SHORT ENVIRONMENTAL ASSESSMENT FORM FOR
A REPLACEMENT AIR TRAFFIC CONTROL TOWER
AT LYNCHBURG REGIONAL AIRPORT

RS&H No. 222-2561-001

Prepared for:
City of Lynchburg

Prepared by:
RS&H

June 2014
Short Environmental Assessment Form for AIRPORT DEVELOPMENT PROJECTS

Airport Name: Lynchburg Regional Airport
Identifier: LYH

Proposed Project: Replacement Air Traffic Control Tower at Lynchburg Regional Airport

This Environmental Assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA official.

Marcus Brundage
FAA Washington ADO, Environmental Protection Specialist
This form is to be used only for limited types of projects. It is strongly recommended that you contact your local Environmental Protection Specialist (EPS) before completing this form. See instructions page.

APPLICABILITY

This Form can be used if the proposed project meets the following criteria:

1) It is not categorically excluded (see paragraphs 303 and 307-312 in FAA Order 1050.1E) or

2) It is normally categorically excluded but, in this instance, involves at least one extraordinary circumstance that may significantly impact the human environment (see paragraph 304 and the applicable section in Appendix of 1050.1E) or

3) The action is one that normally requires an EA at a minimum (see paragraph 506 in FAA Order 5050.4B) and

4) The proposed project must fall under one of the following categories of Federal Airports Program actions:

   (a) Approval of a project on an Airport Layout Plan (ALP).
   (b) Approval of federal funding for airport development.
   (c) Requests for conveyance of government land.
   (d) Approval of release of airport land.
   (e) Approval of the use of Passenger Facility Charges (PFC).
   (f) Approval of development or construction on a federally obligated airport.

If you have questions as to whether the use of this form is appropriate for your project, contact your local EPS BEFORE using this form.
Complete the following information:

**Project Location**

Airport Name: Lynchburg Regional Airport
Identifier: LYH
Airport Address: 350 Terminal Drive
City: Lynchburg  County: Campbell County  State: VA  Zip: 24502

**Airport Sponsor Information**

City of Lynchburg, Virginia
Point of Contact: Mark Courtney, Airport Manager
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1. **Introduction/Background:**

The City of Lynchburg, Virginia (the Airport Sponsor), has prepared this Short Environmental Assessment (EA) Form for on-airport, landside improvements in the western portion of the Lynchburg Regional Airport (the Airport) property. The Airport Sponsor proposes to site, design, and construct an Air Traffic Control Tower (ATCT) to replace the existing ATCT (Proposed Project). Section 2 of this Short EA Form provides details regarding the Proposed Project.

The Airport Sponsor owns and operates the Airport. The Airport is approximately five miles southwest of the City’s central business district and within Campbell County (see Attachment A: Exhibit A-1). The Airport encompasses approximately 872 acres and the Federal Aviation Administration’s (FAA’s) National Plan of Integrated Airport Systems (NPIAS) categorizes the Airport as a primary commercial service airport. The airfield is comprised of two runways:

- Runway 4-22 (primary runway) - 7,100 feet long by 150 feet wide and
- Runway 17-35 - 3,386 feet long by 75 feet wide.

The Airport plays a key role in central Virginia’s growth as a global gateway to the area’s international corporations, manufacturing plants, research and development firms, and educational institutions.1 According to the FAA’s Terminal Area Forecast (TAF), the Airport had approximately 78,600 total enplanements in 2013.2 According to the Airport Sponsor, there were 115,237 total operations in 2013.

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2. Project Description (List and clearly describe ALL components of project proposal including all connected actions). Attach a map or drawing of the area with the location(s) of the Proposed Action(s) identified:

The Airport Sponsor proposes to site, design, and construct a replacement ATCT that will provide Instrument Flight Rule (IFR) services, like the existing ATCT, and be suitable for a Part 139 Class I Airport. The existing ATCT operates under the Federal Contract Tower Program and plans call for the replacement ATCT to continue to operate under the existing arrangement. Section 3 of this EA explains why the proposed project is needed.

As shown in Exhibit A-2, the Proposed Project site is approximately 195 feet south of the existing ATCT on naturally elevated terrain, approximately 30 feet above the Airport’s airfield elevation of approximately 938 feet. The Proposed Project site is offset 975 feet west of Runway 4-22’s centerline and 1,800 feet from the approach end of Runway 22, as measured from the centerline.

The proposed control cab would have an eye height of 50 feet above ground level (AGL), while the overall height of the ATCT, including antennas and lightning rods, would be 75 feet AGL. The proposed eye height of the replacement IFR ATCT exceeds the height required to pass the line-of-sight critical angle of incidence as determined by the FAA’s Air Traffic Control Visibility Analysis Tool, but represents the lowest practical tower height consistent with incorporating required rooms and equipment. For comparison, the existing ATCT has an eye height of 45 feet AGL and overall height of approximately 60 feet AGL.

The proposed tower would provide controllers unobstructed lines-of-sight to all runways, taxiways, aircraft aprons, and segments of the Airport’s traffic patterns, with the exception of Taxiway G. Taxiway G is currently an uncontrolled area due to shadowing from General Aviation (GA) hangars.

The proposed ATCT’s site selection was based on both of the following criteria:

- construction of the replacement ATCT would not reduce the ability of a controller in the existing ATCT to monitor airport operating areas; and
- demolition of the existing ATCT building would not reduce the ability of controllers in the replacement ATCT to monitor airport operating areas.

The Airport Sponsor notes that a partial exception to the second criterion is needed due to an unavoidable obstruction of a portion of the approach end of Runway 17 that would occur during the demolition of the existing ATCT. To mitigate this situation, the Airport Sponsor could either temporarily close Runway 17-35 or temporarily displace the Runway 17 threshold by approximately 700 feet during the demolition of the existing ATCT.

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1 Under 14 CFR Part 139, FAA issues airport operating certificates to airports serving scheduled and unscheduled air carrier aircraft with more than 30 seats; airports serving scheduled air carrier operations in aircraft with more than nine seats but less than 31 seats; and airports the FAA Administrator requires to have a certificate. Part 139 Class I airports have three types of operations: scheduled large air carrier aircraft (30+ seats), unscheduled large air carrier aircraft (30+ seats), and scheduled small air carrier aircraft (10-30 seats).


3 The buildings causing the shadow are a flight school and storage hangar, which is depicted for future removal on the Airport’s approved Airport Layout Plan. This is not considered a connected action to the Proposed Project and, therefore, is not considered in this EA.
The existing ATCT’s access road and parking lot would provide vehicular access to and parking for the proposed replacement ATCT. A new sidewalk would provide pedestrian access from the parking lot to the proposed ATCT.

FAA Operations Engineering Support Group, Technical Service (Tech Ops) reviewed the location of the Proposed ATCT during the Lynchburg Regional Airport ATCT Siting Study and concluded some shadowing may occur to the signal from a Remote Transmitter Receiver (RTR) facility, located on the opposite side of the road from the Proposed Project, to segments of the airfield. The RTR facility houses a Remote Communications Outlet (RCO) for the Leesburg Flight Service Station (FSS), which relays radio transmissions from aircraft on the ground at the Airport to the FSS when the ATCT is closed (10:30 PM to 6:29 AM). Transmissions primarily involve pilots opening and closing flight plans, obtaining weather services, and receiving instrument flight plan clearances. The RTR also houses backup transmitters and receivers for local and ground operations of the existing ATCT. Therefore, the Airport Sponsor proposes to relocate the Leesburg FSS RCO to the replacement ATCT, including necessary rooftop antennae, to mitigate the potential shadowing effect of the replacement ATCT. Installing new equipment in the replacement ATCT involves installing new backup local and ground radio equipment, as the existing equipment is dated.

