

What is an Environmental Impact Statement (EIS)?



- › Conducting an EIS is required under the National Environmental Policy Act of 1969 (NEPA) for all “major federal actions.”
- › Major federal actions are defined by the Council on Environmental Quality (CEQ), regulations as “actions with effects that may be major and which are potentially subject to Federal control and responsibility.”
- › FAA’s approval of an Airport Layout Plan (ALP) and federal funding of airport improvements are federal actions.
- › An EIS is a document that objectively describes a federal project and its potential effects on the natural and human environment. The EIS process can also be used to provide base information for the environmental permitting process required by federal and state agencies.
- › The FAA intends to prepare an EIS to study the environmental impacts that may occur as a result of proposed improvements at ORF.

Project Team Roles and Responsibilities



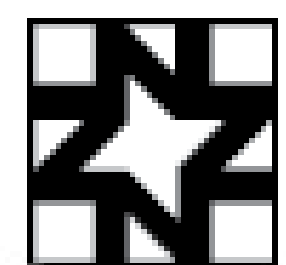
Federal Aviation Administration

- › Conducts environmental analysis, public outreach and coordination with other agencies
- › Ensures compliance with applicable environmental laws and regulations
- › Prepares EIS documents
- › Approves or disapproves documents and federal actions
- › Prepares Record of Decision on federal actions



EIS Consultant Team

- › Provides technical expertise and staff to assist FAA in carrying out its responsibilities



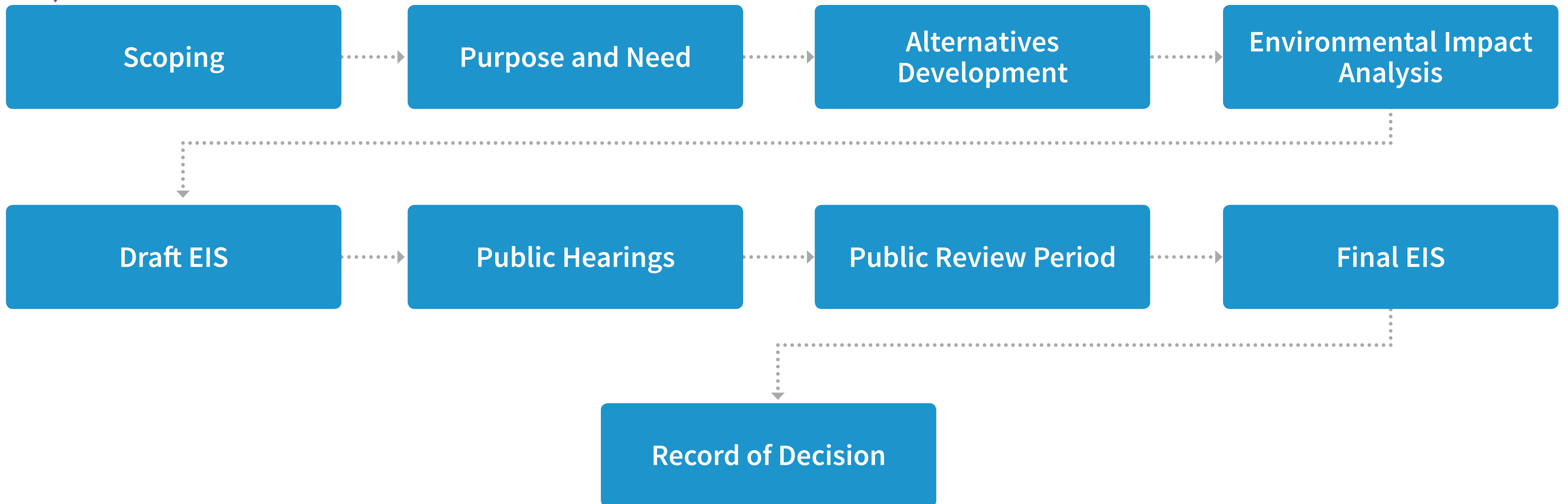
Norfolk Airport Authority

NORFOLK
AIRPORT
AUTHORITY

- › Owns and operates the Airport
- › Sponsor of proposed project
- › Provides data and information to assist FAA in carrying out its responsibilities

EIS Process

You are
here



Scoping Period Outreach

Public Scoping Meetings

- › July 22-23, 2015 (Virginia Beach and Norfolk)

Agency Scoping Meeting

- › July 22, 2015 at Norfolk International Airport

Public Notifications

- › Federal Register notice
- › Email notices
- › Postcards
- › Press Release/Media Advisory
- › Legal ads and regular ads
 - Virginian Pilot
 - New Journal and Guide
 - Daily Press
 - Tidewater Hispanic
- › Local Public Information Officer (PIO) outreach
- › Boards at local facilities (libraries, community centers, etc.)

Project website: www.orf-eis.com

Contact: orf-eis@vhb.com or mail to

FAA Washington Airport District Office-AEA-WAS-ADO
Attn: Norfolk International Airport EIS
23723 Air Freight Lane, Suite 210 | Dulles, VA 20166

Scoping Comment Period ends
August 3, 2015



ORF/EIS
Norfolk International Airport
Environmental Impact Statement

Scoping Comment Form

Scoping comments are an integral part of the scoping process for an Environmental Impact Statement (EIS). This comment form is provided to receive your input on the Norfolk International Airport EIS and ensure that your concerns are considered as part of the EIS planning process. Please use this form to submit written comments, attaching additional pages if necessary. Either place the form in the comment box provided at the public meetings, email to ORF-EIS@vhb.com, or mail to the address below, postmarked by **August 3, 2015**. Please note that this form is pre-addressed on the reverse side if you wish to fold, stamp and mail this sheet with your comments.

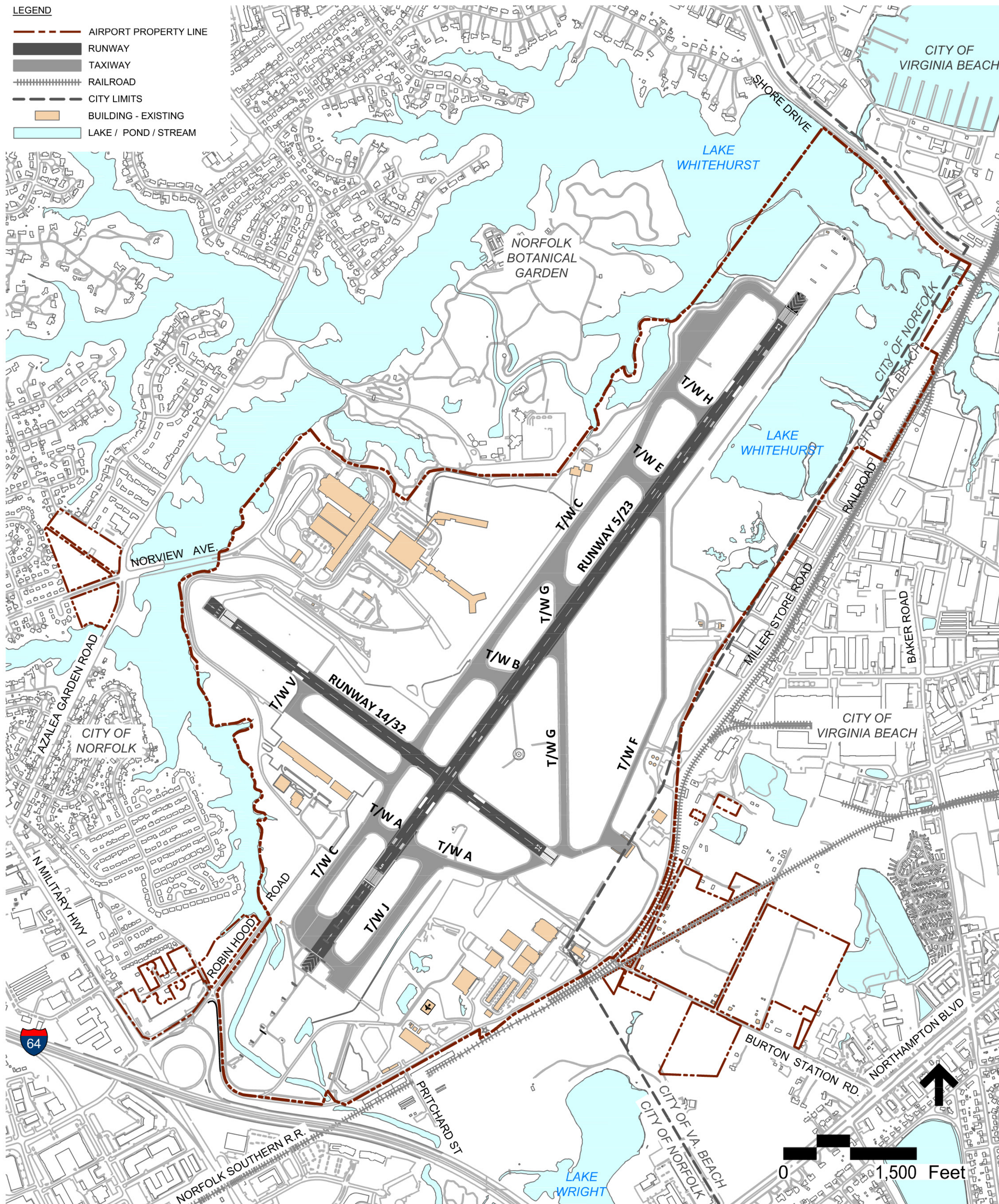
PLEASE PRINT
Name: _____
Affiliation/Organization: _____
Street: _____
City, State, Zip: _____
Email: _____

All comments are due by **August 3, 2015**. There are several ways to provide scoping comments:

- Complete and submit this form at one of the Public Scoping Meetings.
- Visit the website at www.ORF-EIS.com and download a comment form.
- Email your comments: ORF-EIS@vhb.com
- Mail comments to:
FAA Washington Airport District Office
AEA-WAS-ADO
Attn: Norfolk International Airport EIS
23723 Air Freight Lane, Suite 210
Dulles, VA 20166



Existing Facilities



Airfield configuration



Vehicular access routes

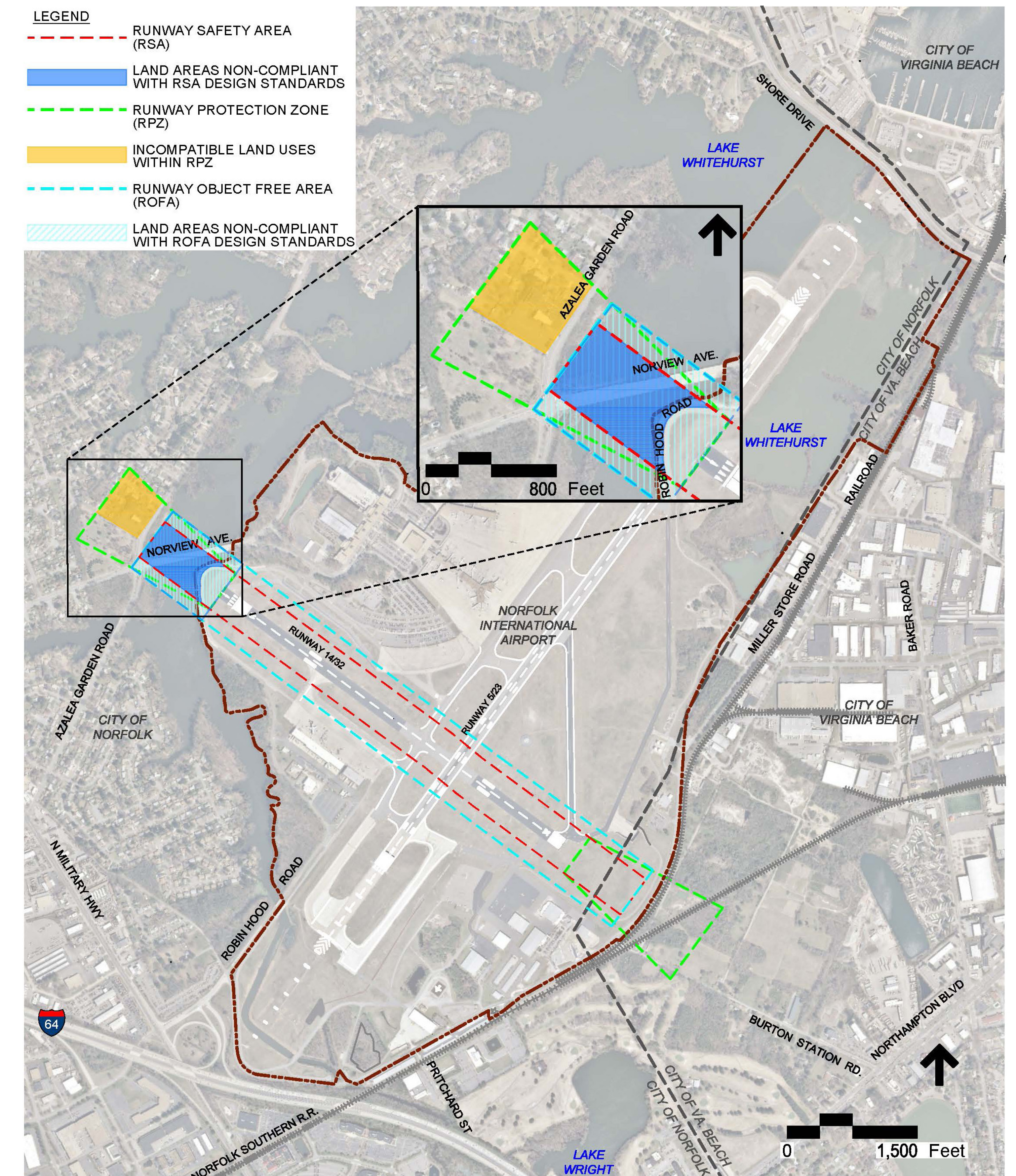
Limitations and Deficiencies

Runway 14/32 does not meet the FAA design standards, including:

Runway Safety Area (RSA), which is designed to provide additional safety in the event an aircraft leaves the runway.

