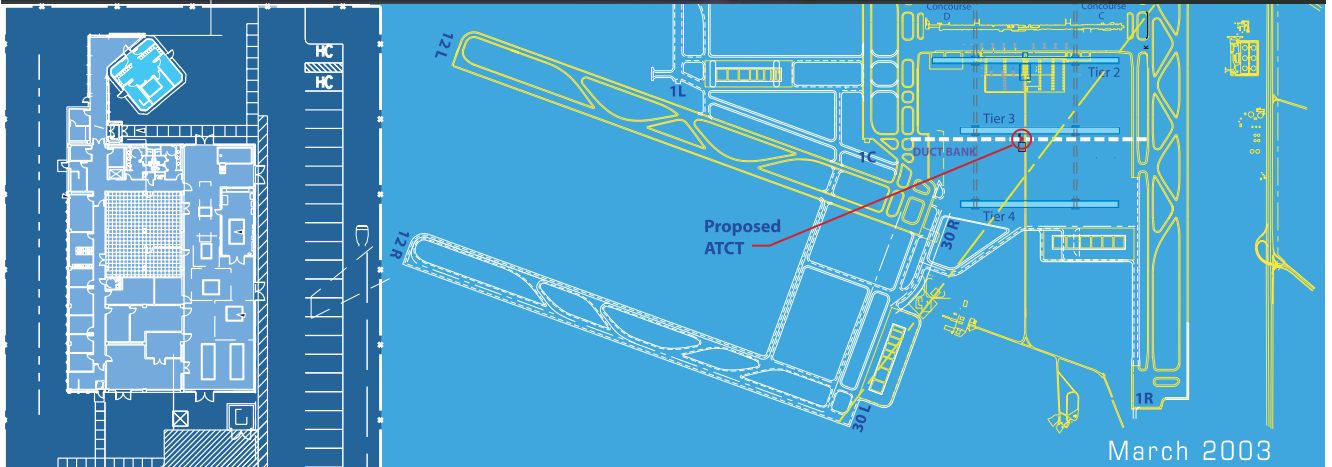


WASHINGTON DULLES INTERNATIONAL AIRPORT



PROPOSED ATCT FACILITY

FINAL ENVIRONMENTAL ASSESSMENT



This comprehensive Environmental Assessment becomes a Federal Document when evaluated and signed by the responsible FAA official.

Richard A. [Signature]
Responsible FAA Official
4/1/03
Date



Prepared for
METROPOLITAN WASHINGTON AIRPORTS AUTHORITY
by

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**FEDERAL AVIATION
ADMINISTRATION
EASTERN REGION**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI)
&
RECORD OF DECISION (ROD)**

For the

Proposed New Airport Traffic Control Tower

Located At

**Washington Dulles International Airport
Fairfax and Loudoun Counties, Virginia**

May 2003

LOCATION

Washington Dulles International Airport
Fairfax and Loudoun Counties, Virginia

INTRODUCTION AND PROPOSED FEDERAL ACTION

This Finding of No Significant Impact/Record of Decision (FONSI/ROD) sets out the Federal Aviation Administration (FAA) consideration of aviation safety factors associated with the proposed construction and operation of an Airport Traffic Control Tower (ATCT), base building, support buildings, site utilities, access road, on-site parking lot, and FAA control communications connections to airfield lights and navigational aids. In addition, the FAA considered the environmental impacts and the technical needs for each element of the project. The proposed base building will encompass approximately 16,700 square feet, the tower another 1,200 square feet and the entire site including parking will total approximately 2 acres.

An Environmental Assessment (EA) was prepared to evaluate the environmental consequences of the proposed construction and operation of the ATCT facility. The environmental review process was conducted fully in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 as amended and DOT/FAA Order 1050.1D dated 12/5/86. The Record Of Decision (ROD) was prepared in accordance with Council on Environmental Quality (CEQ) regulations, 40 CFR 1505.2. The EA has been reviewed by the FAA and is made a part of this FONSI/ROD.

PROJECT PURPOSE AND NEED

The FAA recognized the need to relocate and replace the existing ATCT. The current ATCT was commissioned in 1962 and has reached its operational and functional capacity. The present facility cannot accommodate the equipment and personnel required to efficiently control the Airport's current volume of air traffic. If the current tower remains in place, a potential for airport traffic control safety issues will exist and potentially exacerbate over time. Physically, other problems are present in the current ATCT, including: deficient mechanical appurtenances (e.g. plumbing, heating and ventilation), asbestos-containing floor tiles, and ambient light glare from increased development at the tower base. The current ATCT also does not meet Americans with Disabilities Act (ADA) requirements.