The control cab would initially accommodate two Air Traffic Control Specialist (ATCS) positions, but would have space for up to two additional working or supervisory positions. It would have a minimum of 230 square feet of walkable floor area (subtracting the console surfaces, stairwell, and small convenience center).

Based on the above information, and as shown in Exhibit A-2, the Proposed Project would involve the following, connected project activities and components:

- constructing and operating a replacement, 75-foot-tall ATCT (including antennas and lightning rods);
- potentially relocating the FSS RCO including necessary rooftop antennae due to possible shadowing from the proposed replacement ATCT;
- installing new equipment, including new backup local and ground radio equipment in the replacement ATCT;
- constructing a sidewalk to provide access to the replacement ATCT from the existing ATCT’s parking area;
- extending utility services to the replacement ATCT; and
- demolishing the existing ATCT.

Section 3 of this Short EA Form provides further details on the Purpose and Need for this Proposed Project.

Funding – According to engineering estimates, construction of the Proposed Project would cost approximately $3 million. Funding for the Proposed Project could potentially come from a combination of the following sources: FAA, Virginia Department of Aviation, passenger facility charge (PFC) funds, and/or other local funds.

Schedule – Construction is expected to occur over approximately a six-month period, beginning May 2015.

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3. Project Purpose and Need:

FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, requires an EA to fully address and describe the Purpose and Need for a proposed project. The Purpose and Need identifies the problem facing the Airport Sponsor (the “Need” for action) and the proposed solution to the problem (the “Purpose” of the action). The following paragraphs describe the Purpose and Need.

**Purpose** – The Airport Sponsor proposes to construct a replacement ATCT at the Airport to improve the functional and operational capabilities of the service provided by the ATCT. The replacement ATCT would meet the FAA security requirements in FAA Orders 1600.69B\(^7\) and 6480.7E\(^8\), improving the safety of the ATCS and Airport users.

**Need** – The Airport currently has an operational ATCT situated atop a three-story office building, which previously housed FAA offices and equipment. The ATCT, which opened in 1963, has passed its useful life. According to the U.S. Department of Transportation, the average ATCT facility has an expected useful life of approximately 25 to 30 years.\(^9\) The building experiences high maintenance costs, is functionally obsolescent, does not meet current FAA security requirements, and contains asbestos.

According to the Airport Sponsor, the operational cost (e.g., utilities, maintenance) of the existing ATCT building is approximately $40,000 per year. However, the Airport receives approximately $37,000 in rent. This results in a net loss of approximately $3,000 per year. Additionally, the Airport Sponsor has spent over $40,000 in nonrecurring maintenance costs on the existing ATCT building since 2009. This includes repairs to leaks, multiple upgrades to the heating, ventilation, and air conditioning (HVAC) system, roof replacement of the control cab, and carpet replacement. These costs do not include utility costs, or the time, cost, and effort from Airport staff.

The Airport Sponsor has also listed the following problems with the existing ATCT building:
- all window panels installed in the office building’s brick framing leak;
- the generator room experiences leaks through its walls;
- a 2.5-ton HVAC unit needs to be replaced;
- the building is not well suited for electronic equipment used today; and
- the three bathrooms need to be completely remodeled to meet the American Disabilities Act of 1990 (ADA) standards.

The existing ATCT building is also too large for its current use. Today, the building functions solely as an ATCT. Previously, the building housed National Weather Service (NWS), Flight Service Station (FSS), and FAA offices. However, those offices have been relocated and most of the office space remains unused. Additionally, the Airport Sponsor has noted the building does not meet FAA security requirements.\(^{10}\) To meet those requirements, the doors of the existing ATCT would need to be changed from glass to steel and additional fencing and gates added.

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\(^8\) FAA Order 6480.7E, Airport Traffic Control Tower and Terminal Radar Approach Control Facility Design Policy, August 11, 2004.
The presence of asbestos-containing materials in the building significantly increases the costs of any major repair and renovation projects to the existing structure. Attachment B contains the completed FAA Safety and Environmental Certification Checklist and supporting material regarding the presence of asbestos in the existing building. It is important to note the undisturbed asbestos and asbestos not in a friable state within the building does not pose a risk to controllers using the existing ATCT.

4. Describe the affected environment (existing conditions) and land use in the vicinity of project:

This Short EA Form establishes a project study area to characterize the existing conditions and areas of potential environmental impacts resulting from the Proposed Project. The 2-acre project study area consists only of maintained grassy areas and wholly lies within the Airport’s property boundaries (see Exhibit A-3). The project study area includes the limit of disturbance for the construction of the Proposed Project and its project “laydown area”. The limit of disturbance within the project study area is approximately one-half acre.

Per FAA Order 5050.4B, paragraph 706.e, this EA does not address the Coastal Zone, Section 4(f) properties, Prime and Unique Farmlands, Floodplains, Wetlands, or Wild and Scenic Rivers because the Proposed Project would not affect those resources.

Affected Environmental Resources

Air Quality: The project study area, located in Campbell County, is an “attainment” area for all criteria pollutants having a National Ambient Air Quality Standard (NAAQS).11

Compatible Land Use: According to the 2009 – 2024 Campbell County Comprehensive Plan, the project study area is located in a medium- to high-density commercial land use category.12 The surrounding area is a mix of medium- to high-density residential, urban development, commercial, and transitional land use categories. The closest residential area is approximately one-quarter mile northwest of the Proposed Project. In order to ensure compatible land uses within the residential areas north and west of the Airport, the City of Lynchburg has implemented an Airport Safety Overlay District to regulate and restrict the height of structures within the departure and approach paths of the Airport.13

The majority of the Airport’s property, including the sites of the Proposed Project and its alternatives, is mowed and maintained.

The western portions of the Airport’s property and an area less than one-tenth-mile from the Proposed Project site have dense vegetation and trees, which may attract wildlife. No other potential wildlife hazard attractants occur within four miles of the Airport.

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Fish, Wildlife, and Plants: According to the Virginia Department of Conservation and Recreation (DCR), natural heritage resources\textsuperscript{14} have not been documented in the project study area (see Attachment C-2, letter dated February 25, 2014).

According to the United States Fish and Wildlife Service (USFWS) Virginia On-line Project Review Process, the Smooth coneflower (Echinacea laevigata), an endangered plant, has the potential to occur within the project study area.\textsuperscript{15} However, the project study area does not contain any critical habitat for that species.\textsuperscript{16}

The bald eagle is no longer a USFWS-listed species; however, it is protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Act. Bald eagles and/or bald eagle nests have not been observed in the project study area. According to the Virginia Bald Eagle Nest Locator, the project study area is not located near any Bald Eagle nests.\textsuperscript{17}

Hazardous Materials, Pollution Prevention, and Solid Waste: According to Airport personnel, the existing ATCT building contains asbestos.\textsuperscript{18} According to the United States Environmental Protection Agency (USEPA), asbestos is a mineral fiber commonly used in a variety of building construction materials for insulation and as a fire retardant.