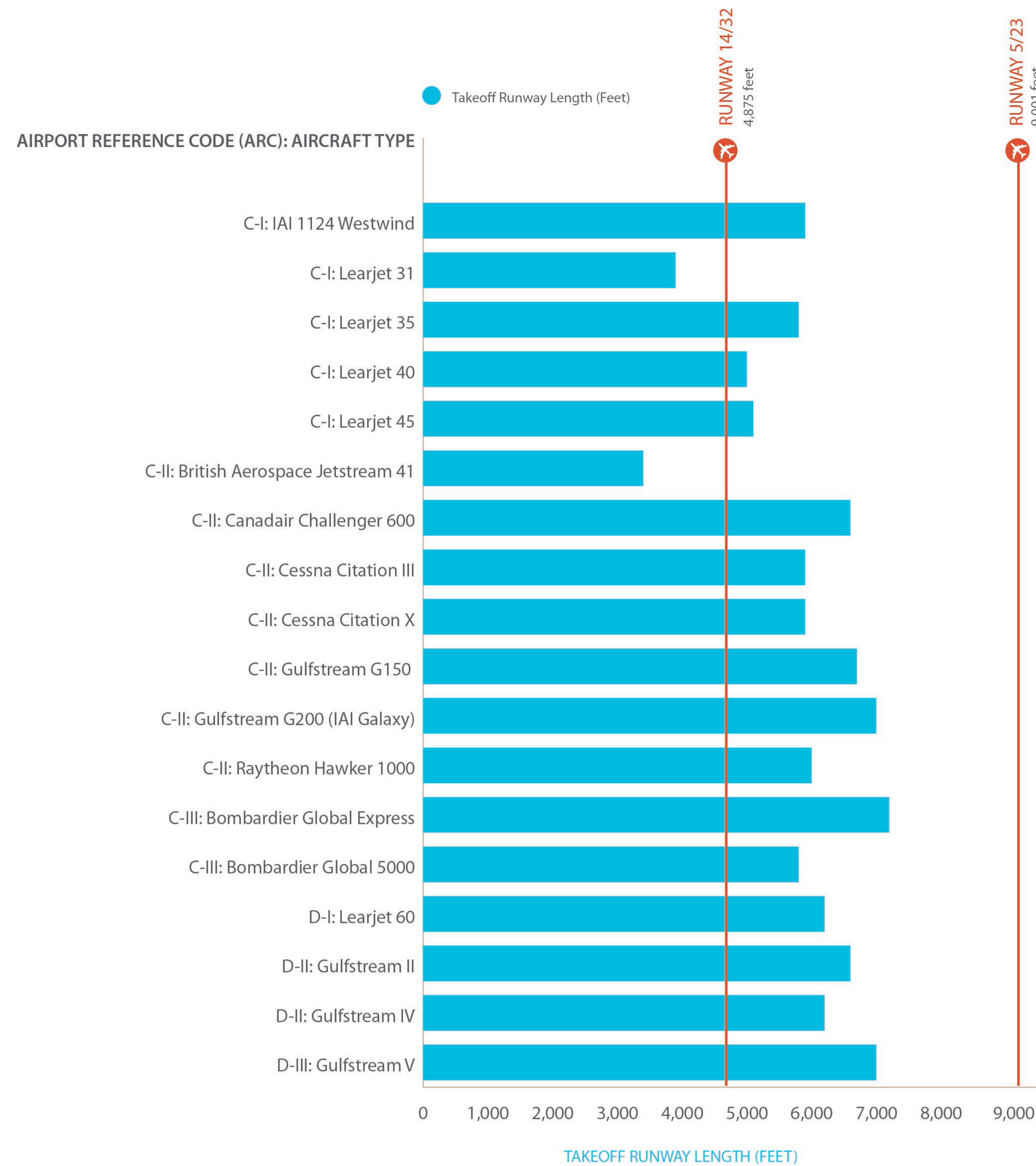
Runway Protection Zone (RPZ), which is the area at ground level prior to the threshold or beyond the runway end to enhance the safety and protection of people and property on the ground.

Runway Object Free Area (ROFA), which is designed to provide an area clear of objects surrounding the runway.



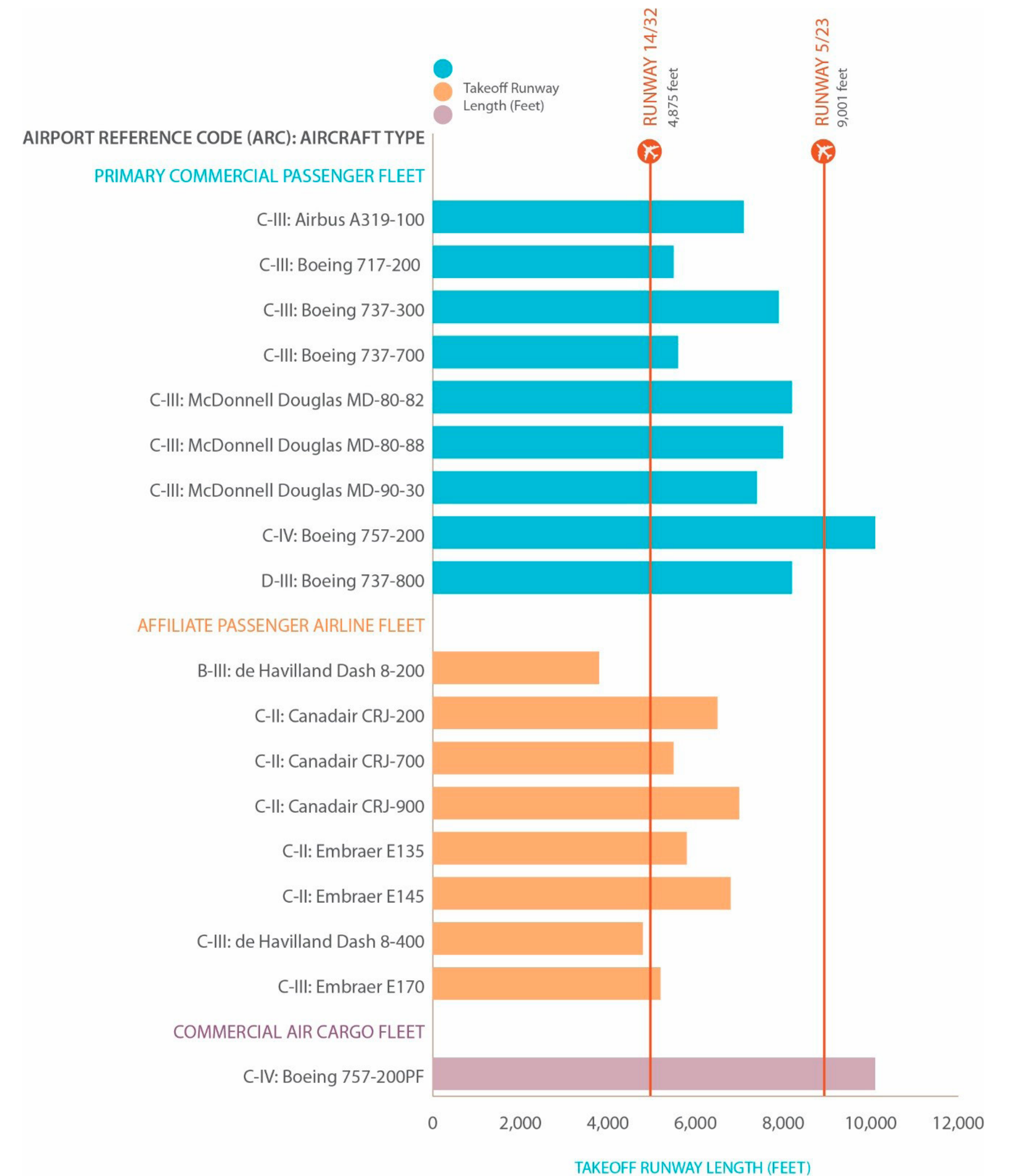
Limitations and Deficiencies

Current airfield configuration limits operational efficiency, safety, and flexibility due to the secondary runway length and challenges in taxiing from the airfield layout.



Source: Aircraft manufacturer specifications and/or other reasonably available sources. Compiled by VHB Team, 2014.

General Aviation Runway Length Requirements



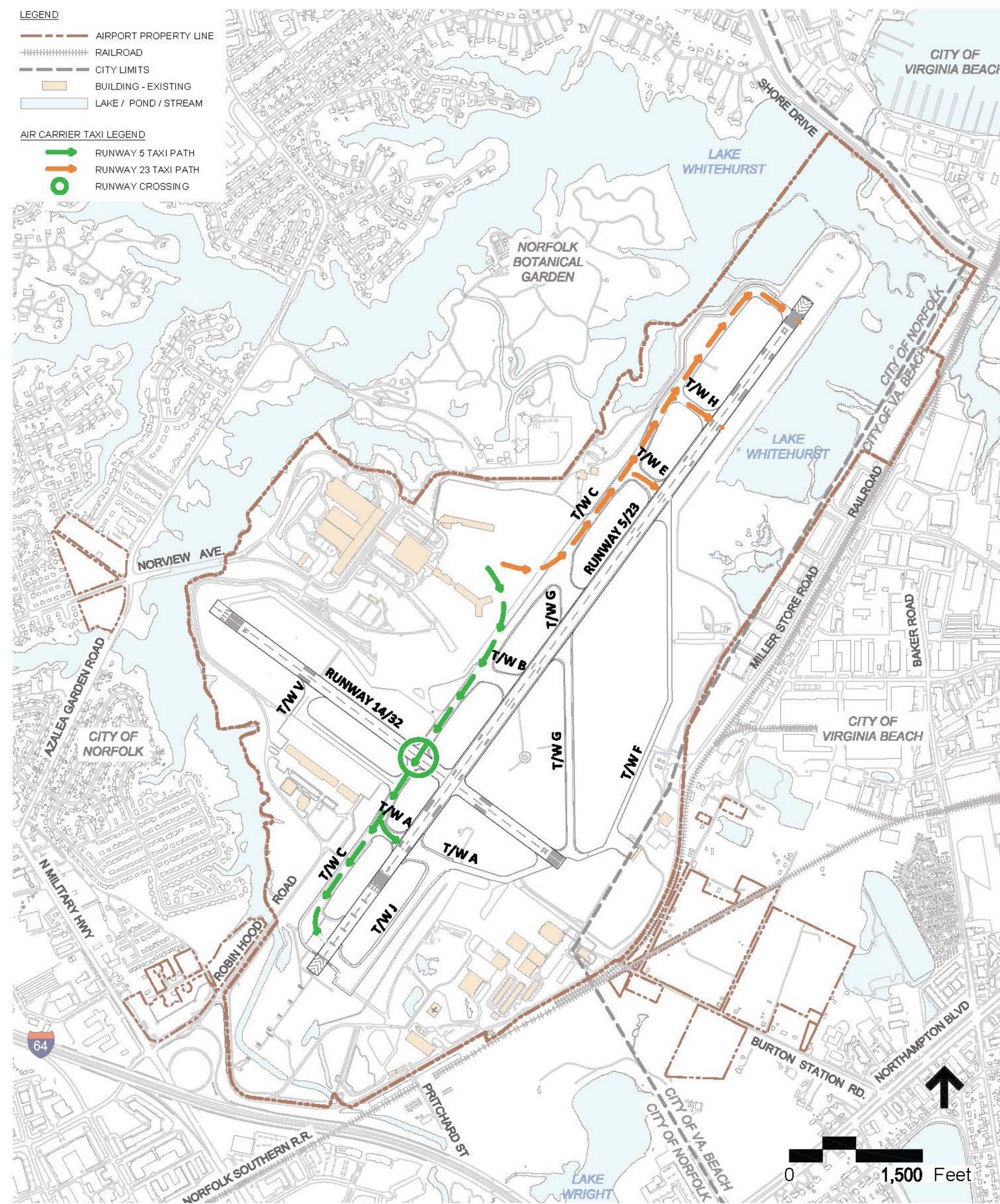
Source: Individual Aircraft Manufacturer Airport Planning Manuals. Compiled by VHB Team, 2014.