The proposed project is intended to resolve the deficiencies of the existing ATCT. The new ATCT would facilitate the installation of more modern and required air traffic control equipment, enhance visibility of controlled surfaces improve the flow of information between aircraft and the ATCT, and provide adequate space and an enhanced indoor environmental for FAA personnel working in the tower. Thus, the proposed action would provide a modern, operationally efficient ATCT that would insure the safeties of airport traffic control. The new ATCT would also meet the building codes and OSHA standards.

ALTERNATIVES

Modification of the existing tower was not considered viable because of space limitations and because physical expansion was contrary to historic preservation requirements. Therefore, the Metropolitan Washington Airports Authority (the Authority) commissioned an Airport Traffic Control Tower (ATCT) Siting Study to determine what site and height for a new ATCT were optimal. The ATCT siting study was accomplished in accordance with FAA Order 6480.4 “Airport Traffic Control Tower Siting Criteria”. The Study considered criteria including maximum visibility of airborne traffic patterns, complete visibility of airport surfaces utilized for movement of aircraft, and depth perception to all surfaces to be controlled. The Study also examined the tower requirements considering future airfield and terminal development. Ranges of possible tower locations were considered. Originally nine sites were investigated. The Authority and the FAA determined that Site 1 best satisfied the siting criteria, and that Site 1 was the preferred site for the Proposed ATCT. Thus, the Proposed Action was to build and operate a new ATCT at the Site 1 location.

Based on the Site 1 Proposed ATCT location, alternative communication ductbank and utility corridor locations were analyzed. In general the communications ductbank and utility corridor locations were screened using three criteria: avoid future utilities that will service a future Tier 3 concourse, minimize wetland impacts, and connect to existing facilities. Based on these criteria the most favorable communication ductbank and utility corridor locations were included in the Proposed Action.

IMPACT ANALYSIS

The FAA has required an EA for the proposed ATCT and associated facilities as a reasonably foreseeable future development option. Such assessment was accomplished. Based on the analysis and necessary mitigation, any impacts associated with this development are not expected to have any significant adverse impacts on or in the vicinity of the airport.

The attached EA addresses the effects of the proposed project on the human and natural environment, and is made a part of this Finding/Decision. The results of the analysis are summarized as follows:

CONSTRUCTION IMPACTS

Specific effects during construction which may create adverse environmental impacts include: noise from construction equipment, noise and dust from delivery of materials and excavation equipment, air pollution from burning debris, and water pollution from erosion. Construction impacts are typically of short duration, associated with actual construction activities, and can be mitigated during the construction period with careful planning and standard erosion and sediment controls.

CUMULATIVE IMPACTS

The only cumulative impact area of concern was a potential impact to air quality due to the level of emissions from the construction of the Tier 2 development (a new Midfield Concourse known as Tier 2, and an Automated People Mover System, as well as utility and other support facilities) that may overlap construction of the ATCT. The combined construction equipment emissions from the two projects will not exceed the budgets for nitrogen oxides (NOx) and volatile organic compounds (VOC) included in the State Implementation Plan (SIP) for IAD.

HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL AND CULTURAL RESOURCES

Formal consultation with the Virginia State Historic Preservation Officer (SHPO) regarding the nature of the effects of the proposed ATCT and related improvements on cultural, historical, and archaeological resources at Washington Dulles International Airport (IAD) was completed. The Virginia SHPO has concurred with the terms in a Conditional Determination of No Adverse Effect. The conditions include:

- If the final design of the proposed ATCT and related improvements involve ground disturbance in locations other than the midfield area between the two existing runways, the Authority will conduct an archaeological assessment and provide the Virginia SHPO with the results.
- The results of the visual viewshed analysis contained within the EA will be presented to the Virginia SHPO. (Please note the results of the viewshed analysis have been presented to the Virginia SHPO as of the writing of this FONSI/ROD).
- Summary design documentation for the proposed ATCT will be made available to the Virginia SHPO for their review and comment. The SHPO has already seen and considered the 30% architectural drawings, which assisted in their granting of a Conditional Determination of No Adverse Effect. Should the final design include significant new design elements, the Authority will enter into additional agency consultation to assess these effects.
- The existing ATCT will be decommissioned. However, the existing ATCT structure itself will remain in place due to its historical significance. There are no plans to use the decommissioned tower for other purposes due to limiting conditions associated with means of egress and ADA requirements. The Authority will continue to maintain the decommissioned ATCT.
- Airport Surface Detection Equipment (ASDE) radar is located on top of the existing tower. When the existing ATCT is decommissioned, the original architectural design of the tower with the radar enclosure must be restored to comply with prior agreements under Section 106 of the National Historic Preservation Act.