Historical, Architectural, Archaeological, and Cultural Resources: According to Virginia Department of Historic Resources (VDHR) archive search, the project study area does not include any architectural resources or historic districts (see Attachment G). In addition, there are no properties on the National Register of Historic Places (NRHP) within the project study area.

As previously described, the existing ATCT building is over 50 years old. Preliminary review of the four criteria listed in 36 Code of Federal Regulations (CFR), Section 60.4 regarding resources eligible for the National Register of Historic Places shows the existing ATCT building:

\begin{itemize}
    \item is not associated with an important event or trend;
    \item is not associated with an important person;
    \item does not have a significant design or construction; and
    \item does not convey significant information.
\end{itemize}

FAA coordination with the Virginia Department of Historic Resources (VDHR) regarding the ATCT’s eligibility and the undertaking’s effects on the ATCT will occur during the comment period for this Draft EA in accordance with Section 106 of the National Historic Preservation Act. The final EA will provide the results of that consultation.

Water Quality: The project study area does not contain any surface waterbodies. The closest waterbodies are an un-segmented portion of Watershed H03, approximately one-half mile northwest

\textsuperscript{14} Natural heritage resources are defined as habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.


of the project study area, and an un-segmented portion of Watershed L29, approximately three-quarter mile south of the project study area.  

Burton Creek (State List I.D. H03R-05-BEN) and Flat Creek (State List I.D. L29R-01-BEN), approximately one and one-quarter miles north and one and three-quarter miles south of the project study area, respectively, are the closet impaired waterbodies to the project study area. The USEPA identifies these waterbodies as impaired based on benthic macroinvertebrate bioassessments. These creeks are included on the Virginia Department of Environmental Quality’s (DEQ) 2012 list of impaired waters needing cleanup plans.

The Airport is within the Upper Roanoke River Watershed and the Middle James-Buffalo Watershed. The project study area is within the Upper Roanoke River Watershed. The project study area is not located over a designated Sole Source Aquifer.

5. Alternatives to the Project: Describe any other reasonable actions that may feasibly substitute for the proposed project, and include a description of the “No Action” alternative. If there are no feasible or reasonable alternatives to the proposed project, explain why (attach alternatives drawings as applicable):

In 2014, the Lynchburg Regional Airport ATCT Siting Study (Siting Study) was completed for the Airport in which three alternative sites, including the Proposed Project site, for the replacement ATCT were analyzed (see Attachment D for excerpts from the Siting Study). The sites were determined based on the guidance provided in FAA Order 6480.4B, Airport Traffic Control Tower Siting Criteria. These criteria include: visual performance; Terminal Instrument Procedures (TERPS); Part 77 surfaces; sunlight/daylight glare; artificial lighting; atmospheric conditions; industrial municipal discharge; site access; interior physical barriers; and security.

Two alternative sites to the Proposed Project are described in further detail in the following paragraphs. A refurbishment alternative is also considered that was not part of the 2014 Siting Study. Refer to Section 2 for a description of the Proposed Project (referred to as Site 1 in the ATCT Siting Study). See Exhibit A-4 for the location of each alternative site. Alternative Sites 2 and 3 would include the construction of a new parking lot, extension of utilities, and demolition of the existing ATCT.

Alternative 1 Refurbishment: Under the refurbishment alternative, improvements would be made to enable the existing ATCT and building to operate more efficiently than it currently does. This would include, but is not limited to:

- replacing window panels in the brick-framed building supporting the tower cab to eliminate existing leaking and deteriorating windows;
- sealing the walls of the room housing the cab’s emergency generated to prevent leaks that could harm the operation of this vital equipment or cause its rapid deterioration;
- replacing the HVAC system in accordance with FAA standards for controller working conditions and to sustain the conditions needed to operate the climate-sensitive, electronic equipment controllers use to safely and efficiently manage the Airport’s air traffic;
- replacing the building and tower cab’s electrical system to maintain and ensure proper operation of modern air traffic control equipment;
- remodeling the building’s bathrooms to meet Americans with Disabilities Act requirements;
- installing additional fencing and gates to meet current FAA security requirements for ATCTs per FAA Orders 1600.69B and 6480.7E; and
- installing new steel doors to replace the existing glass doors to meet current FAA security requirements for ATCTs per FAA Orders 1600.69B and 6480.7E, including altering portions of the building near the doors to accommodate the new security measure.

The renovations to the existing building would provide a secure, efficient work area for the controllers working in the tower cab and the equipment they use to ensure safe, efficient, airport operations. All of the renovations would require disturbing asbestos. As a result, the contractor would need to meet USEPA and Virginia asbestos abatement, removal, handling, and disposal requirements (see Section 6(E) of this Short EA Form).

During the 12 to 24-month refurbishment period, the controllers would need to manage the Airport’s air traffic from a different location since the water, power, and HVAC systems of the existing tower would be disrupted due to removal of the old systems and installations of new ones. Removal of asbestos from controller-occupied areas would also require the controllers to leave the affected areas. As a result, the Airport Sponsor would need to lease a portable ATCT.

Based on a rough order of magnitude (ROM) estimate of rehabilitation and associated costs, the refurbishment of the existing building and tower cab would be approximately $2.8 million.\(^{26}\) Additionally, the cost to lease a portable, temporary ATCT for the rehabilitation period would be approximately $200,000.\(^{27}\) This cost estimate does not include any utilities that would be needed to support the portable ATCT’s equipment or to maintain controller working conditions. Overall, the estimated cost to complete the refurbishment alternative would be approximately $3 million.

Alternative Site 2: Site 2 is approximately 415 feet south/southwest of the existing ATCT on a natural area of high terrain, rising approximately 30 feet above the Airport’s airfield elevation. This site is 1,005 feet west of Runway 4-22’s centerline and 2,010 feet from Runway 22’s approach end, as measured along the centerline. The control cab of the replacement ATCT at this site would have an eye height of 50 feet AGL, with an overall height of 75 feet AGL. As with the Proposed Project, Taxiway G would be shadowed by GA hangars. Additionally, some shadowing of the signal from

\(^{26}\) Costs are based on industry-recognized sources, such as RS Means, and refined based on RS&H’s experience and records of bid tabulations of like projects in scope and scale. The estimates are given as the cost to replace or repair all primary building components within a single rehabilitation construction project.

\(^{27}\) The cost to lease a portable, temporary ATCT is based on an estimate from a portable ATCT supplier.
the RTR facility across the street to segments of the airfield may occur. Therefore, the Leesburg FSS RCO would be relocated to the replacement tower, including necessary rooftop antennae. New equipment, including new backup local and ground radio equipment, would also be installed in the replacement ATCT at Site 2. The replacement ATCT at Site 2 would not impact any existing or planned future instrument procedures for the Airport.

**Alternative Site 3:** Site 3 is located between the GA facilities and Taxiway B on the west side of the Airport. This site is approximately 710 feet west of Runway 4-22’s centerline and approximately 3,830 feet from the end of Runway 4. The area is at approximately the same elevation as the Airport’s airfield. The control cab of the replacement ATCT at Site 3 would have an eye height of 59 feet AGL, with an overall height of 85 feet AGL. As with the Proposed Project and Site 2, Taxiway G would be shadowed by GA hangars. New equipment, including new backup local and ground radio equipment, would also be installed in the replacement ATCT at Site 3. The replacement ATCT at Site 3 would not impact any existing or planned future instrument procedures for the Airport.