Commercial Aircraft Runway Length Requirements

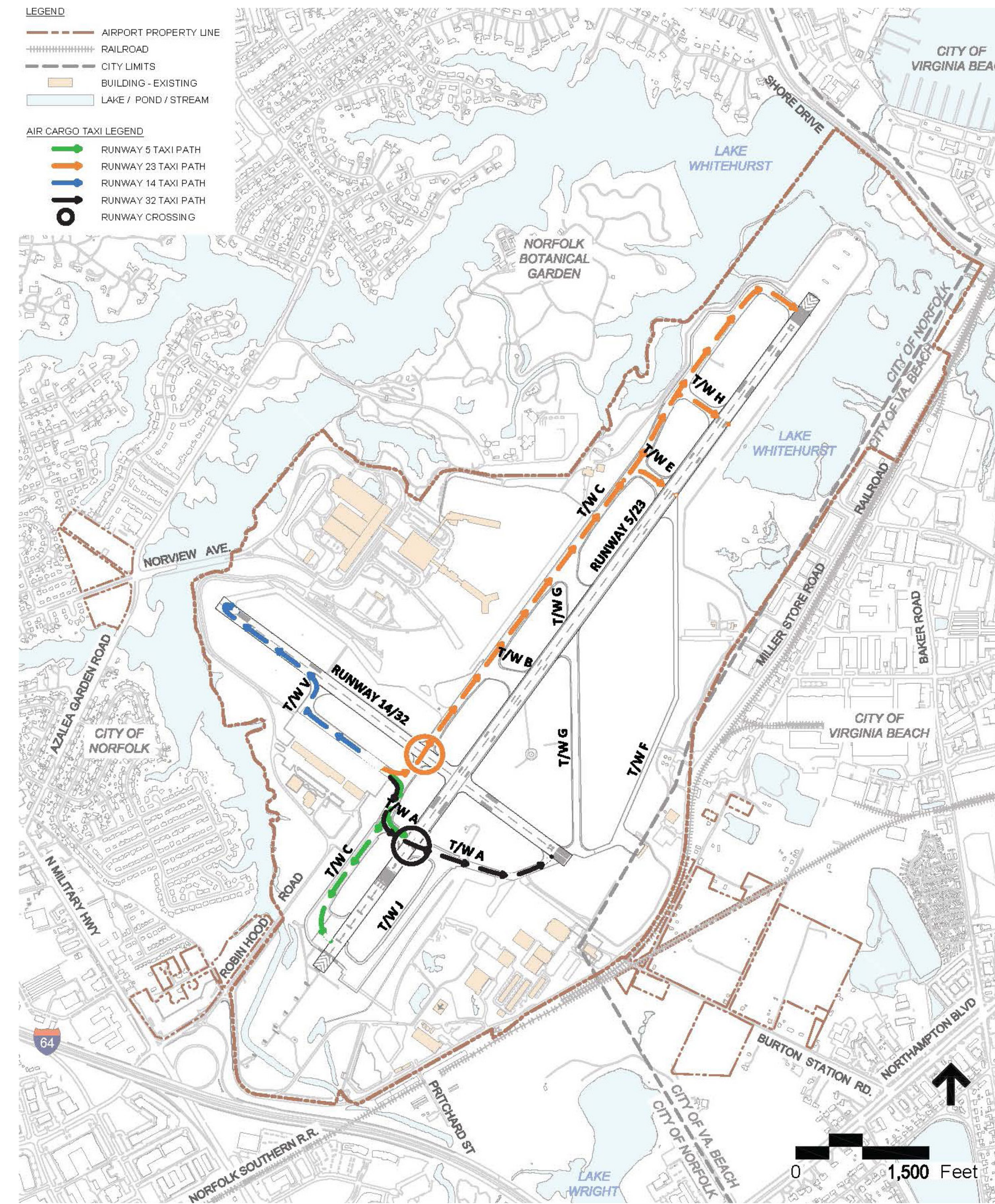
Limitations and Deficiencies



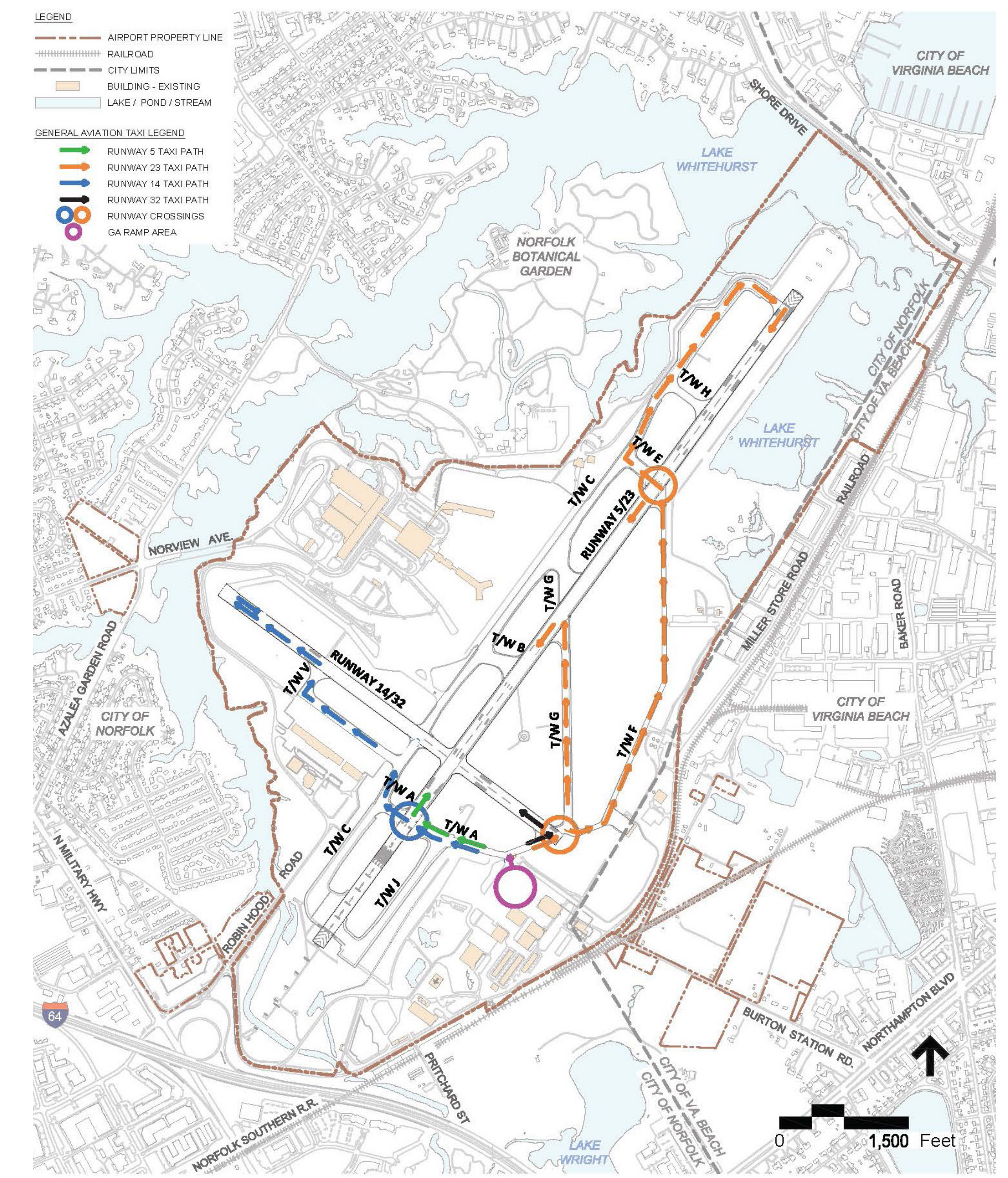
Current airfield configuration limits operational efficiency, safety, and flexibility due to the secondary runway length and challenges in taxiing from the airfield layout.



Air Carrier



Air Cargo



General Aviation

Limitations and Deficiencies



Complex airspace associated with surrounding military facilities surrounds the Airport.

WASHINGTON LEGEND

HLNOS NORTH

Airports having Control Towers are shown in Blue, all others in Magenta. Consult Airport/Facility Directory (A/FD) for details involving airport lighting, navigation aids, and services. All times are local. For additional symbol information refer to the Chart User's Guide.

AIRPORTS		AIRPORT DATA	
	Other than hard-surfaced runways		Seaplane Base runways
	Hard-surfaced runways 1500 ft. to 8069 ft. in length		Hard-surfaced runways greater than 8069 ft. or some multiple runways less than 8069 ft.
	Open dot within hard-surfaced runway configuration indicates approximate VOR, VOR-DME, or VORTAC location.		All recognizable hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

ADDITIONAL AIRPORT INFORMATION

- Private "Pvt" - Non-public use having emergency or landmark value
- Military - Other than hard-surfaced; all military airports are identified by abbreviations AFB, NAS, AAF, etc. DoD users, for complete airport information consult DoD FLIP.
- Helipad Selected
- Unverfied
- Abandoned - paved having landmark value, 3000 ft. or greater
- Ultraflight Flight Park Selected

Services - fuel available and field tended during normal working hours depicted by use of ticks around basic airport symbol. (Normal working hours are Mon thru Fri 10:00 A.M. to 4:00 P.M.) Consult A/FD for service availability at airports with hard-surfaced runways greater than 8069 ft.

★ Rotating airport beacon in operation Sunset to Sunrise
OBJECTIONABLE - Airport may adversely affect airspace use.

AIRPORT TRAFFIC SERVICE AND AIRSPACE INFORMATION

Only the controlled and reserved airspace effective below 18,000 ft. MSL are shown on this chart.

- Class B Airspace
- Class C Airspace (Mode C - see FAR 91.215(AIM))
- Class D Airspace
- Class E Airspace
- Class G Airspace

CLASS G

- Class G Airspace with floor 700 ft. above surface that laterally abuts Class G Airspace.
- Class E Airspace with floor 1200 ft. or greater above surface that laterally abuts Class G Airspace.

2400 MSL Differentiates floors of Class E Airspace greater than 700 ft. above surface.
4500 MSL Class E Airspace exists at 1200' AGL unless otherwise designated as shown above.
Class E Airspace low altitude Federal Airways are indicated by center line.
Intersection - Arrows are directed towards facilities which establish intersection.

Total mileage between NAVAIDs on direct Airways
Class E Airspace low altitude RNAV 2 Routes are indicated by center line.

COMMUNICATION BOXES

122.1R 122.6 123.6
OAKDALE 362* 336 OAK
CHICAGO CHI
MIAMI

Underline indicates no voice on frequency.
Crosshatch indicates Shutdown status.
★ Operates less than continuous or On-Request.
A - ASOS/AWOS
H - HIWAS
FSS radio providing voice communication

Heavy line box indicates Flight Service Station (FSS). Frequencies 121.5, 122.2, 243.0 and 255.4 (Canada - 121.5, 122.7 and 243.0) are available at many FSSs and are not shown above boxes. All other frequencies are shown.
★ Operates less than continuous or On-Request.
R - Receive only
Frequencies above this line box are removed to NAVIAID site. Other FSS frequencies providing voice communication may be available as determined by altitude and terrain. Consult Airport/Facility Directory for complete information.

RADIO AIDS TO NAVIGATION

- VHF OMNI RANGE (VOR)
- VORTAC
- Non-Directional Radio Beacon (NDB)
- NDB - DME
- VOR-DME
- Other facilities, i.e., FSS Outlet, RCO, etc.

OBSTRUCTIONS

1000 ft and higher AGL

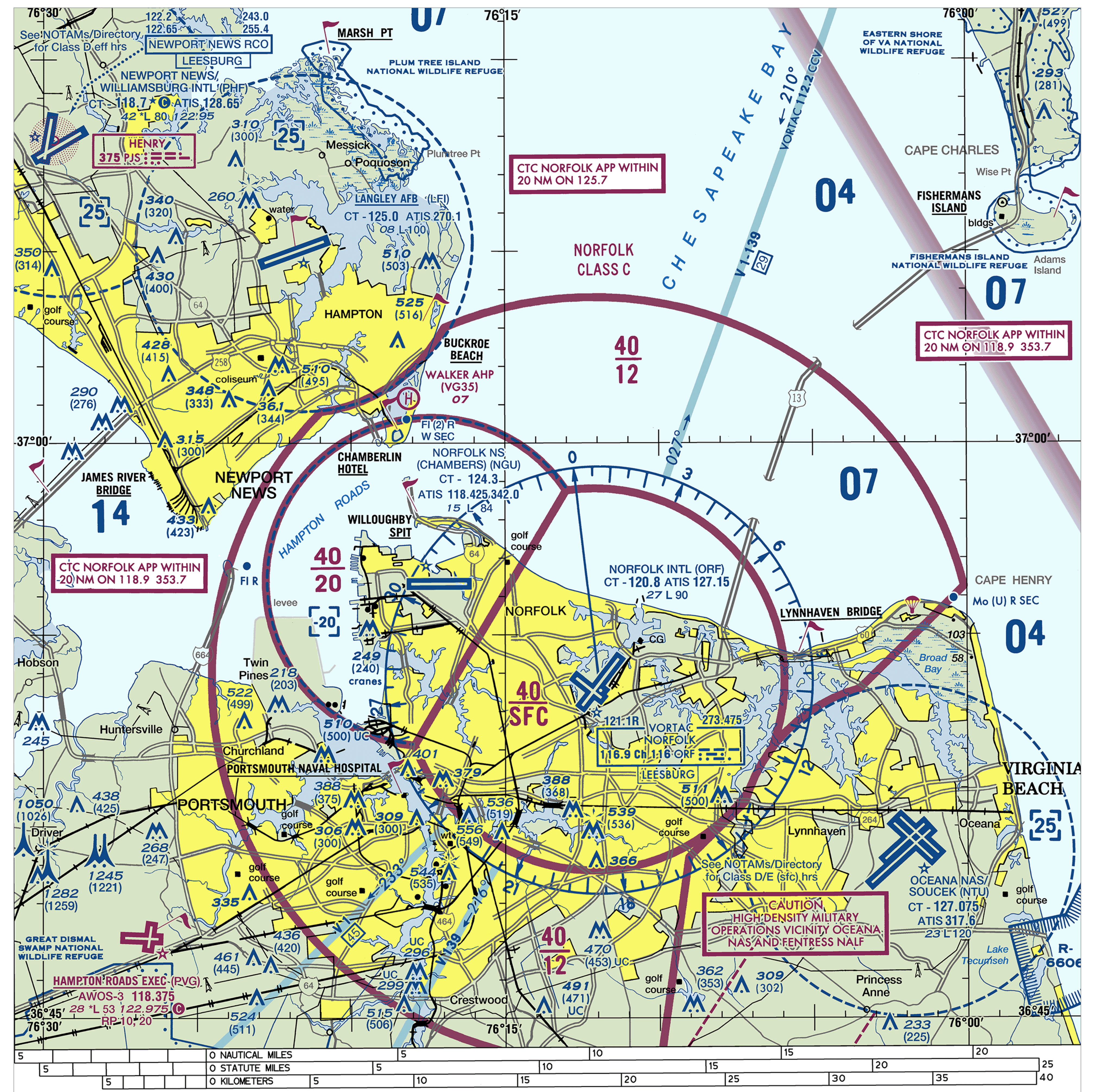
- Wind Turbine
- Group Obstruction
- Obstruction with high-intensity lights; may operate part-time