The National Capital Planning Commission (NCPC) also commented on the preliminary and final site and building plans. In a March 18, 2003 letter from the NCPC to the Metropolitan Washington Airport Authority, the NCPC recommends that “the Authority

(MWAA) fully maintain the vacated ATCT and carefully consider the potential reuse of that terminal area...The intent of the recommendation is that the ATCT structure of the Main terminal be fully sustained and operated as active space.”

LIGHT EMISSIONS AND VISUAL IMPACTS

Because of the physical size and lighting requirements of the proposed ATCT, light emissions and visual impacts may occur.

The proposed construction will take place within the existing configuration of the airport, away from residences. Also, the existing buffer zone of vegetation around the Airport will protect any surrounding communities from light interference during and after construction.

In terms of visual impacts, the proposed location for the ATCT (Site 1) is in the vicinity of a proposed Dulles Historic District, which will include all airport portions of the original 1958 Saarinen Master Plan. These areas include the existing runways, the Dulles access highway, and the existing terminal areas. Also, the proposed ATCT location is within 2.25 miles of the Sully Plantation Historic District. A view-shed analysis was completed for the EA and it was concluded that the proposed ATCT would have minimal impact on the proposed Dulles historic district. It was also concluded that the proposed ATCT will be barely visible from the Sully Plantation, but will not impact the natural setting of the Sully Plantation.

Careful consideration will be given to the design of the ATCT as to minimize visual effects. A formal consultation with the SHPO has occurred regarding any potential visual impacts to historical, architectural, archaeological, and cultural resources. The SHPO concurred with a Conditional Determination of No Adverse effect. The National Capital Planning Commission (NCPC) was also given an opportunity to provide comments regarding the planned ATCT. In the March 18, 2003 letter from the NCPC to the Metropolitan Washington Airport Authority, the NCPC provided “favorable comment to the preliminary and final site and building plans”.

WATER QUALITY

Effects to water quality include an increase in stormwater runoff from increased impervious surface area. These effects will be managed using BMPs and stormwater detention ponds.

WETLAND IMPACTS

Wetlands will be altered as a result of the construction of the ATCT and associated facilities. The Joint Permit Application (JPA) submitted to the Virginia Department of Environmental Quality (DEQ), US Army Corps of Engineers (USACE), and other regulatory agencies has been approved. The future loss of wetlands was mitigated through a wetland banking program that will result in no net loss of wetlands. Additional

temporary wetland impacts due to communication ductbanks and utility corridors are permitted per Nationwide Permit 12, Utility Line Activities. Approximately 1100 feet of utility lines will be located in the waters of the U.S.; therefore, the District Engineer will be notified by a preconstruction notification. Permission to impact these wetlands will be acquired prior to initiation of construction activities.

OTHER IMPACT CATEGORIES

The potential impacts of the proposed federal action on air quality, coastal resources, compatible land use, DOT Section 303(c) (formerly Section 4(f)) lands, electronic emissions, farmlands, fish/wildlife and plants, floodplains, hazardous materials and solid waste, natural resources and energy supply, noise, secondary impacts, socioeconomic impacts/environmental justice and, wild and scenic rivers have been reviewed. It is the FAA's finding that the proposed action, with mitigation measures noted below, would not have any significant effect on any of the noted categories. Detailed assessment of these categories may be found in the appropriate sections of the EA.

PUBLIC/AGENCY INVOLVEMENT

Chapter 5 of the EA contains a list of the various federal, state, and local agencies contacted to review the proposed project. Response letters from those organizations can be found in Appendix D. Comments from these agencies have been incorporated into the EA. In addition, the EA was made available for public review by placing copies of the document in seven public libraries and advertising these locations in two newspapers. No comments were received as a result of the public review.

MITIGATION MEASURES

Because the Proposed action does not involve any long-term significant environmental impacts, mitigation measures are unnecessary for most resources. As discussed above, there may be some minor and/or temporary impacts. However, these impacts would be minimized through the implementation of the already identified mitigation measures including sediment and erosion control devices.

POLICY CONSIDERATIONS

Inconsideration of alternatives, the FAA has been mindful of its statutory mandates to (1) ensure that safety is given the highest priority in providing for a safe and efficient airway system (49 U.S.C 44501 (b)(4)(A)), and (2) to make long range plans and policy for the orderly serve the interests of, civil aeronautics and the national defense (49 U.S.C 44501(a)). FAA's policy is to provide precision air traffic control systems at all airports meeting established criteria to provide enhance safety and state of the art technology in airport operations. Installation of the ATCT facility would enable the FAA to provide this improvement.