**No-Action Alternative:** Under the No-Action Alternative, the Airport Sponsor would not build the proposed replacement ATCT and the existing ATCT would remain in operation. The Airport Sponsor would continue to maintain the building and provide continuous repairs and improvements, as needed.

**Explanation**

**Alternative 1 Refurbishment:** The 51-year-old ATCT (and building) has passed its useful life as defined by the USDOT Inspector General’s 2008 audit of ATCTs (i.e., 25-30 years). As a result, the extensive renovations previously summarized are necessary to address the existing facility’s continually deteriorating condition. The short-term construction costs of Alternative 1 would be similar to those of the Proposed Project. However, the long-term operating costs of Alternative 1 would place long-term demands on the Airport Sponsor’s operating budget. The Airport Sponsor would continue to pay for costs to maintain the unused office space, as there are no prospective tenants who would occur the space to offset those costs. While the Airport Sponsor recognizes the refurbished building would have lower maintenance costs than the existing building, those costs would exceed those that the Airport Sponsor would incur to maintain the Proposed Project’s new tower. Financing the maintenance of an unoccupied building larger than needed to support the refurbished tower during its 25 to 30-year useful life would strain the Airport Sponsor’s operating budget. As a result, the cost of Alternative 1 would exceed that of the Proposed Project of the long term.

Compared to the Proposed Project, Alternative 1 would result in similar asbestos-related environmental impacts. Therefore, Alternative 1 and the Proposed Project would require the same handling and abatements measures for hazardous materials. Although Alternative 1 would not disturb the maintained grassy area the Proposed Action would affect, this is not a critical factor because the area the Proposed Action would disturb does not affect any sensitive or specially-protected resources.

Overall, based on the provided cost estimates, Alternative 1 is not a financially prudent or reasonable alternative. Although the Proposed Project and Alternative 1 have similar construction
costs, Alternative 1 would place a long-term budgetary strain on the Airport Sponsor compared to the Proposed Project.

In addition, Alternative 1 is not an environmentally sustainable alternative. Sustainable alternatives are based on sound environmental, economic, and social factors. Environmentally, Alternative 1 is unacceptable due to the energy and other natural resources used to maintain a building far larger than needed to support the refurbished tower cab over the long-term. Economically, Alternative 1 would continue to place an unacceptable economic burden on the Airport Sponsor. Therefore, Alternative 1 is not carried forward for environmental analysis.

**Alternatives 2 and 3:** A Comparative Safety Assessment (CSA) was conducted as part of the 2014 Siting Study. The CSA compares the risks associated with each alternative site as the site to replace the existing ATCT as they relate to airport operations and human safety. The CSA identified the existing ATCT as a sight barrier to the Proposed Project site, Alternative Site 2, and Alternative Site 3. Demolishing the existing ATCT would mitigate the effect. Additionally the CSA identified the Proposed Project’s and Alternative Site 2’s potential interference with communication equipment (i.e., the Leesburg FSS RCO). Therefore to eliminate this issue, this equipment would be relocated to the replacement ATCT.

The CSA also identified additional hazards associated with Alternative Sites 2 and 3, as summarized below.

Alternative Site 2 would have obstructed views of the hold short line for Taxiway H in addition to the shadowing existing GA hangars cause on Taxiway G. Although, the Taxiway H hazard was determined to be a minor, remote low-risk hazard with acceptable existing controls in place, it has an additional risk when compared to the Proposed Project. Therefore, Alternative Site 2 is not carried forward for environmental analysis because it is not a prudent and reasonable alternative.

Controllers using an ATCT at Alternative Site 3 would experience the same shadowing of Taxiway G as described in the narrative about the Proposed Project and Alternative 2. In addition, Alternative Site 3 would penetrate the 14 CFR Part 77 surfaces, specifically the 7:1 surface. This Alternative would also cause controllers to experience an obstructed view of Runway 17-35 and the taxiway system north of Taxiway B. This hazard was determined to be a probable, high-risk hazard, which could be mitigated by closing Runway 17-35. While closing Runway 17-35 would remove the hazard, this is not a viable option for the efficiency of the Airport’s operations. Therefore, Alternative Site 3 is not carried forward for environmental analysis because it is not a prudent and reasonable alternative.

**No-Action Alternative:** The No-Action Alternative does not meet the stated Purpose and Need for the Proposed Project. As discussed in the Section 3 of this Short EA Form, the existing ATCT has surpassed its useful life, as defined by the USDOT. Its continued maintenance and operation would be an unwise use of the Airport’s budget. However, the No-Action Alternative would avoid any potential environmental impacts associated with implementation of the Proposed Project.

Although the No-Action Alternative does not meet the Purpose and Need of this project, this Short EA Form addresses the Alternative’s environmental consequences in Section 6. The EA does so to

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fulfill FAA’s obligations under NEPA and to provide an environmental baseline to allow FAA to compare the environmental effects of the Proposed Project with those of the No-Action Alternative.

6. Environmental Consequences – Special Impact Categories (refer to the Instructions page and corresponding sections in Appendix A of 1050.1E and the Airports Desk Reference for more information and direction. The analysis under each section must comply with the requirements and significance thresholds as described in the Desk Reference).

(A) AIR QUALITY (Please note this analysis must meet requirements for both NEPA review and Clean Air Act (CAA) requirements).

**Clean Air Act**

(a) Is the proposed project located in a nonattainment or maintenance area for the National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act and does it result in direct emissions (including construction emissions)? (If Yes, go to (b), No, go to the NEPA section below.)

**No.** As described in Section 4 of this Short EA Form, the Proposed Project is located in an attainment area for all NAAQS established under the Clean Air Act. As a result, a General Conformity Determination is not needed.

Construction of the Proposed Project would cause temporary increases in carbon monoxide (CO), volatile organic compounds (VOC), nitrous oxides (NO\(_X\)), sulfur dioxide (SO\(_2\)), and particulate matter (PM\(_{10}\) and PM\(_{2.5}\)) emissions as noted in Table 1. However, the increases would not exceed any NAAQS. As a result, the Project would not significantly affect air quality or the area’s attainment status (see Section 6(A)(Clean Air Act)(c)).

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*\(^{a/b}\): Results presented in tons.  
\(^{a/b}\): Assumed construction schedule is 6 months; therefore, it is assumed that criteria pollutant emissions would occur in one calendar year.  
Source: RS&H, 2014

(b) Is the proposed project an “exempted action,” under the General Conformity Rule or Presumed to Conform (See FRN, vol.72 no. 145, pg. 41565)? (If Yes, cite exemption and go to NEPA section below; No, go to (c)).

**No.** The Proposed Project is not an “exempted action.”
(c) Would the proposed project result in a net total of direct and indirect emissions that exceed the threshold levels of the regulated air pollutants for which the project area is in non-attainment or maintenance? (Attach emissions inventory). (If Yes, consult with ADO).

No. A construction emission inventory for the Proposed Project was prepared, using available information, in order to estimate temporary construction-related emissions. As previously noted, Table 1 presents a summary of the results from the construction emission inventory (Attachment E of this Short EA Form provides information on the calculations, assumptions, and emission factors used in the inventory).