MISCELLANEOUS

- Hang Glider Activity
- Ultraflight Activity
- Parachute Jumping Area (See Airport/Facility Directory)
- VPXYZ
- VFR Waypoints (See chart tabulation for latitude/longitude.)
- Marine Light
- Isogonic Line (2010 VALUE)

TOPOGRAPHIC INFORMATION

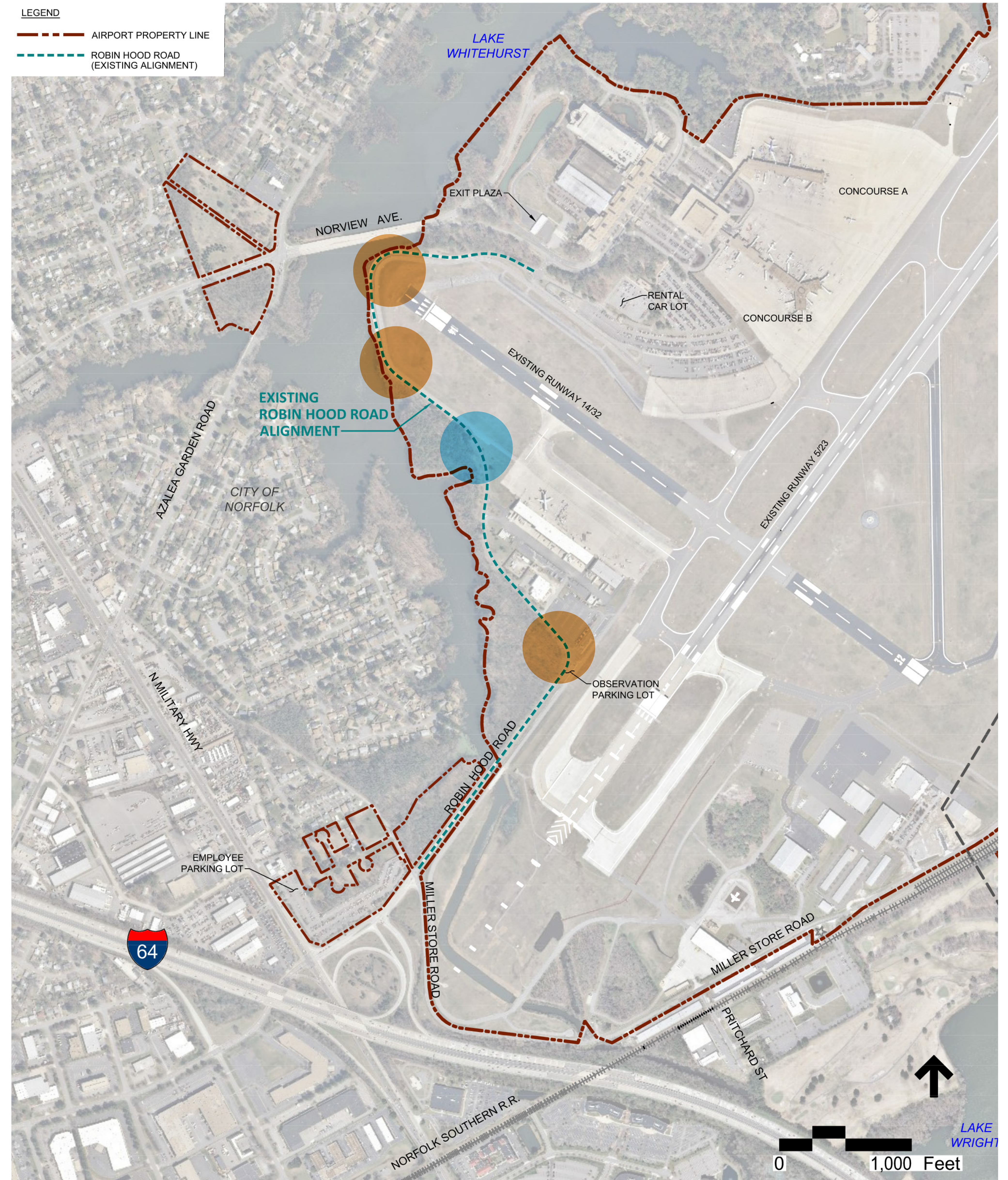
- Power Transmission Line
- Aerial Cable
- Lookout Tower
- MTR - Military Training Route
- Mountain Pass
- Pass symbol (Pass symbol does not indicate a recommended route or direction of flight and pass elevation does not indicate a recommended clearance altitude. Hazardous flight conditions may exist within and near mountain passes.)



Limitations and Deficiencies

The secondary southern access to the Airport, Robin Hood Road, has safety and functional deficiencies.

- Does not meet minimum sight distance due to obstructions
- Does not meet minimum radii and sight distance requirements



Draft Purpose and Need

- › To meet relevant FAA airfield safety standards and enhance airfield safety without reducing runway availability;
- › To enhance operational efficiency and maintain airfield utility while considering surrounding airspace and the Airport's critical design aircraft; and,
- › To provide a safe, efficient southern vehicular access, on Airport property, to the passenger terminal area.

Previous Planning Efforts

- › The FAA started an EIS process earlier and briefly issued a Draft EIS before it was withdrawn in 2004.
- › The Norfolk Airport Authority has conducted additional planning after the withdrawn Draft EIS and prior to the start of this EIS, including:
 - Master Plan Update (2008)
 - Justification for Proposed Runway 5R/23L (2009)
- › The Authority developed and evaluated project alternatives during these past planning efforts.
- › The FAA will conduct an independent alternatives identification and screening process as part of this EIS.

Withdrawn Draft EIS (2004)

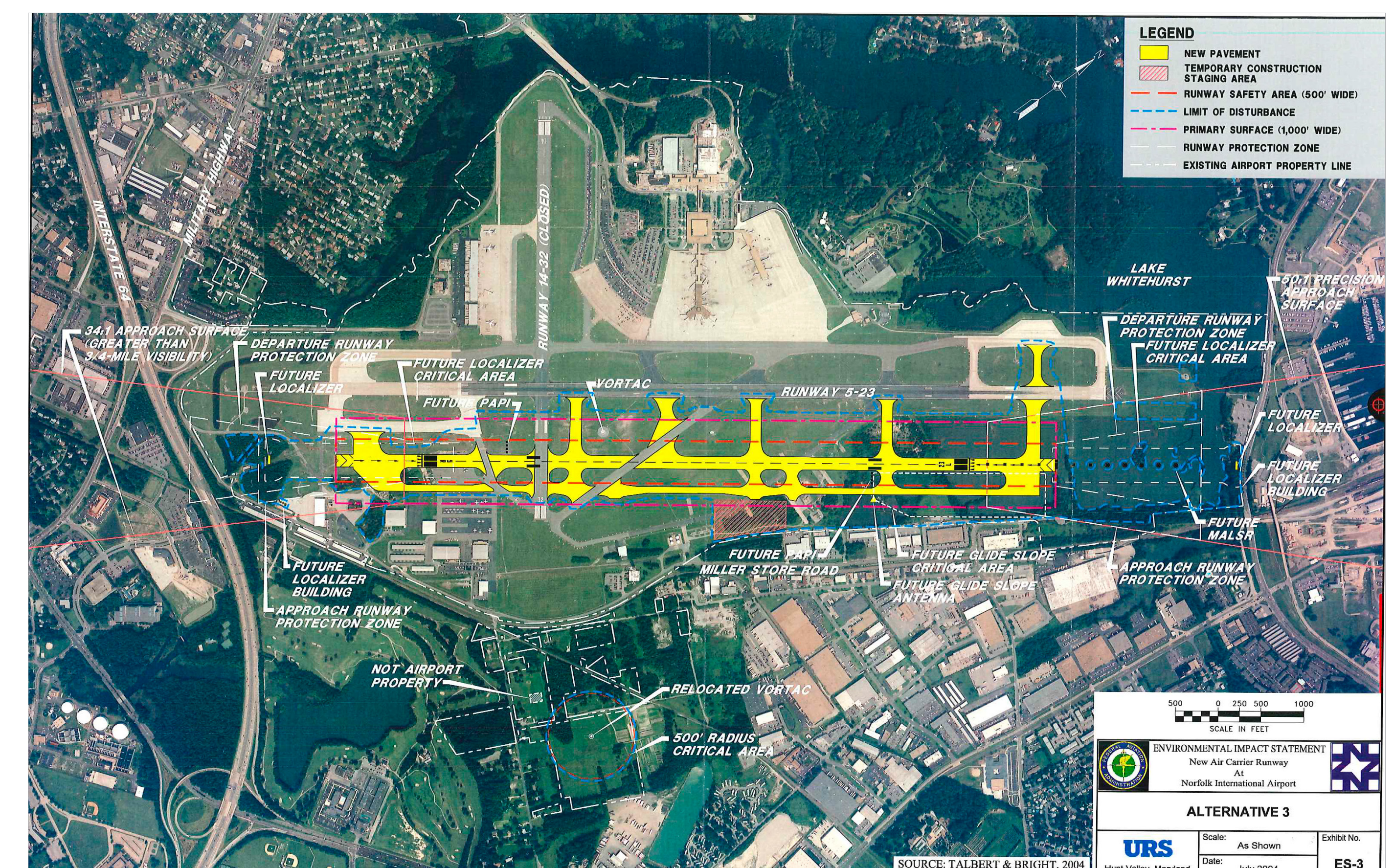
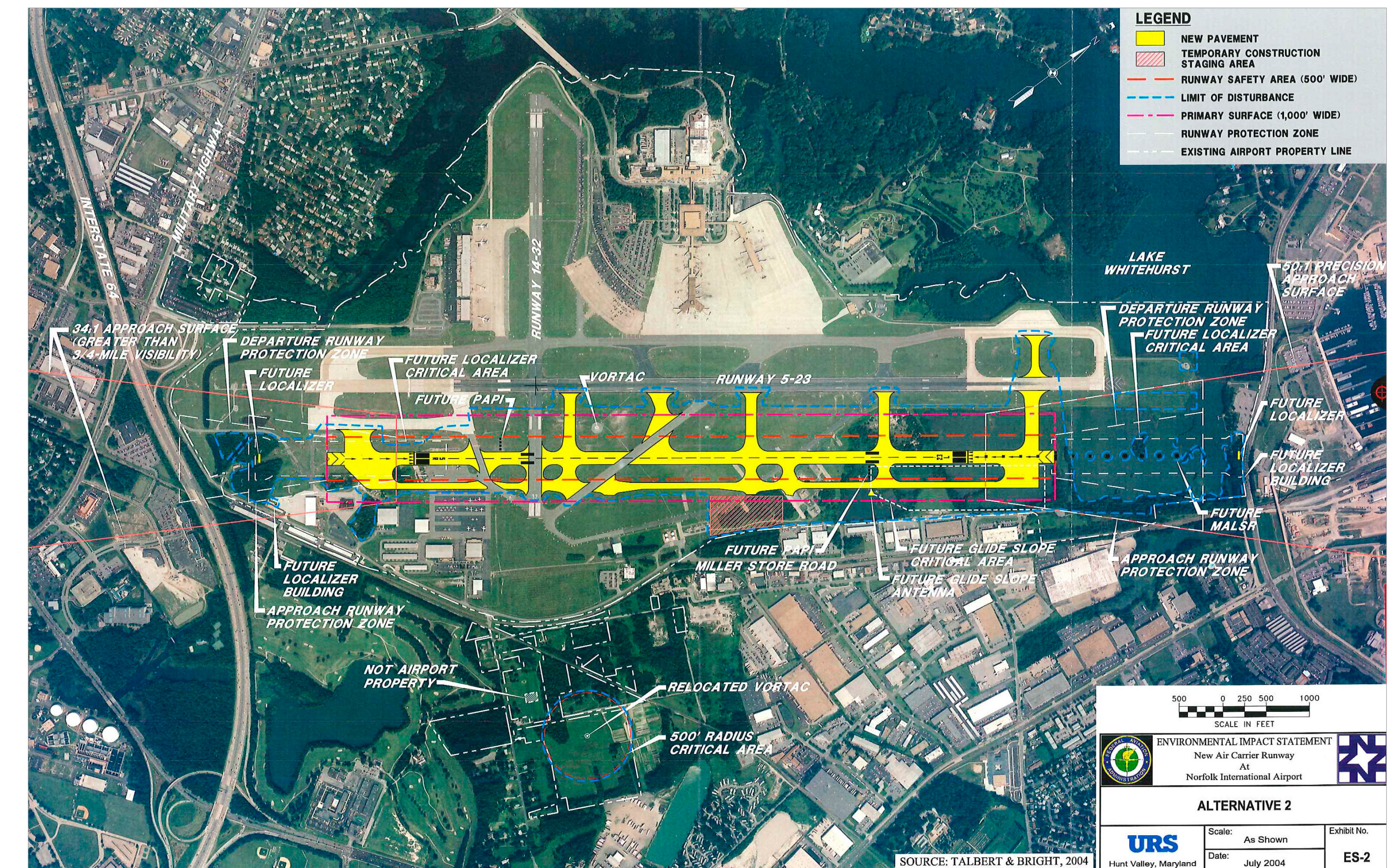
ORFEIS