AGENCY ACTIONS

The FAA recognizes its responsibility to enhance, develop and improve the safety, efficiency, and utility of the national air transportation system, including the establishment of airport traffic and navigational facilities at and around airports. The FAA's actions involved in this proposal include the following:

- a. Pursuant to 49 U.S.C. 40103 (b) (1), the FAA must ensure the safe and efficient use of navigable airspace. The constructions of the ATCT facilities are designed to meet this requirement.
- b. Pursuant to 49 U.S.C. 44502, the FAA is authorized to establish and improve air navigational facilities wherever necessary. The constructions of the ATCT facilities are designed to meet these criteria.

AGENCY FINDINGS

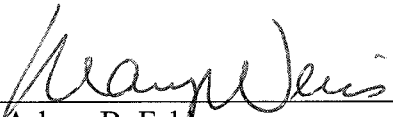
- a. This project will enhance safety and improve airport operations for the use of the proposed new ATCT.
- b. In establishing this facility, the FAA is committed to minimizing any possible impact on the surrounding communities by locating the facility near the existing airport facilities and away from residential areas.
- c. Based on the EA prepared for this project, a FONSI/ROD was issued. Both the EA report and the FONSI/ROD are hereby incorporated into this decision. After careful and thorough consideration of the facts contained in the FONSI/ROD and in the attached EA, the undersigned concurs that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in section 101 (a) of the National Environmental Policy Act (NEPA) 42 U.S.C §4331(a) and that it will not significantly affect the quality of the human environment or otherwise include and condition requiring consultation pursuant to section 102(2)(C) of NEPA, 42 U.S.C §4332(2)(c). Further environmental study is not required.

DECISIONS AND ORDERS

Recognizing these responsibilities, we have carefully considered these objectives in relation to aeronautical and environmental factors at Washington Dulles International Airport, and utilized the environmental process to make a more informed decision. After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed federal action ensures the safe and efficient use of navigable airspace consistent with the responsibility and authority granted to the Administrator pursuant to 49 U.S.C. 40103 (Part A). The undersigned further finds that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in Section 101 (a) of the National Environmental Policy Act (NEPA) and that it will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102 (2) (C) of NEPA. Based on the

above analysis, the FAA determined that Alternative 1, construction of new ATCT facilities for Washington Dulles International Airport, is both technically and environmentally, the preferred alternative.

Having carefully considered the aviation safety and operational objectives of the proposed action, as well as being properly advised as to the anticipated environmental impacts of the proposal, under the authority delegated to me by the Administrator of the FAA, I find that the project is reasonably supported, and I, therefore, direct this action to be implemented.

Approved: 
Arlene B. Feldman
Regional Administrator
FAA Eastern Region

Date: 5/14/03

Disapproved: _____
Arlene B. Feldman
Regional Administrator
FAA Eastern Region

Date: _____

This decision is taken pursuant to 49 U.S.C. 40101 et seq. (Part A) and constitutes a final order of the Administrator that is subject to review by the Court of Appeals of the United States in accordance with the provisions of 49 U.S.C Section 46110.

EXECUTIVE SUMMARY

The Metropolitan Washington Airports Authority (the Authority) is proposing to construct a new Airport Traffic Control Tower (ATCT) at Washington Dulles International Airport (IAD). The location of the Airport is shown in **Figure ES-1** and the location of the proposed ATCT is shown in **Figure ES-2**. The purpose of this Environmental Assessment (EA) is to evaluate existing conditions and environmental effects for a new ATCT. The Proposed Action includes the site development, site utilities, access roads, the actual tower and base building, support buildings, and all necessary Federal Aviation Administration (FAA) control communications connections to airfield lights and navigational aids (NAVAIDS). The layout plan for the proposed ATCT is depicted in **Figure ES-3** and a rendering of the proposed ATCT is shown in **Figure ES-4**.

In this EA, the environmental consequences or effects of the Proposed Action and No Action alternatives were evaluated. The following impact categories were evaluated: Air Quality; Coastal Resources; Compatible Land Use; Community Involvement; Construction Impacts; Cumulative Impacts; Department of Transportation Act Section 303(c) (formerly Section 4(f)); Electronic Emissions; Farmland; Fish, Wildlife and Plants; Floodplains and Floodways; Hazardous Materials and Solid Waste; Historical, Architectural, Archeological and Cultural Resources; Light Emissions and Visual Impacts; Natural Resources and Energy Supply; Noise; Secondary (Induced) Impacts; Socioeconomic Impacts; Water Quality; and Wetlands and Wild and Scenic Rivers.

This EA has been prepared to ensure compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, the regulations of the President's Council on Environmental Quality (CEQ) for NEPA compliance, and Federal Aviation Administration (FAA) Orders 1050.1D (*Policies and Procedures for Considering Environmental Impacts*) and 5050.4A (*Airport Environmental Handbook*).