The construction emission inventory involves calculating estimated hourly usage of construction equipment, applying these hourly usages to 100% load factors and corresponding emission factors unique to each piece of construction equipment, and calculating emissions resulting from equipment delivery and worker commutes.

The vehicle mix, trip distances, and assumed travel speeds for material delivery, dump truck usage, and worker commute vehicles were input to the Emission Dispersion Modeling System (EDMS), the FAA preferred model for air quality analyses. To estimate emissions associated with on-road motor vehicles including haul trucks, deliveries, and vehicles used by construction workers, this analysis assumes the following:

- construction worker vehicle miles traveled (VMT) are calculated assuming 40 miles per work day (round trip);
- 1.25 employees per vehicle over the duration of the construction schedule;
- haul truck and workers assume an average vehicle speed of 40 miles per hour; and
- a work schedule of six months with an average of 10 workers working concurrently over the duration of the construction schedule.

Since construction would occur over six months, it is assumed that temporary criteria pollutant emissions resulting from construction of the Proposed Project would not be significant because they would not exceed the de minimis levels established for each of the criteria pollutants noted in Table 1. As a result, the Proposed Project would not significantly affect air quality in the project area.

NEPA
(a) Is the airport’s activity levels below the FAA thresholds for requiring a NAAQS analysis? (If Yes, document activity levels and go to Item B, No, go to (b)).

Yes. In accordance with FAA and the Environmental Protection Agency (EPA) guidance from the Air Quality Procedures for Civilian Airports and Air Force Bases, a National Ambient Air Quality Standards (NAAQS) analysis is only required when general aviation operations and air taxi activity levels exceed 180,000 operations, or there are more than 1.3 million enplanements per year. According to the FAA’s Terminal Area Forecast (TAF), the Airport had approximately 78,600 total enplanements in 2013. According to the Airport Sponsor, there were 115,237 total operations in 2013. The Proposed Project would not alter the total number of operations or enplanements. Therefore, the Airport’s activity level is below the FAA threshold requiring a NAAQS analysis.

Note: Most conservative de minimis levels for the above criteria pollutants are: CO 100 tons; VOC 10 tons; NOx 10 tons; SO2 100 tons; PM10 70 tons; PM2.5: 100 tons. Source: USEPA, http://www.epa.gov/air/genconform/deminimis.html, accessed February 2014.

(b) Do pollutant concentrations exceed NAAQS thresholds? (Attach emissions inventory).

**No.** See Section 6(A)(Clean Air Act)(c) and Section 6(A)(NEPA)(a) of this Short EA Form, and Table 1 for the construction emissions.

(c) Is an air quality analysis needed with regard to state indirect source review?

**Not applicable.** See Section 6(A)(NEPA)(a) of this Short EA Form.

**(B) BIOTIC RESOURCES**

Describe the potential of the proposed project to directly or indirectly impact plant communities and/or the displacement of wildlife. (This answer should also reference Section 6, Water Quality, if jurisdictional water bodies are present).

The Proposed Project would occur entirely on Airport property and on land currently mowed and maintained by the Airport Sponsor. As described in Section 6(S) of this Short EA Form, there are no water bodies within the project study area. Therefore, the Proposed Project would not directly or indirectly affect or displace wildlife or aquatic species. See Section 6(G) of this Short EA Form for the discussion regarding threatened and endangered species.

**(C) COASTAL RESOURCES**

(a) Would the proposed project occur in a coastal zone, or affect the use of a coastal resource, as defined by your state's Coastal Zone Management Plan (CZMP)? Explain.

**No.** The Proposed Project does not occur in a coastal zone.\(^{31}\) Therefore, implementation of the Proposed Project or No-Action Alternative would not affect the use of coastal resources.

(b) If **Yes**, is the project consistent with the State's CZMP? (If applicable, attach the sponsor's consistency certification and the state's concurrence of that certification).

**Not applicable.** See Section 6(C)(a) of this Short EA Form.

(c) Is the location of the proposed project within the Coastal Barrier Resources System? (If **Yes**, and the project would receive federal funding, coordinate with the FWS and attach record of consultation).

**No.** The closest CBRS unit is approximately 150 miles east of the project study area.\(^{32}\)

**(D) COMPATIBLE LAND USE**

(a) Would the proposed project result in other (besides noise) impacts that have land use ramifications, such as disruption of communities, relocation of residences or businesses, or impact natural resource areas? Explain.

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\(^{31}\) Virginia DEQ, What is the Virginia Coastal Zone Management Program, [http://www.deq.state.va.us/Programs/CoastalZoneManagement/DescriptionBoundary.aspx](http://www.deq.state.va.us/Programs/CoastalZoneManagement/DescriptionBoundary.aspx), accessed December 2013.

No. The Proposed Project would occur entirely on Airport property. Section 6(E) of this Short EA Form describes potential impacts to the surrounding areas from construction of the Proposed Project. However, these impacts would be temporary and minor.

Implementation of the Proposed Project would not require the relocation of residences or businesses.

Compared to the No-Action Alternative, the Proposed Project would not alter Airport operations or enplanements, and therefore, would not indirectly affect the surrounding community. Additionally, the Proposed Project would not affect natural resource areas (see Section 6(H) of this Short EA Form for further details) when compared to the No-Action Alternative.

(b) Would the proposed project be located near or create a wildlife hazard as defined in FAA Advisory Circular 150/5200-33, "Wildlife Hazards On and Near Airports"? Explain.

Yes. As described in Section 4 of this Short EA Form, there is an area of dense vegetation approximately three-quarters of a mile west of the project study area which may attract wildlife. However, compared to the No-Action Alternative, implementation of the Proposed Project would not create any additional wildlife hazards as defined in FAA Advisory Circular 150/5200-33B.

(E) CONSTRUCTION IMPACTS

Would construction of the proposed project increase ambient noise levels due to equipment operation; degrade local air quality due to dust, equipment exhausts and burning debris; deteriorate water quality when erosion and pollutant runoff occur; and/or disrupt off-site and local traffic patterns? Explain.

Yes, temporarily.

Noise: Noise generated by construction equipment would vary depending on the equipment type, model, operational mode, duration of the operation, and specific type of work in progress. However, impacts resulting from temporary construction noise would be localized on the Airport. Noise sensitive land uses (i.e., residential land uses) are located approximately one-quarter mile northwest of the project study area. However, no significant impacts to those land uses is expected since construction would occur during the daytime and would be localized to the project study area.

Air Emissions: Construction of the Proposed Project has the potential to cause short-term effects on ambient air quality. Emissions would occur due to disturbing land (particulate dust emissions), motor vehicles accessing the construction site and traversing disturbed grounds, and direct emissions from construction equipment. Short-term emissions associated with the combustion of hydrocarbons, such as diesel fuel would be minor. Table 1 shows there would be no significant air quality impacts to surrounding areas. Fugitive dust emissions would also be temporary and limited to a relatively small area on Airport property. Through the use of Best Management Practices (BMPs) and sustainable measures (see Section H of this Short EA Form), the Proposed Project is not anticipated to exceed de minimus levels and would not significantly affect the air quality of the region. See Section 6(A)(Clean Air Act)(c) and Attachment E of this Short EA Form for the construction emissions inventory.