Norfolk International Airport
Environmental Impact Statement



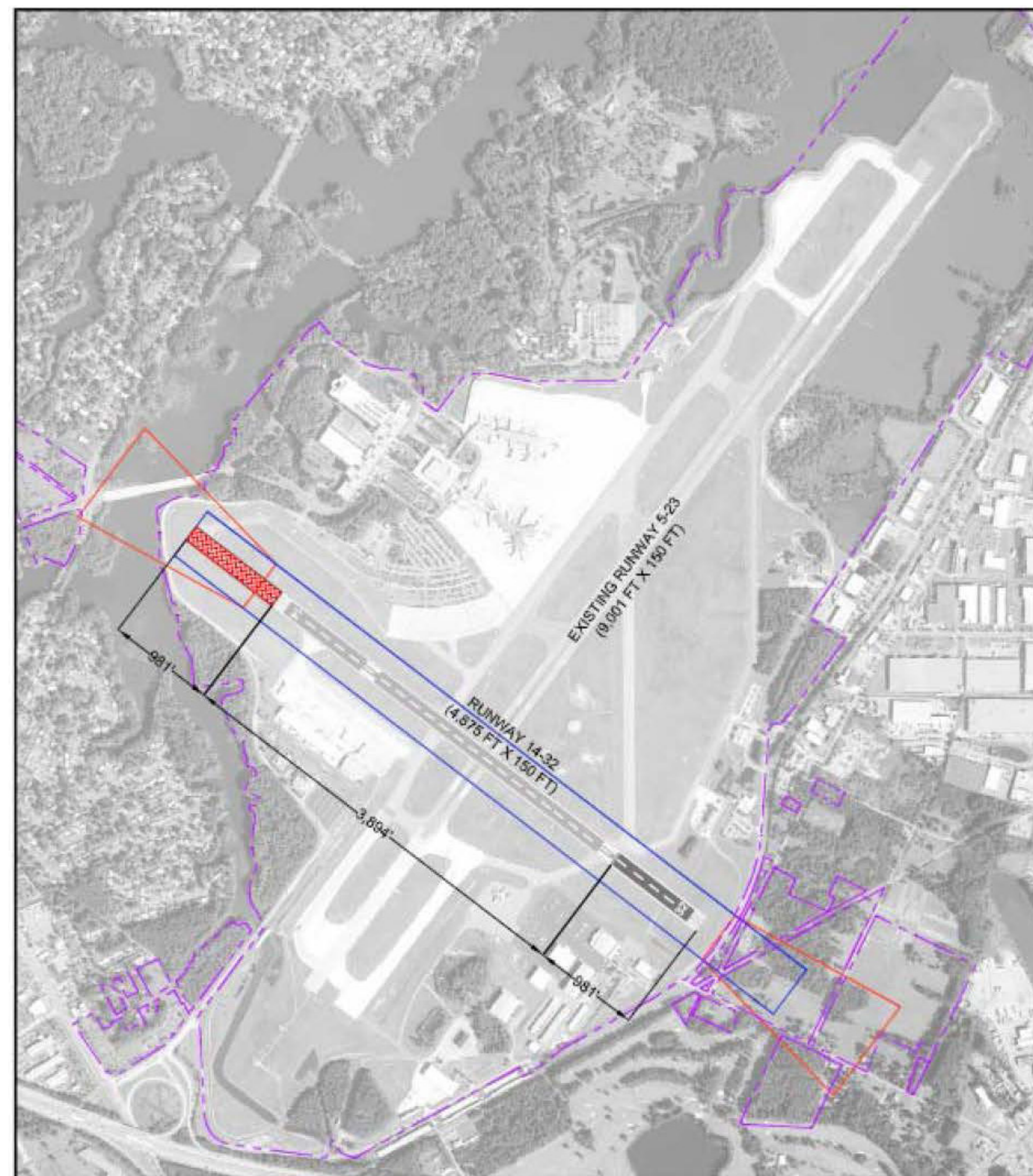
Need for Proposed Improvements in Withdrawn Draft EIS (2004)

- › An airfield system that can accommodate staggered simultaneous independent operations when Visual Flight Rules (VFR) conditions exist;
- › An airfield with an Airport Reference Code of D-IV while providing redundant air carrier approaches for C-IV aircraft; and
- › Runway Safety Areas that are in compliance with FAA design criteria



Master Plan Update (2008)

Family 1



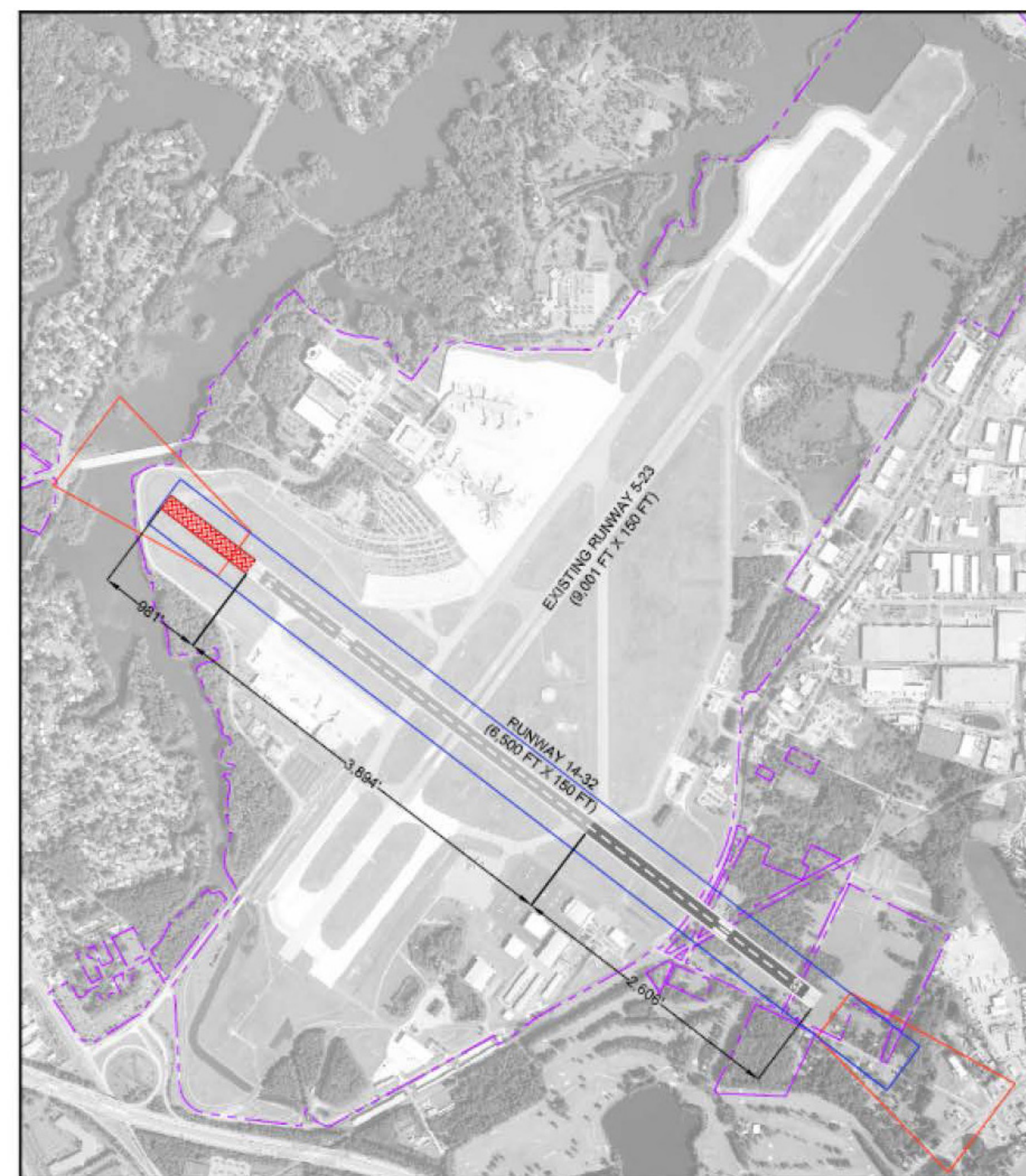
LEGEND

- Airport property line
- Approach runway protection zone
- Existing runway pavement
- New runway pavement
- ▣ Pavement to be removed
- Runway safety area

Figure 5-1
AIRFIELD DEVELOPMENT
ALTERNATIVE 1
Master Plan Update
Norfolk International Airport
October 2008

**JACOBS
CONSULTANCY**
Airport Management Consulting

Extend Runway 14/32 by 980 feet to southeast end and remove 980 feet from northwest end.



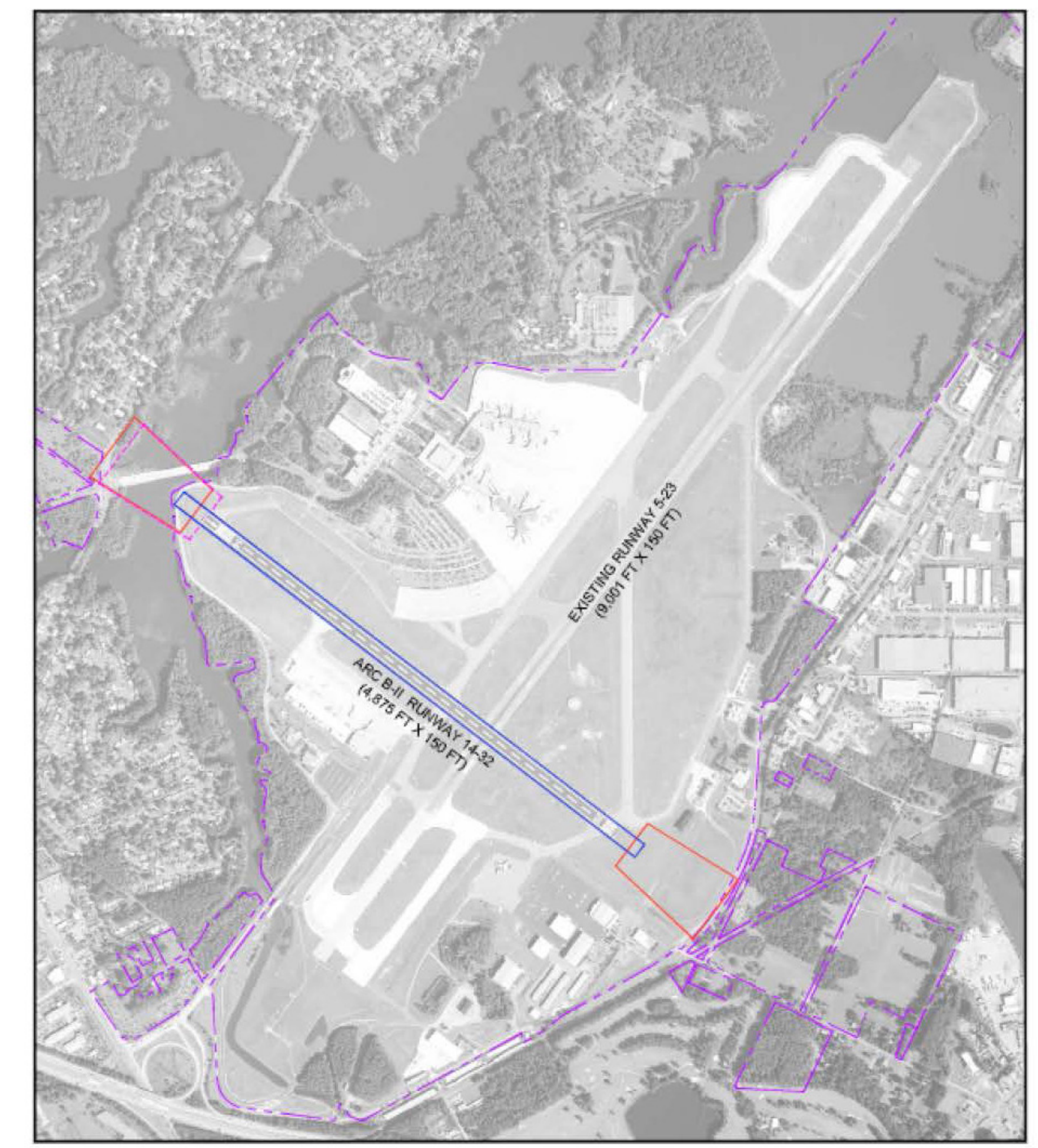
LEGEND

- Airport property line
- Approach runway protection zone
- Existing runway pavement
- New runway pavement
- ▣ Pavement to be removed
- Runway safety area

Figure 5-2
AIRFIELD DEVELOPMENT
ALTERNATIVE 2
Master Plan Update
Norfolk International Airport
October 2008

**JACOBS
CONSULTANCY**
Airport Management Consulting

Extend Runway 14/32 to approximately 6,500 feet by extending the southeast end by 2,580 feet and removing 980 from the northwest end.