ES.1 Need for Proposed Action. The present day Airport Traffic Control Tower (ATCT) at Washington Dulles International Airport (IAD) cannot accommodate the personnel or equipment required to efficiently control the Airport's current volume of air traffic. To safely serve the increased air traffic, more controllers and equipment are required and thus a larger facility is necessary. Also, needed technological advances available today can not be accommodated in the limited space of the existing tower cab.

ES.2 Environmental Consequences of the Proposed Action. A summary of environmental effects is provided in **Table ES.1**.

Overall, implementation of the proposed ATCT development at IAD is not expected to have a significant impact on the environment. Implementation of the Proposed Action is not expected to negatively affect: Air Quality; Coastal Resources; Compatible Land Use; Community Involvement; Department of Transportation Act Section 303(c) (formerly Section 4(f)); Electronic Emissions; Farmland; Fish, Wildlife and Plants; Floodplains and Floodways; Hazardous Materials and Solid Waste; Natural Resources and Energy Supply; Noise; Secondary (Induced) Impacts; Socioeconomic Impacts; Water Quality; Wetlands and Wild and Scenic Rivers.

Some effects to Historical, Architectural, Archeological and Cultural Resources, Light Emissions and Visual Impacts, Water Quality, and Wetlands are expected as a result of the Proposed Action. These environmental consequences, however, will be minor in nature, will be minimized through best management practices (BMPs), or will be mitigated. The environmental consequences are summarized below.

- Consultation with the Virginia State Historic Preservation Officer (SHPO) has been completed regarding the nature of the effects of the proposed ATCT and related improvements on cultural, historical, and archaeological resources at IAD. The Virginia SHPO (Department of Historic Resources) has concurred with the terms in a Conditional Determination of No Adverse Effect.
- The proposed tower is to be carefully designed to minimize visual effects upon and within the IAD historic district. The IAD historic district falls within the boundaries established by the 1958 Saarinen Master Plan and encompasses the existing runways, the Dulles Access Highway and the existing terminal areas. Therefore, the Proposed Action is not expected to have an adverse visual impact on the aesthetic integrity of the historic Airport or the Sully Plantation. Consultation with the SHPO has been completed. Consultation with the National Capitol Planning Commission (NCPC) has been initiated regarding the viewshed analysis and potential visual impacts on the Main Terminal and the Dulles Airport Access Highway. No comments were received from NCPC by the close of the comment period on the Draft EA.
- Effects to water quality include an increase in stormwater runoff from increased impervious surface area. These effects will be managed using BMPs and stormwater detention ponds.
- Wetlands will be altered as a result of implementation of the Proposed Action. The Joint Permit Application (JPA) submitted to the Virginia Department of Environmental Quality (DEQ), US Army Corps of Engineers (USACE), and other regulatory agencies has been approved. The future loss of wetlands was mitigated through a wetland banking program that will result in no net loss of wetlands. Additional temporary wetland impacts due to installation of communication ductbanks and utility corridors are permitted per Nationwide Permit 12, Utility Line Activities. Approximately 1100 feet of utility lines will be located in the waters of the U.S.; therefore, the District Engineer will be notified by a preconstruction notification. Permission to impact these wetlands will be acquired prior to initiation of construction activities.

ES.3 Construction Impacts. In addition to project-related environmental effects, temporary effects associated with construction activities are expected. The majority of construction-related impacts are expected to be temporary in nature, minimized by BMPs, and limited to the IAD property. Construction activities are expected to have a short-term positive impact on socioeconomic resources due to construction-related employment opportunities. Construction activities will have potential negative effects on Noise, and Water Quality. The potential environmental consequences related to construction activities are summarized below.

- There will be a short-term, temporary increase in localized noise levels in the vicinity of the project area during construction. All construction activities will take place on the IAD property, and residential properties will not be affected.
- Impacts to water quality include an increase in runoff from construction areas and potential erosion of disturbed soils and sedimentation into streams. These effects will be managed using BMPs, erosion control measures, and stormwater detention ponds.

ES.4 Cumulative Impacts. The only cumulative impact area of concern was the air quality due to the level of emissions from the construction of the Tier 2 concourse and related development¹ that will overlap construction of the ATCT. The combined construction equipment emissions from the two projects will not exceed the budgets for nitrogen oxides (NO_x) and volatile organic compounds (VOC) included in the State Implementation Plan (SIP) for IAD (Appendix C). These budgets are 0.75 tons/day NO_x and 0.11 tons/day VOC. Fugitive emissions during construction will be controlled through the use of BMPs.