Hazardous Material: Construction of the Proposed Project would include the demolition of the existing ATCT building. The building potentially contains asbestos, a hazardous material. As
described in Section 3 of this Short EA Form, asbestos can cause significant health problems if microscopic fibers are disturbed and become airborne and inhaled into the lungs of humans.

Asbestos does not pose significant harm when in good condition. However, the USEPA states asbestos can cause significant health problems if microscopic fibers become airborne and are inhaled into the lungs. This typically occurs when asbestos-containing materials are damaged or disturbed by repair, remodeling, or demolition activities.

To address the potential presence of asbestos in the building housing the existing ATCT, the selected contractor would demolish the existing building in accordance with the 16 VAC 25-30-10 et seq., Regulations for Asbestos Emissions Standards for Demolition and Renovation Construction Activities and the Disposal of Asbestos-Containing construction Wastes,\(^\text{33}\) and 16 VAC 25-20, Regulation Concerning Licenses Asbestos Contractor Notification, Asbestos Project Permits, and Permit Fees.\(^\text{34}\) The contractor would also be required to comply with 40 Code of Federal Regulations (CFR) Part 61, Subpart M, National Emission Standard for Asbestos. The selected contractor would also follow the Virginia Occupational Safety and Health (VOSH) Asbestos Construction Standard, Part 1926.1101, which regulates asbestos exposure during demolition activities when materials containing asbestos are present and could be disturbed. The selected contractor handling and removing asbestos containing materials would be accredited by the Virginia Board for Asbestos, Lead, and Home Inspectors to engage in asbestos abatement, as required by the Virginia Department of Labor and Industry (DOLI). All asbestos-containing material waste would be properly disposed of (e.g., in sealed, impermeable bags and/or containers) in accordance with the previously listed asbestos regulations.

The Airport Sponsor and/or selected contractor would provide written notification to the Virginia DOLI as required by 16 VAC25-20 and 40 CRF Part 61 Subpart M. The Airport Sponsor and/or selected contractor would also receive a permit from the Virginia DOLI for asbestos removal and demolition. The permit would include information regarding the work schedules, asbestos-containing materials to be removed, work procedures, and waste transporter and disposal site information. Therefore, the demolition of the existing ATCT, as part of the Proposed Project, would not substantially affect air quality.

*Water Quality:* Construction of the Proposed Project has the potential to cause temporary water quality impacts. Rain events could result in stormwater runoff containing pollutants associated with construction activities. These pollutants could include sediments due to clearing activities, fuels, lubricants, and solvents associated with the maintenance and operation of construction equipment. The use of BMPs, permitting requirements, and sustainable measures (see Section 6(H) during construction activities would minimize temporary, construction-related water quality effects.

There could be minor, localized traffic disruptions to Airport Road and Hangar Road from construction vehicles entering and exiting the Airport Property. However, traffic disruptions would be temporary, relatively minor, and would not permanently degrade the Level of Service (LOS) of Airport Road or Hangar Road, or other roadways in the vicinity of the project study area.


(F) SECTION 4(f) RESOURCES
Does the proposed project have an impact on any publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance, or an historic site of national, state, or local significance? (If Yes, contact FAA, contact appropriate agency and attach record of consultation).

No. The Proposed Project is located entirely within the Airport’s property. The Proposed Project would not increase enplanements or operations at the Airport. Therefore, the sizes and shapes of the Airport’s noise contours would not change. Additionally, the Proposed Project would not affect air quality or the viewshed of the Airport. Implementation of the Proposed Project would not indirectly affect any Section 4(f) resources.

(G) ENDANGERED AND THREATENED SPECIES
(a) Would the proposed project impact any federally or state-listed or proposed, endangered, or threatened species (ESA) of flora and fauna, or impact critical habitat? (Attach record of consultation with federal and state agencies as appropriate).

No. The DCR found the Proposed Project would not affect documented state-listed plants or insects (see Attachment C-2, letter dated February 25, 2014). Additionally, as recommended by the USFWS Virginia Ecological Services Office (see letter dated January 27, 2014 in Attachment C-2 of this Short EA Form), the Virginia On-line Project Review Process was completed. The conclusion was reached that although there is the potential for the Smooth coneflower to occur within the project study area, there is no suitable habitat present (see Attachment F of this Short EA Form for the on-line project review process results). Therefore, implementation of the Proposed Project would not affect any federal or state-listed species compared to the No-Action Alternative.

Similarly, the project study area does not contain critical habitats as defined by the USFWS; the Proposed Project would not affect any critical habitat.

See Attachment F of this Short EA Form for the On-line Project Review Certification Letter from the USFWS which concurs with the “no effect” determination.

(b) Would the proposed project affect species protected under the Migratory Bird Act? (If Yes, contact FAA).

No. As described in Section 4 of this Short EA Form, there are no bald eagles or other protected bird nests near the project study area. Additionally, the Proposed Project would occur on land regularly mowed and maintained. Tree removal is not included as part of the Proposed Project. Therefore, the Proposed Project would not affect species protected under the Migratory Bird Act.

(H) ENERGY SUPPLIES, NATURAL RESOURCES AND SUSTAINABLE DESIGN
What effect would the proposed project have on energy or other natural resource consumption? (Attach record of consultations with local public utilities or suppliers if appropriate.)

Compared to the No-Action Alternative, aircraft operations would remain the same under the Proposed Project. The Proposed Project would not create major changes having measurable effects on local supplies of fuel, energy, or natural resources. Trucks and other construction equipment would consume common fuels as needed for construction purposes. Construction of the replacement
The selected contractor may use sustainable measures when constructing the Proposed Project, including:

- minimizing land disturbances to the maximum extent practicable;
- controlling stormwater runoff to ensure sedimentation of the area’s streams does not occur; or
- reducing criteria pollutant emissions resulting from construction activities.

Soil stabilization techniques could include:

- preserving existing vegetation;
- mulching cleared vegetation and distributing mulch to disturbed areas to control erosion and runoff;
- hydroseeding exposed soils;
- distributing cellulose-fiber mulch;
- using geotextile mats; or
- sodding.

Stormwater runoff controls could include installing:

- straw bale barriers;
- silt fences;
- sediment traps;
- sandbag barriers; or
- check dams.

Construction equipment emissions could be reduced by:

- regular maintenance of construction equipment;
- prohibiting idling of construction vehicles for longer than five minutes;
- stabilizing construction road entrances; or
- stabilizing vehicle staging areas or requiring vehicle parking only on paved areas.

The design phase of the replacement ATCT could include measures to have the building operate more energy efficiently. There may be opportunities to reduce waste, recycle, and reuse materials during the construction phase of the replacement ATCT. The Airport Cooperative Research Program (ACRP) Synthesis 10, *Airport Sustainability Practices*, and the Sustainable Aviation Guidance Alliance (SAGA) Database suggest sustainable design elements which could be used by the selected contractor for the design, construction, and operation of the Proposed Project.

**I ENVIRONMENTAL JUSTICE**

Would the proposed project have a disproportionate impact on minority and/or low-income communities? Consider human health, social, economic, and environmental issues in your evaluation. Explain.

*No.* The Proposed Project would occur entirely on Airport property and would not require the relocation of residences and/or businesses (see Section 6(D) of this Short EA Form). Direct impacts associated with the Proposed Project would occur on Airport property and would not directly affect
low-income or minority populations. Indirect impacts associated with the Proposed Project would not result in disproportionate adverse effects to low-income or minority populations.