LEGEND

- Airport property line
- Approach runway protection zone
- Departure runway protection zone
- Existing runway pavement
- Runway safety area

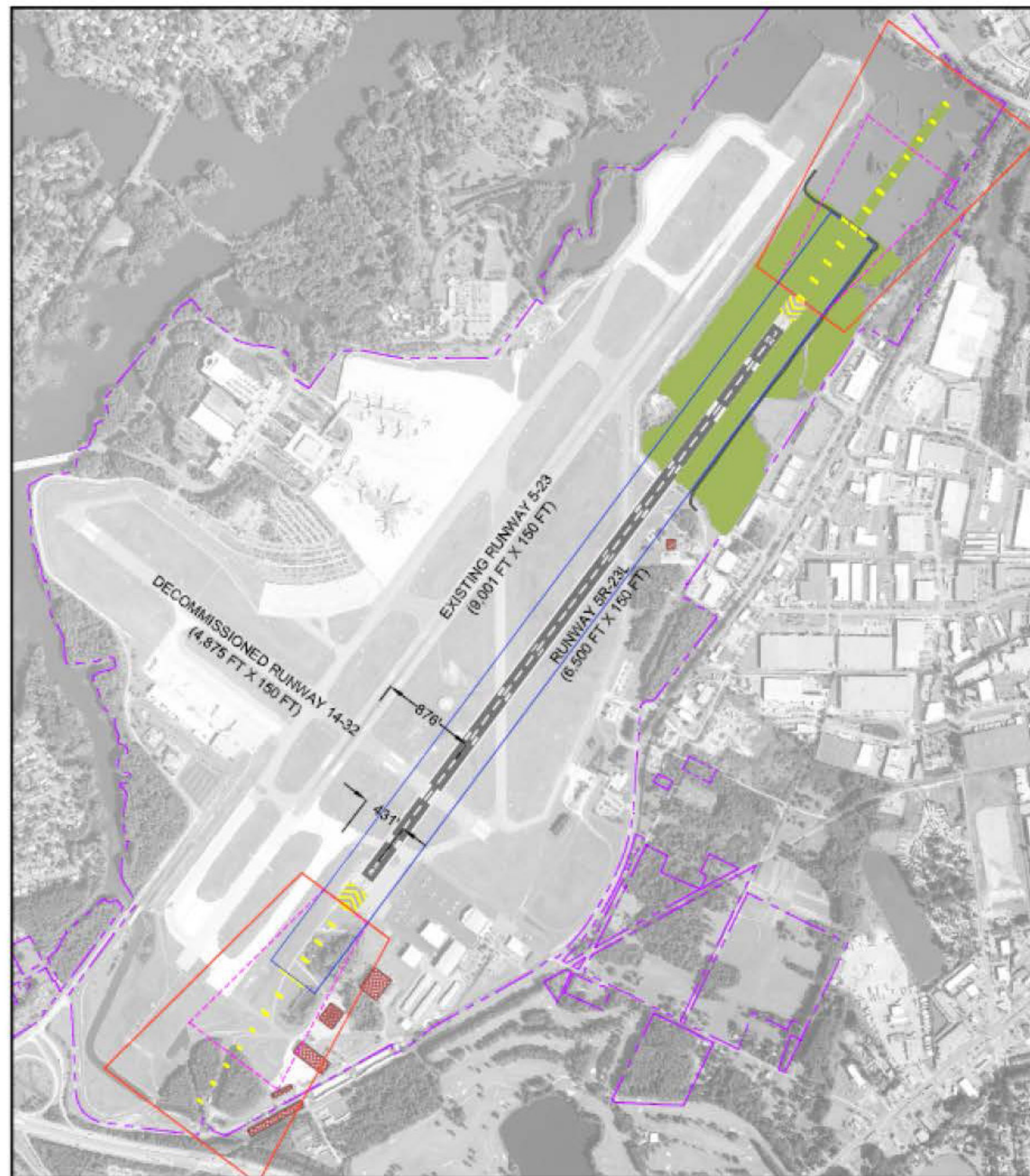
Figure 5-3
AIRFIELD DEVELOPMENT
ALTERNATIVE 3
Master Plan Update
Norfolk International Airport
October 2008

**JACOBS
CONSULTANCY**
Airport Management Consulting

Reduce utility of Runway 14/32, which would reduce the required RSA and RPZ dimensions and bring the runway into compliance.

Master Plan Update (2008)

Family 2



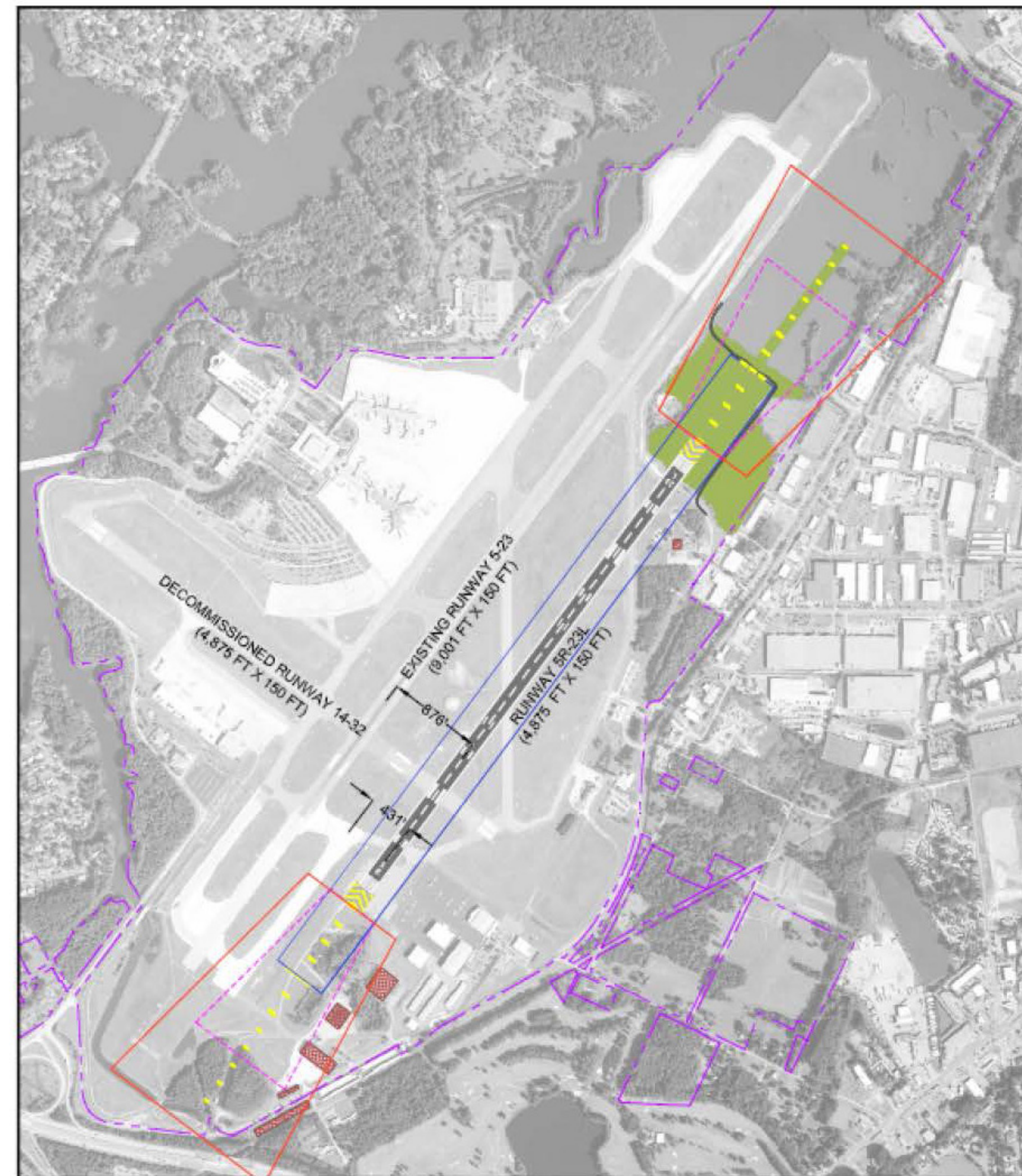
LEGEND

- Airport property line
- Approach lighting system (MALSR)
- Approach runway protection zone
- Departure runway protection zone
- Earth fill area
- Relocated perimeter road
- Runway safety area
- ▣ Structures to be removed

Figure 5-4
AIRFIELD DEVELOPMENT
ALTERNATIVE 4
Master Plan Update
Norfolk International Airport
October 2008

JACOBS CONSULTANCY
Airport Management Consulting

Construct new parallel runway to 6,500 feet in length and 150 feet in width (approximately 67 acres of fill in Lake Whitehurst). Decommission existing Runway 14/32.



LEGEND

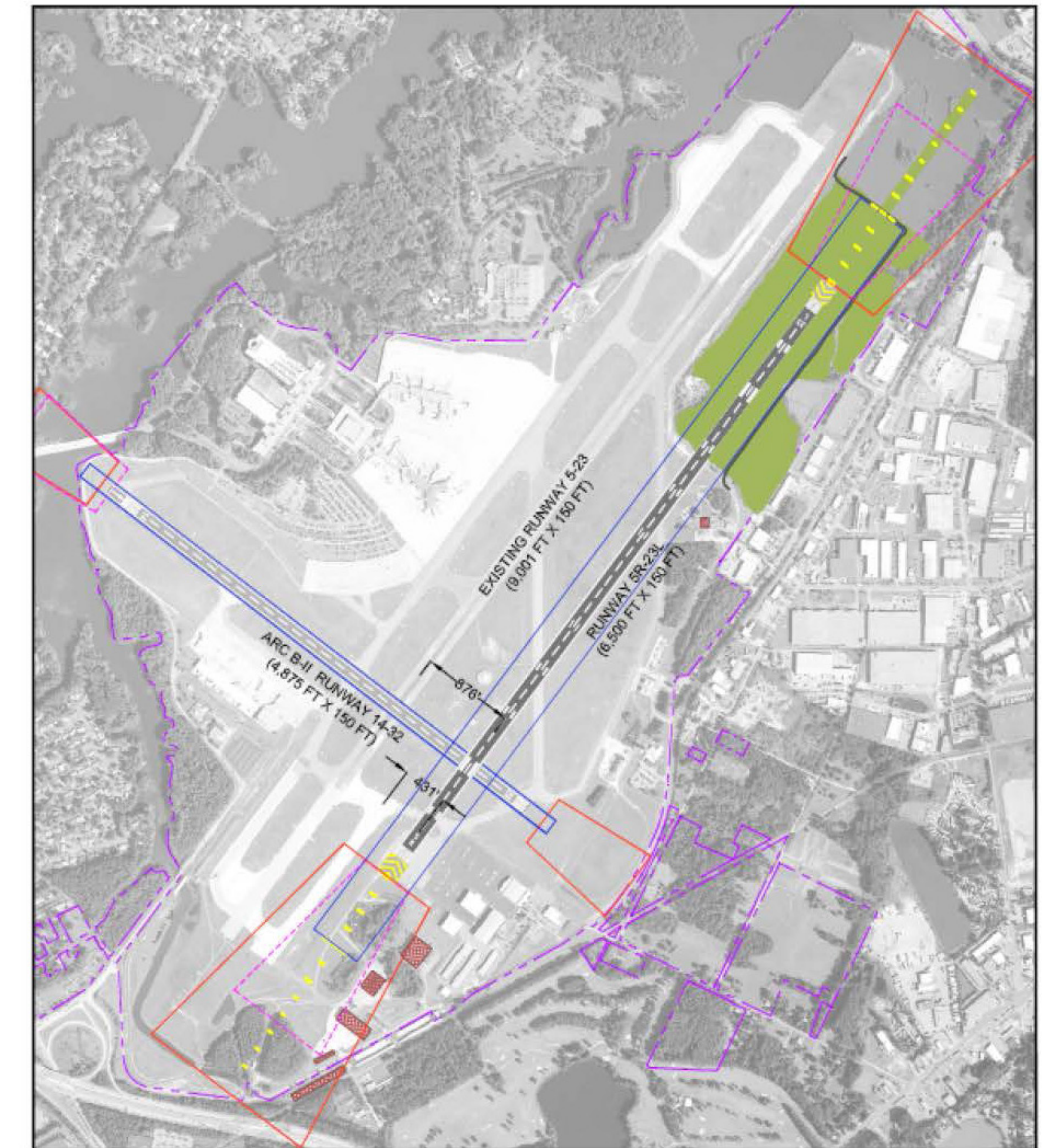
- Airport property line
- Approach lighting system (MALSR)
- Approach runway protection zone
- Departure runway protection zone
- Earth fill area
- Relocated perimeter road
- Runway safety area
- ▣ Structures to be removed

Figure 5-5
AIRFIELD DEVELOPMENT
ALTERNATIVE 5
Master Plan Update
Norfolk International Airport
October 2008

JACOBS CONSULTANCY
Airport Management Consulting

Construct new parallel runway to 4,875 feet in length and 150 feet in width to only accommodate small aircraft (approximately 30 acres of fill in Lake Whitehurst). Decommission existing Runway 14/32.