The implementation of the Proposed Action is not expected to create negative cumulative effects. The Proposed Action comprises a small portion of the current and planned development activity in the Dulles region. Although the region could experience cumulative effects to air quality, water quality (stormwater runoff from increased impervious surface area), and habitat loss due to multiple ongoing roadway and development projects, the Proposed Action accounts for a small fraction of these effects and will not, when added to the effects of the other projects, cause otherwise insignificant impacts to exceed thresholds of significance.

¹ *Planned construction of a new Midfield Concourse known as Tier 2, and an Automated People Mover System, as well as utility and other support facilities. Portions of this development are on hold at this time.*

Table ES.1

SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Impact Category	Environmental Consequences
Air Quality	No Impact
Coastal Resources	No Impact
Compatible Land Use	No Impact
Community Involvement	No Impact
Construction Impacts	See Below
Cumulative Impacts	See Below
DOT Section 303 (4f)	No Impact
Electronic Emissions	No Impact
Farmlands	Not Applicable
Fish, Wildlife and Plants	No Impact
Floodplains and Floodways	No Impact
Hazardous Materials and Solid Waste	No Impact
Historic, Architectural, Archaeological, and Cultural Resources	Potential Impacts Mitigated through consultation with SHPO and NCPC
Light Emissions and Visual Impacts	Potential Impacts Mitigated through consultation with SHPO and NCPC
Natural Resources and Energy Supply	No Impact
Noise	No Impact
Secondary (Induced) Impacts	No Impact
Socioeconomic Impacts	No Impact
Water Quality	Increased runoff managed by stormwater Best Management Practices (BMPs)
Wetlands	Impact mitigated by wetland banking. Temporarily impacted wetlands will be restored.
Wild and Scenic Rivers	Not Applicable