(J) FARMLANDS
Does the project involve acquisition of farmland, or use of farmland, that would be converted to non-agricultural use and is protected by the Federal Farmland Protection Policy Act (FPPA)? (If Yes, attach record of coordination with the Natural Resources Conservation Service (NRCS), including form AD-1006.)

No. There are no soils classified as farmland within the project study area (see Attachment C-2, NRCS letter dated January 10, 2014). The Proposed Project would occur entirely on Airport property and therefore, would not require the acquisition or use of farmland.

(K) FLOODPLAINS
(a) Would the proposed project be located in, or would it encroach upon, any 100-year floodplains, as designated by the Federal Emergency Management Agency (FEMA)?

No. There are no floodplains within the project study area. Therefore, the Proposed Project would not be located in or encroach upon any 100-year floodplains.

(b) If Yes, attach the corresponding FEMA Flood Insurance Rate Map (FIRM) and describe the measures to be taken to comply with Executive Order 11988.

Not Applicable. See Section 6(K)(a) of this Short EA Form.

(L) HAZARDOUS MATERIALS
Would the proposed project involve the use of land that may contain hazardous materials or cause potential contamination from hazardous materials? (If Yes, attach record of consultation with appropriate agencies). Explain.

Yes. A portion of the Proposed Project would include the demolition of the existing ATCT building. The building potentially contains asbestos, a hazardous material. As described in Sections 3, 4, and 6(E) of this Short EA Form, asbestos can cause significant health problems if microscopic fibers become airborne and are inhaled into the lungs. This typically occurs when asbestos-containing materials are damaged or disturbed by repair, remodeling, or demolition activities. See Section 6(E) for the discussion regarding asbestos management during demolition activities and mitigation measures. As noted in Section 6(E) of this Short EA Form, demolition of the ATCT building would not cause significant, hazardous materials effects.

The construction of the Proposed Project would not affect the Airport’s fuel farm.

(M) HISTORIC, ARCHITECTURAL, ARCHEOLOGICAL OR CULTURAL PROPERTY
(a) Describe any impact the proposed project might have on any properties in or eligible for inclusion in the National Register of Historic Places. (Include a record of your consultation and response with the State or Tribal Historic Preservation Officer (S/THPO).)

As described in Section 4 of this Short EA Form, there are no NRHP-listed resources within the project study area. The existing ATCT building is over 50 years old; however, the building does not meet any of the four criterion listed in 36 CFR, Section 60.4 (see Section 4 of this Short EA Form) that could make the building eligible for listing in the NRHP. Therefore, the proposed undertaking would not affect any resources protected by Section 106 of the National Historic Preservation Act.

Compared to the No-Action Alternative, the Proposed Project would not change the number of operations at the Airport or the associated noise contours. Therefore, the Proposed Project would not indirectly affect any NRHP-listed or eligible resources.

(b) Describe any impacts to archeological resources as a result of the proposed project. (Include a record of consultation with persons or organizations with relevant expertise, including the S/THPO, if applicable).

As described in Section 4 of this Short EA Form, there are no known archeological resources within the project study area. Therefore, the Proposed Project would not directly affect any archeological resources.

If archeological resources are encountered during construction, all ground-disturbing activities within 25 feet of the discovered resource would stop immediately. The contractor would immediately contact the City of Lynchburg, the VDHR, the FAA and the THPO. The City of Lynchburg would ensure a qualified paleontologist is called as soon as possible to assess the situation. Consultation would be conducted to seek recommendations for the treatment of the discovery.

Compared to the No-Action Alternative, the Proposed Project would not change the number of operations at the Airport or the associated noise contours. Therefore, the Proposed Project would not indirectly affect archeological resources.

(N) INDUCED SOCIOECONOMIC IMPACTS
Would the proposed project cause induced, or secondary, socioeconomic impacts to surrounding communities, such as change business and economic activity in a community; impact public service demands; induce shifts in population movement and growth, etc.? Explain.

No. The Proposed Project would be located entirely on Airport property and would not disrupt, divide, or relocate residences or businesses. The small number of construction workers would not adversely affect the project area’s traffic levels or community services.

The number of people working in the replacement ATCT would not be significantly different compared to the No-Action Alternative. As described in Section 4 of this Short EA Form, the control cab of the replacement ATCT would initially accommodate two ATCS positions, with space for up to two more working or supervisory positions.

Therefore, implementation of the Proposed Project would not change the area’s business and economic activity, impact public service demands, or cause shifts in population movement and growth.
(O) LIGHT EMISSIONS AND VISUAL EFFECTS
Would the proposed project have the potential for airport-related lighting impacts on nearby residents? Explain.

No. The replacement ATCT would be constructed on Airport property. The light emitted from the ATCT would be visible during dark hours (i.e., after sunset). The proposed replacement ATCT would have an overall height of 75 feet AGL and would be lighted with red FAA L-810 obstruction lighting in accordance with FAA Advisory Circular (AC) 70/7460-1K, Obstruction Marking and Lighting. This light is low emitting and, therefore, would not impact local residential areas. Parking lot lighting and light emitted from the interior of the proposed replacement ATCT would not impact residential areas surrounding the Airport.

Residential areas approximately one-quarter mile northwest of the project study area would be able to see the proposed replacement ATCT. However, this would not differ significantly from the No-Action Alternative, as residents can currently see the existing ATCT. The overall height of the replacement ATCT would be approximately 15 feet higher than the existing ATCT. The proposed replacement ATCT would be consistent with Airport operations and the overall appearance of the facility. Therefore, implementation of the Proposed Project is not anticipated to visually affect the surrounding area.

(P) NOISE
Will the project, when compared to the No Action alternative for the same timeframe, cause noise sensitive areas located at or above DNL 65 dBA to experience a noise increase of at least DNL 1.5 dBA? (Use AEM as a screening tool and INM as appropriate. See Airports Desk Reference, Chapter 17, for further guidance).

No. Implementation of the Proposed Project would not increase Airport operations. Compared to the No-Action Alternative, the Proposed Project would not cause noise sensitive areas to experience a noise increase of DNL 1.5 dBA or more. Therefore, the shape and extent of the Airport’s aviation noise contours would not change.

Construction noise would be minimal and mostly occur on airport property during daylight hours. See Section 6(E) Construction Impacts.

(Q) SOCIAL IMPACTS
Would the proposed project cause an alteration in surface traffic patterns, or cause a noticeable increase in surface traffic congestion or decrease in Level of Service?

No. The Virginia Department of Transportation (VDOT) reviewed the early coordination letter for the replacement ATCT and does not see significant impacts to the existing transportation facilities resulting from implementation of the Proposed Project (see Attachment C-2, letter dated January 31, 2014).

Compared to the No-Action Alternative, the Proposed Project would not cause an alteration in surface traffic patterns, cause a noticeable increase in the surface traffic congestion, or decrease the LOS of surrounding roadways. The replacement ATCT would be accessed using the road currently used to access the existing ATCT (Hangar Road). Additionally, the number of people accessing the
replacement ATCT would not be significantly different than the number of people accessing the existing ATCT (see Section 6(N) of this Short EA Form).

(R) SOLID WASTE
Would the operation and/or construction of the project generate significant amounts of solid waste? If Yes, are local disposal facilities capable of handling the additional volumes of waste resulting from the project? Explain.