Family 3



LEGEND

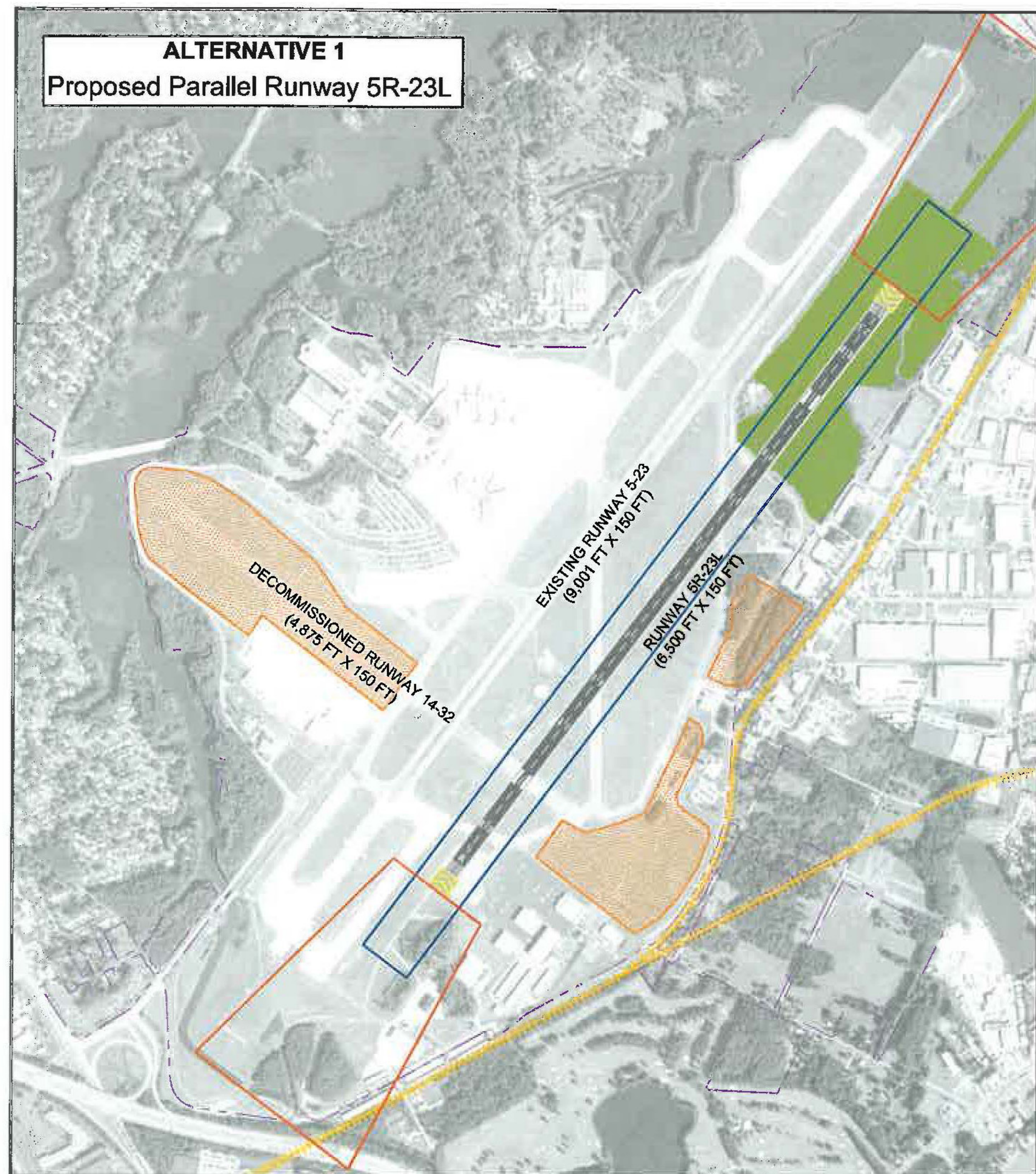
- Airport property line
- Approach lighting system (MALSR)
- Approach runway protection zone
- Departure runway protection zone
- Earth fill area
- Relocated perimeter road
- Runway safety area
- ▣ Structures to be removed

Figure 5-6
AIRFIELD DEVELOPMENT
ALTERNATIVE 6
Master Plan Update
Norfolk International Airport
October 2008

JACOBS CONSULTANCY
Airport Management Consulting

Construct a new parallel runway to 6,500 feet in length and 150 feet in width (approximately 67 acres of fill in Lake Whitehurst). Runway 14/32 remains in use for small aircraft and its utility would be reduced.

Justification for Proposed Runway 5R/23L (2009)

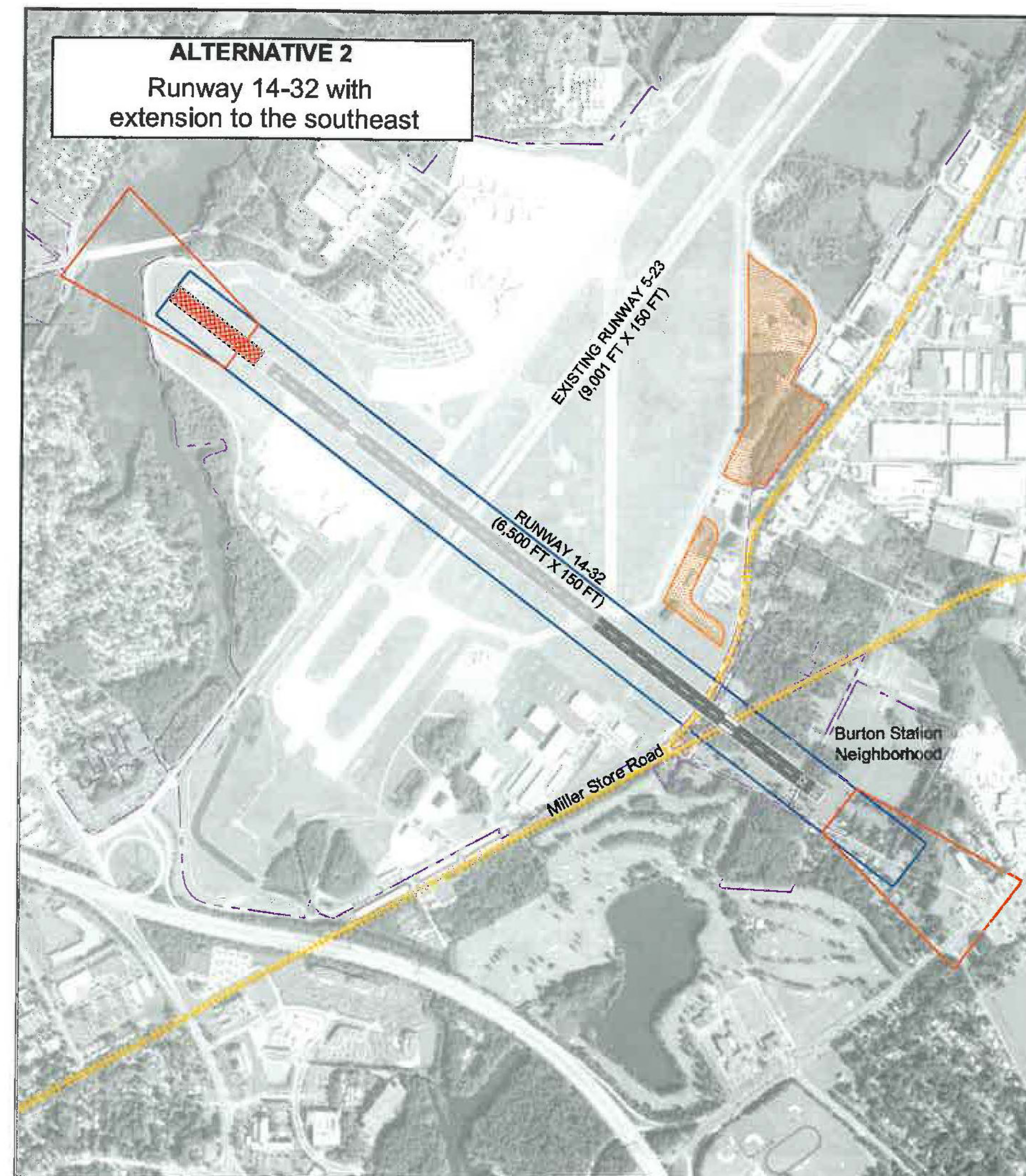


ALTERNATIVE 1
Proposed Parallel Runway 5R-23L

LEGEND

- Airport property line
- Land available on-Airport for development
- New runway pavement
- Lake Fill
- Runway protection zone
- Runway safety area
- Norfolk Southern railroad line

Figure 3
SECONDARY RUNWAY ALTERNATIVE 1
Justification for Proposed Runway 5R-23L
Norfolk International Airport
December 2009
JACOBS CONSULTANCY
Airport Management Consulting

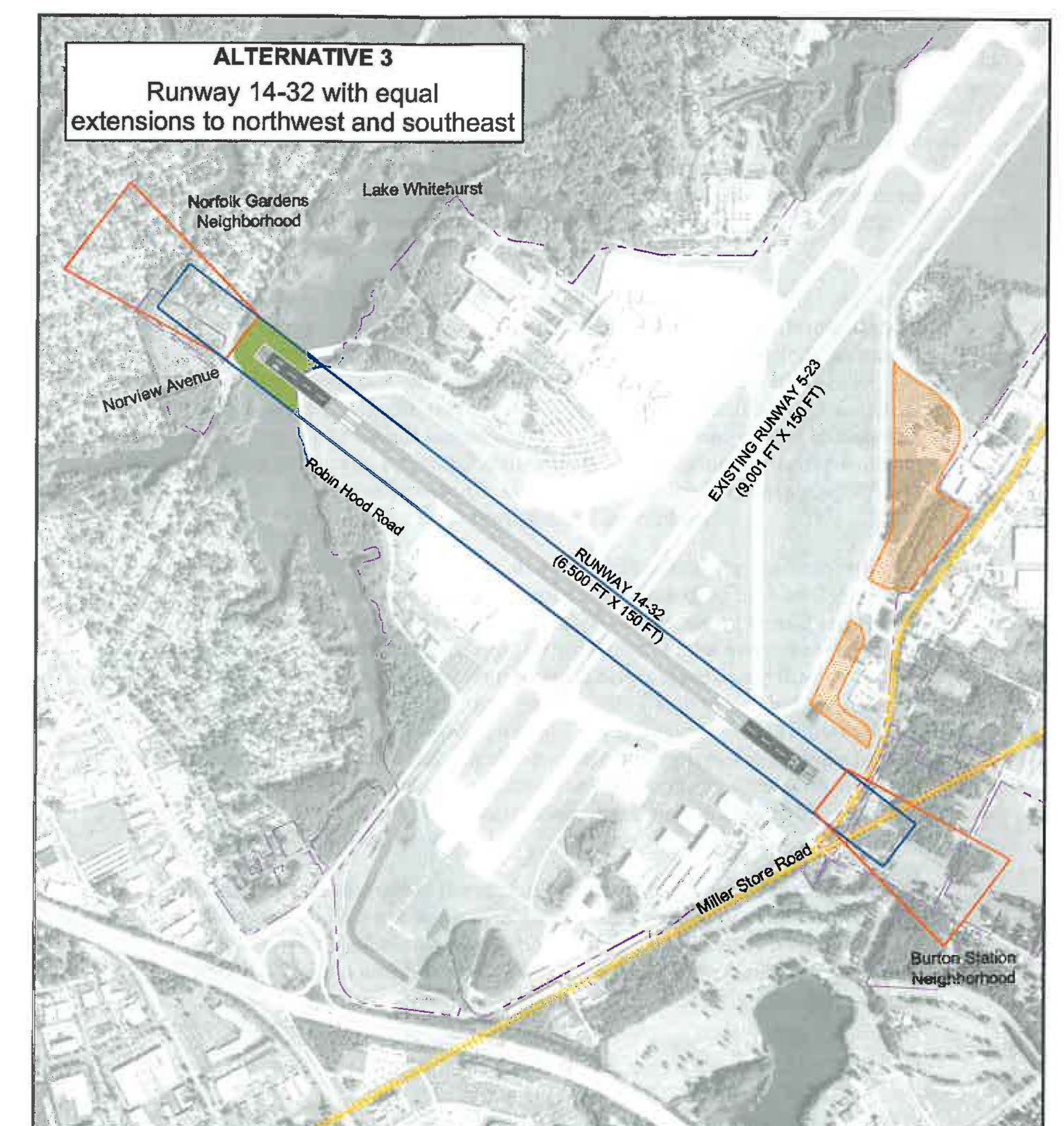


ALTERNATIVE 2
Runway 14-32 with extension to the southeast

LEGEND

- Airport property line
- Land available on-Airport for development
- Existing runway pavement
- New runway pavement
- Pavement to be removed
- Runway protection zone
- Runway safety area
- Norfolk Southern railroad line

Figure 4
SECONDARY RUNWAY ALTERNATIVE 2
Justification for Proposed Runway 5R-23L
Norfolk International Airport
December 2009
JACOBS CONSULTANCY
Airport Management Consulting



ALTERNATIVE 3
Runway 14-32 with equal extensions to northwest and southeast

LEGEND

- Airport property line
- Land available on-Airport for development
- Existing runway pavement
- New runway pavement
- Pavement to be removed
- Lake Fill
- Runway protection zone
- Runway safety area
- Norfolk Southern railroad line

Figure 5
SECONDARY RUNWAY ALTERNATIVE 3
Justification for Proposed Runway 5R-23L
Norfolk International Airport
December 2009
JACOBS CONSULTANCY
Airport Management Consulting

Construct new parallel runway to 6,500 feet in length and 150 feet in width (approximately 67 acres of fill in Lake Whitehurst). Decommission existing Runway 14/32.