Figure ES-1

IAD General Location Map

WASHINGTON DULLES INTERNATIONAL AIRPORT

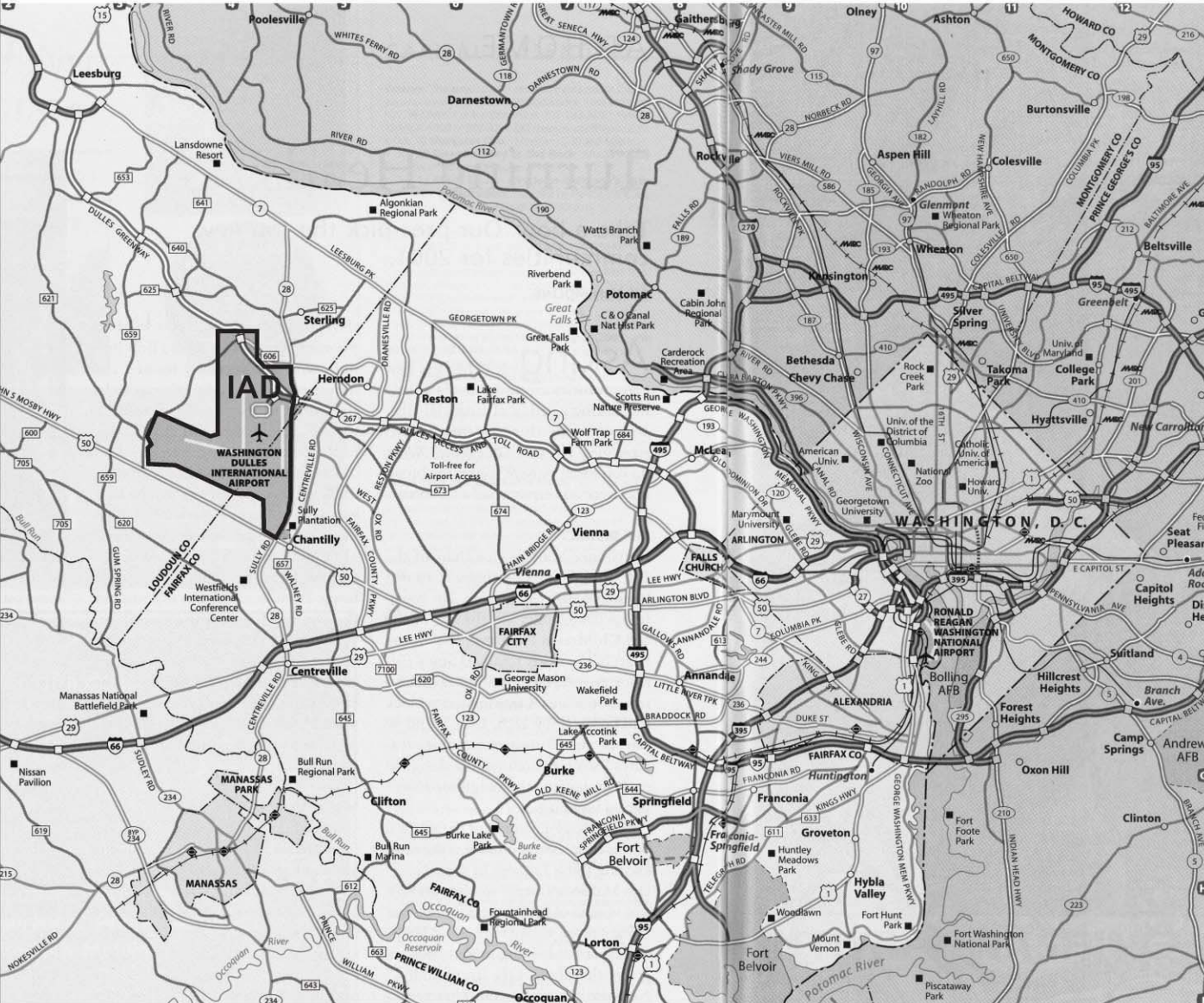


Figure ES-2

Location of Proposed ATCT

WASHINGTON DULLES INTERNATIONAL AIRPORT

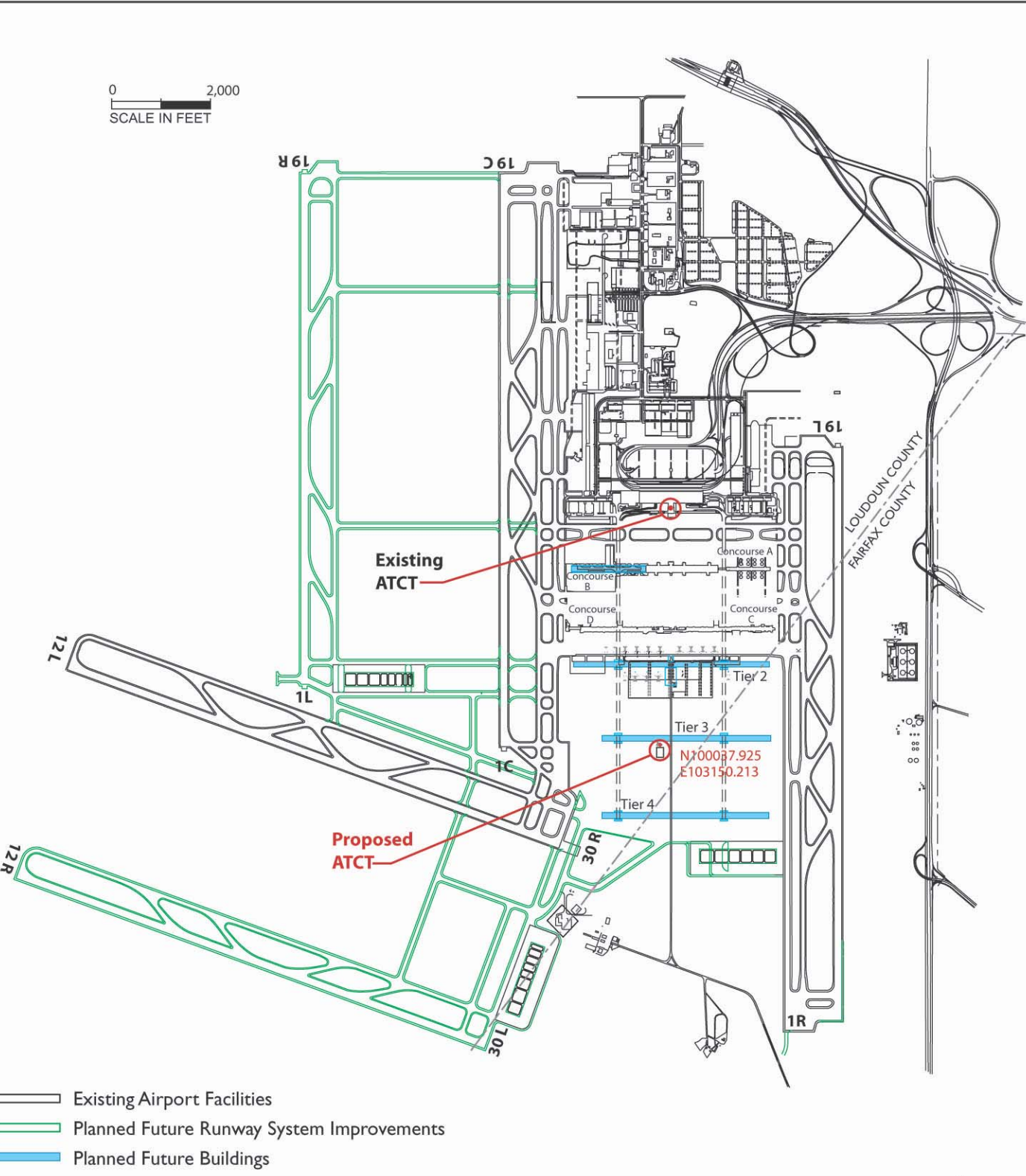
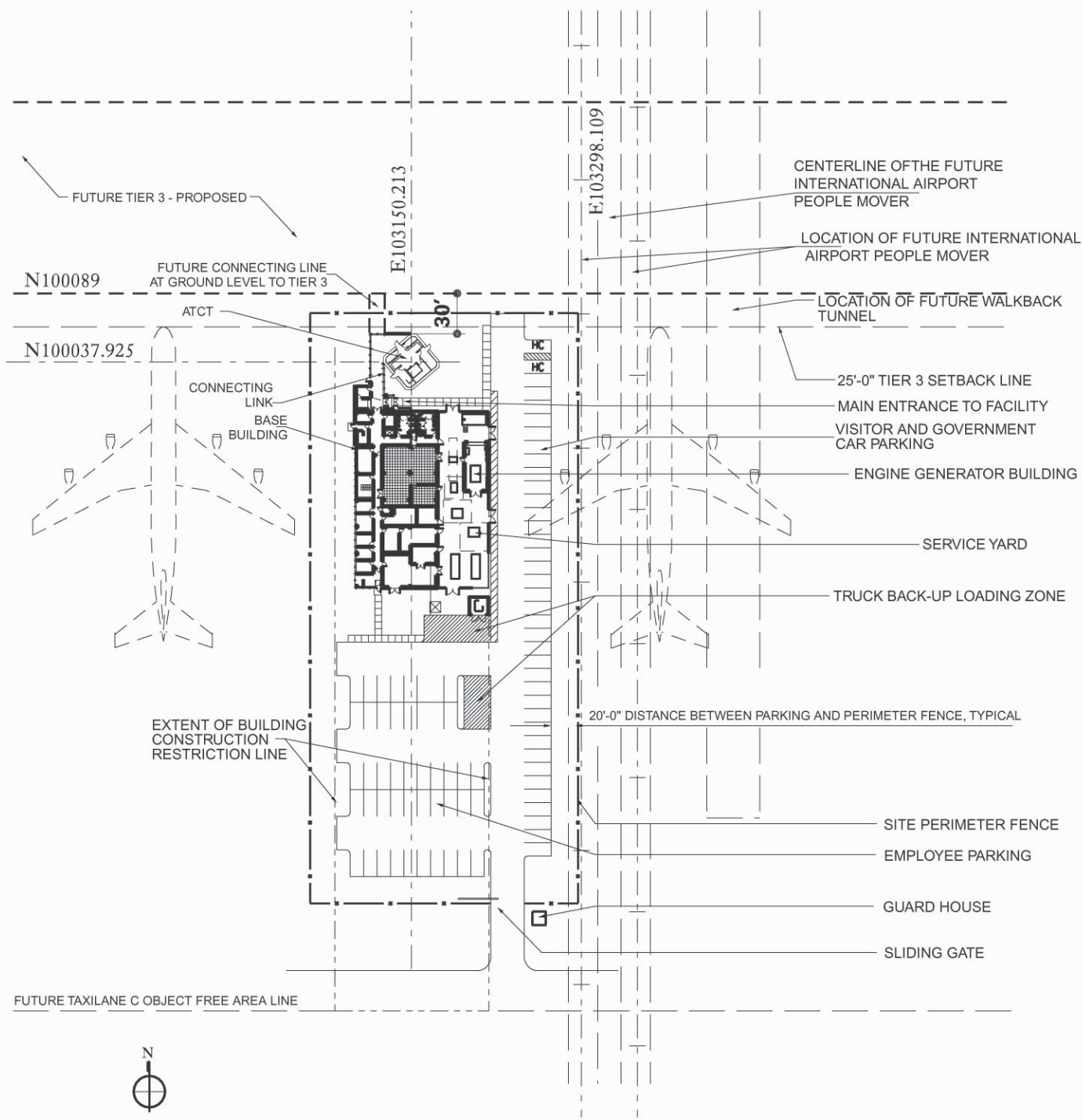


Figure ES-3

Proposed ATCT Site Plan

WASHINGTON DULLES INTERNATIONAL AIRPORT



Source: Jacobs Facilities, Inc.
July 2002

Figure ES-4

View of Proposed ATCT

WASHINGTON DULLES INTERNATIONAL AIRPORT



Source: Jacobs Facilities, Inc., July 2002



METROPOLITAN WASHINGTON AIRPORTS AUTHORITY