation (DDOT), DCSHPO, Architect of the Capitol, US Capitol Police, Smithsonian Institution.

Comments received during and after the public meeting included comments on the design standards and placement of the bollards, the need for fuller discussion in the EA of alternatives considered, review of proposal in relation to emergency egress from building, the need to extend the line of bollards in the median between the first two traffic lanes to reduce the effective vehicle opening, and the mitigation of construction impacts through the simultaneous construction of the Union Station perimeter security and the reconstruction of Columbus Plaza.

The Ward 6 Planner for DCOP attended the February 8, 2008 meeting and followed up with an email recommending that Advisory Neighborhood Commission 6C and the Stanton Park Neighborhood Association be added to the consultation list. Other organizations invited to participate were the DC Preservation League, the Committee of 100 on the Federal City, the Capitol Hill Restoration Society, and the Historical Society of Washington, DC.