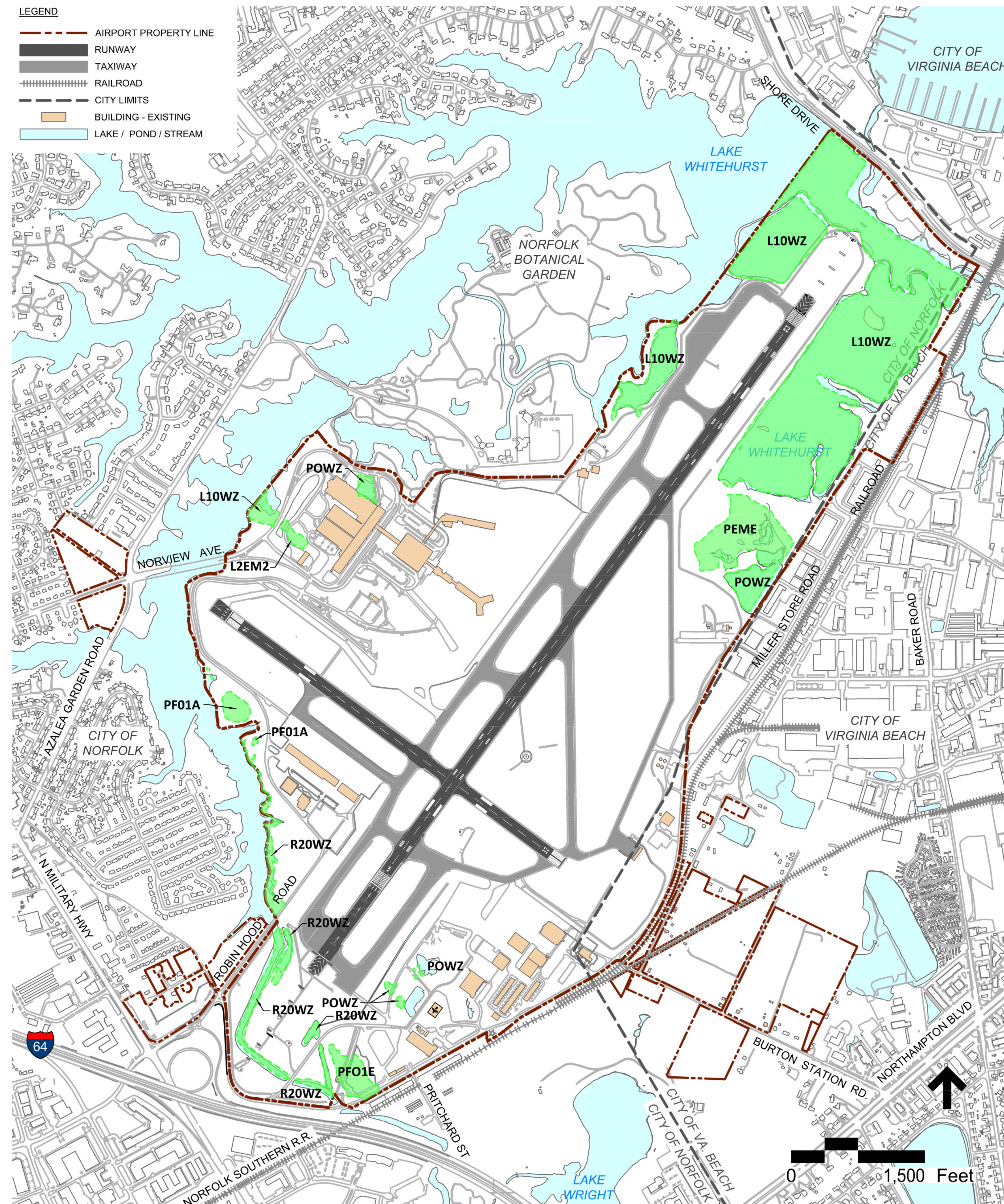
Extend Runway 14/32 to approximately 6,500 feet by extending the southeast end by 2,580 feet and removing 980 from the northwest end.

Extend Runway 14/32 equally on both ends to a total length of 6,500 feet.

Resources to be Evaluated in the EIS

- › Air Quality
- › Coastal Resources
- › Compatible Land Use
- › Construction Impacts
- › DOT Act Section 4(f)
- › Farmlands
- › Fish, Wildlife, and Plants
- › Floodplains
- › Hazardous Materials, Pollution Prevention, and Solid Waste
- › Historic, Architectural, Archaeological, and Cultural Resources
- › Light Emissions and Visual Impacts
- › Natural Resources and Energy Supply
- › Noise
- › Secondary (Induced) Impacts
- › Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks
- › Water Quality
- › Wetlands
- › Wild and Scenic Rivers

Existing Wetlands and Water Resources

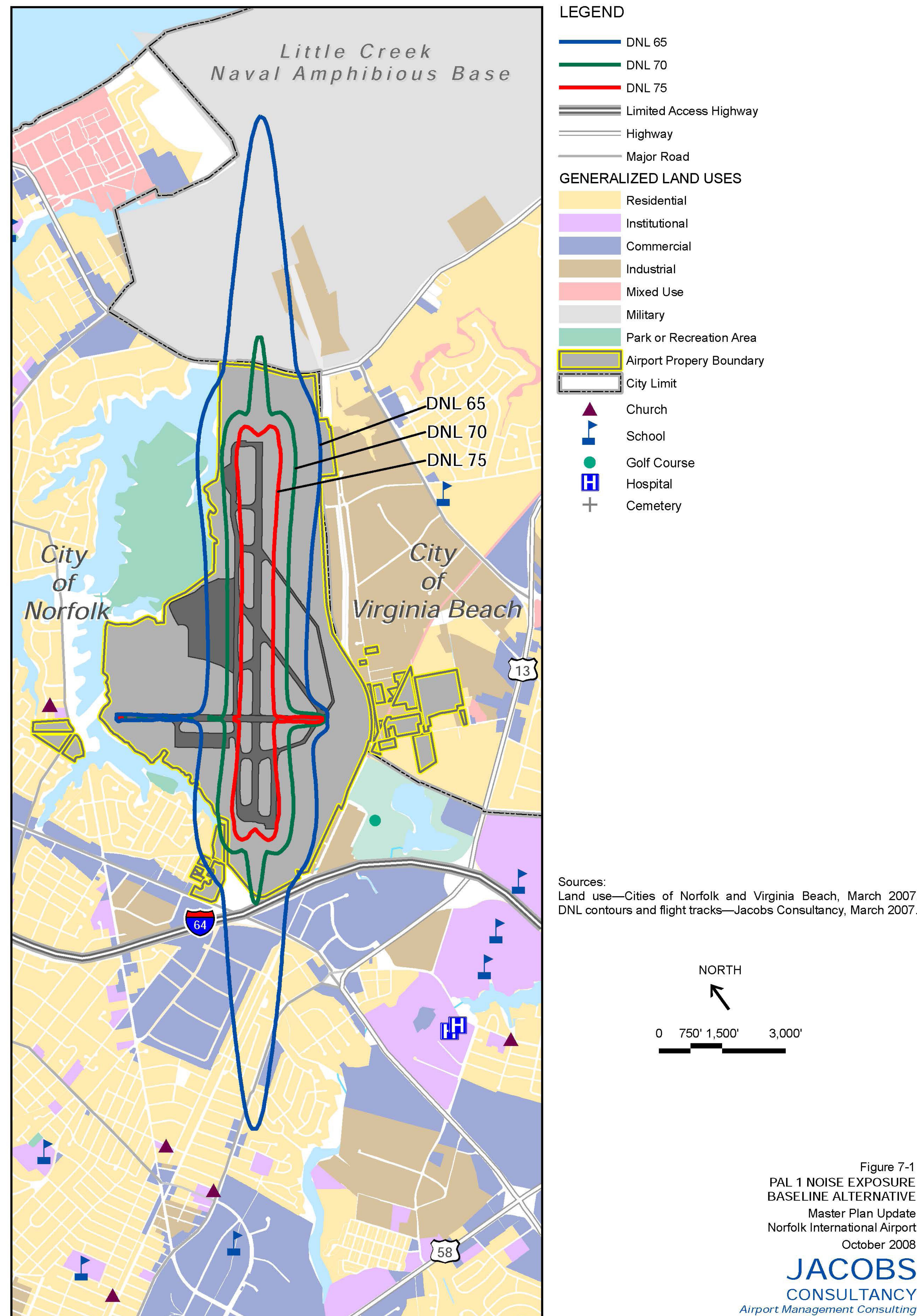


Wetland Identifiers

- POWZ Palustrine Open Water
intermittently exposed
- PEM1F Palustrine Emergent Persistent
semi-permanently flooded
- PEM1A Palustrine Emergent Persistent
temporarily flooded
- PEM2A Palustrine Emergent Non-Persistent
temporarily flooded
- PSS1Z Palustrine Scrub-Shrub Broad-leaved
Deciduous, intermittently flooded
- PSS1C Palustrine Scrub-Shrub Broad-leaved
Deciduous, seasonally flooded
- PSS3C Palustrine Scrub-Shrub Broad-leaved Evergreen
seasonally flooded
- PFO1A Palustrine Forested Broad-leaved Deciduous
temporarily flooded
- PFO1C Palustrine Forested Broad-leaved Deciduous
temporarily flooded
- PFO1E Palustrine Forested Broad-leaved Deciduous
seasonally flooded
- PFO4A Palustrine Forested Needle-leaved Evergreen
temporarily flooded
- PFO4F Palustrine Forested Needle-leaved Evergreen
semi-permanently flooded

Wetland Boundary Plan, R. Kenneth Weeks Engineers,
Sept. 26, 1994

Noise Analysis Inputs



- › Airport layout
- › Weather
- › Temperature
- › Time of day
- › Number of aircraft operations
- › Runway utilization and flight tracks
- › Aircraft profiles and performance data

Air Quality Assessment

Key Issues

- › Ozone “Maintenance” Area (8-hour, 1997 NAAQS)
- › Public Health & Welfare

Pollutants of Concern

- › Nitrogen Oxides (NO_x) & Volatile Organic Compounds (VOCs) as O₃-precursors

Assessment Methods

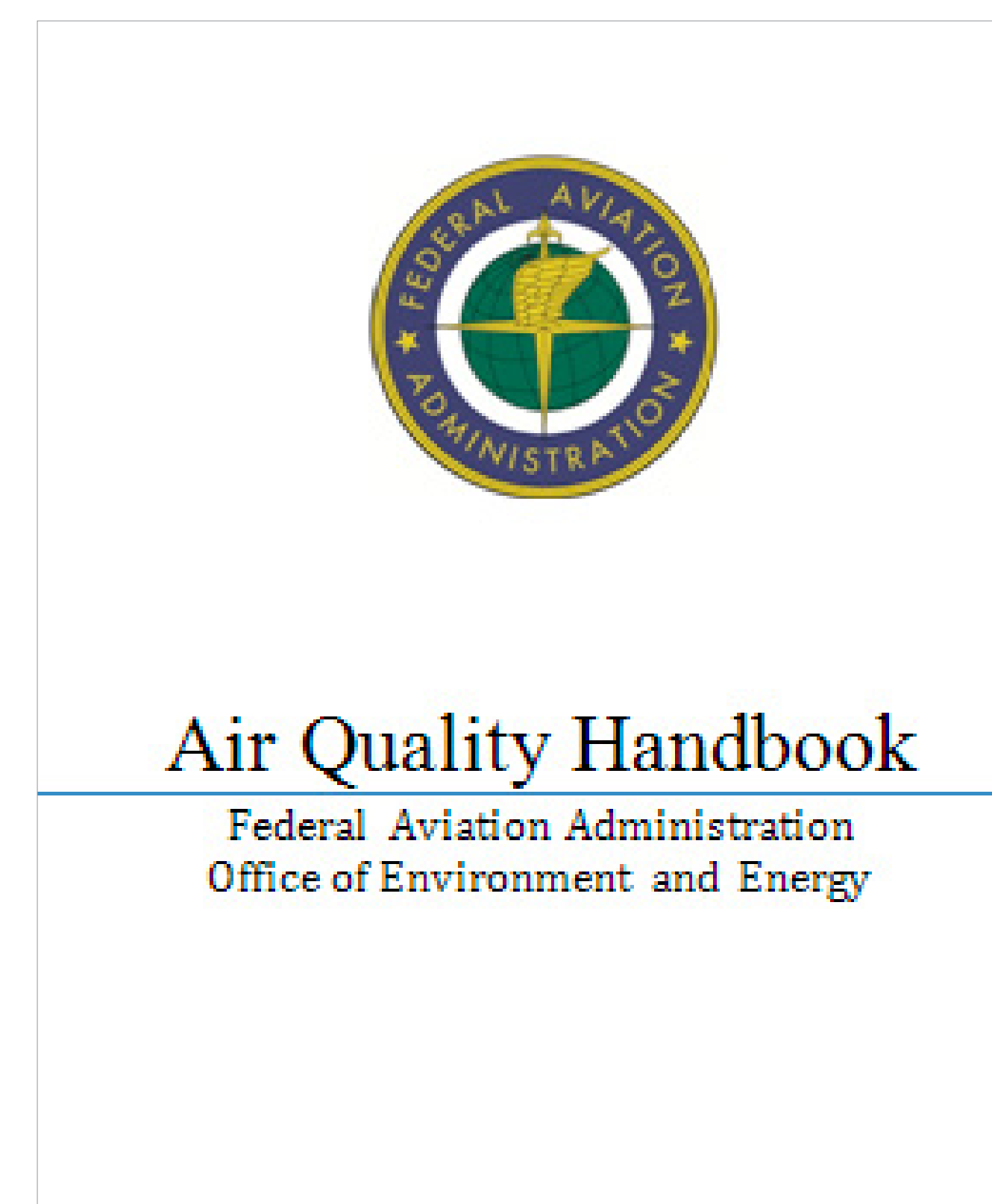
- › Operational & Construction Emissions
- › Criteria Pollutants, HAPs & GHGs
- › FAA- & EPA-Approved (AEDT, MOVES, NONROAD)

Analysis Results

- › Public Disclosure under NEPA
- › General Conformity under Clean Air Act
- › Appropriate Mitigation



Operational Emissions [© Norfolk International Airport]



Assessment
Guidelines

Next Steps

- › Close of scoping period:
August 3, 2015
- › Scoping Report to be developed
after scoping period closes
- › Final Purpose and Need Technical
Report: September 2015
- › FAA decision to proceed with
Phase 2 of the EIS process