No. Construction of the Proposed Project would cause temporary increases in construction debris and solid waste. Removing and disposing organic and inorganic materials and vegetation during land disturbance and excavation would occur during construction of the new ATCT. Construction debris due to demolition of the existing ATCT building would also occur.

The Campbell County Landfill (now known as Livestock Road Regional Landfill) is anticipated to have sufficient capacity to handle the project-related waste noted above. The selected contractor could use separate dumpsters for recyclable building material (e.g., scrap metal) to minimize construction and demolition waste sent to the landfill, as recommended in Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance. This would be determined prior to construction and demolition activities.

The operation of the Proposed Project would not cause an increase in personnel, operations, or enplanements at the Airport. As a result, the Proposed Project would not increase the Airport’s existing municipal or solid waste loads.

(S) WATER QUALITY
(a) Does the proposed project have the potential to impact water quality, including ground water, surface water bodies, and public water supply system or federal, state or tribal water quality standards? (If Yes, contact appropriate agency and include record of consultation).

Yes, temporarily. Construction and operation of the Proposed Project may temporarily affect surface water quality. Construction would disturb land and runoff from the area could flow into nearby streams (see Section 4 of this Short EA Form). However, given the distance of the streams from the project study area, runoff would not directly enter the streams. Nevertheless, BMPs, as described in Section 6(H) of this Short EA Form, would be used to prevent water quality impacts.

As recommended in FAA Advisory Circular (AC) 150/5200-33B, the Proposed Project would remove all standing water it causes on or near the airfield within 48 hours of a design rainfall event. Therefore, stormwater facilities associated with the Proposed Project would not cause a wildlife hazard.

(b) Is the project to be located over a designated Sole Source Aquifer? (If Yes, attach record of consultation with EPA).

No. The Proposed Project is not located over a designated Sole Source Aquifer (see Section 4 of this Short EA Form). Therefore, the Proposed Project would not affect any aquifers.

(T) WETLANDS
(a) Does the proposed project involve federal or state regulated or non-jurisdictional wetlands? (Contact USFWS or state agency if protected resources are affected.) (Wetlands must be delineated using methods in the US Army Corps of Engineers 1987 Wetland Delineation Manual. Delineations must be performed by a person certified in wetlands delineation.)

No. There are no wetlands within the project study area. Therefore, the Proposed Project would not involve Federal or state regulated or non-jurisdictional wetlands.

(b) If yes, does the project qualify for an Army Corps of Engineers General permit? (Document coordination with the Corps.)

Not applicable. See Section 6(T)(a) of this Short EA Form.

(U) WILD AND SCENIC RIVERS
Would the proposed project affect a river segment that is listed in the Wild and Scenic River System or Nationwide Rivers Inventory? (If Yes, coordinate with the jurisdictional agency and attach record of consultation.)

No. The closest wild and scenic river is approximately 130 miles west of the project study area. Additionally, the Proposed Project would not directly or indirectly affect any Nationwide Rivers Inventory (NRI) segments in Campbell County. Therefore, the Proposed Project would not affect a river segment listed in the Wild and Scenic River System or NRI.

(V) CUMULATIVE IMPACTS
Discuss impacts from past, present, and reasonably foreseeable future projects both on and off the airport. Would the proposed project produce a cumulative effect on any of the environmental impact categories above? Consider projects that are connected and may have common timing and/or location. For purposes of this Form, generally use 3 years for past projects and 5 years for future foreseeable projects.

Past Projects (2011-2013):
On-Airport Projects:
- Rehabilitation of various parking lots, including the Virginia Aviation parking lot and Freedom Aviation parking lot (2012)
- Rehabilitation of the air carrier apron and adjoining taxiways (2012)
- Construction of a new GA ramp (2013)

Off-Airport Projects:
- Wards Road Bridge improvements, approximately one mile east of the project study area (2013)
- Fifth Street Phase II, approximately seven miles northwest of the project study area (2013)

Current Projects (2014):
On-Airport Projects:
Construction of the new south ramp and the airfield pavement rehabilitation
Taxiway “C” and “D” Relocation (Phase 2)

Off-Airport Projects:\(^{41}\):
- Allen-Morrison Park improvements\(^{42}\), approximately five miles northeast of the project study area
- Jefferson Street South Lower Bluffwalk Phase 1 and Phase 2, pedestrian street, approximately seven miles northeast of the project study area
- Kemper Street Bridge replacement and interchange modifications, approximately six miles northeast of the project study area
- Main Street Bridge rehabilitation, approximately seven miles northeast of the project study area
- College Lake Dam improvements, approximately five miles northeast of the project study area
- Lakeside Drive/College Street intersection improvements, approximately five miles northeast of the project study area


On-Airport Projects:
- Phase II of the T-Hangar Construction (2015)
- Design and construction of Runway 4-22 parallel taxiway (2016)
- Phase II of the mid-field general aviation development area (2018)
- South GA development area (2019)

Off-Airport Projects\(^{43}\):
- Odd Fellows Road improvements, approximately five miles northeast of the project study area (2015)
- Wards Road / Harvard Street improvements, approximately two miles northeast of the project study area (2015)
- New parking facility in the central business district, approximately six miles northeast of the project study area (2016)
- Wards Ferry Road/Harvard Street intersection improvements, approximately two miles northeast of the project study area (2017)
- College Park upgrade, approximately two miles northeast of the project study area (2017)

Cumulative Impacts: As described in Section 6(A) – (U) of this Short EA Form, implementation of the Proposed Project would not significantly affect environmental resources. Construction of these other projects, both on- and off-airport, may temporarily affect air quality, noise, and water quality. BMPs would be employed to minimize their temporary adverse effects, see Section 6(H). Given the use of BMPs and the small area of the Proposed Project would affect, the potential cumulative construction impacts would not be significant. When evaluated with regard to past, present, and reasonably foreseeable projects, the Proposed Project would not result in a significant cumulative impact.

7. PERMITS
List all required permits for the proposed project. Has coordination with the appropriate agency commenced and what is the expected time frame of receiving a permit?

The City of Lynchburg would apply for a construction permit from the Campbell County Community Development Department.

The Airport Sponsor and/or selected contractor would obtain a permit for asbestos removal and demolition from the Virginia DOLI (see Section 6(E) of this Short EA Form).

Under current estimates, the limit of disturbance for construction of the Proposed Project, including the laydown area, would occur on approximately one-half acre. Therefore, an NPDES permit would not be required.44

8. MITIGATION
Describe those mitigation measures to be taken to avoid creation of significant impacts to a particular resource as a result of the proposed project, and include a discussion of any impacts that cannot be mitigated.

Section 6 of this Short EA Form describes the environmental effects of the No Action and Proposed Project. Comparison of those effects to the significance thresholds noted in FAA Order 1050.1E, Change 1, Appendix A for the affected environmental resources indicates the construction and operation of the Proposed Project would not cause significant impacts on those resources.

The construction of the Proposed Project has the potential to cause temporary construction impacts. These would be mitigated through the use of BMPs and permitting requirements (see Sections 6(E) and 7 of this Short EA Form). As described in Section 6(H) of this Short EA Form, the contractor may also use sustainable measures when constructing the Proposed Project.

The demolition of the existing ATCT building would involve handling materials containing asbestos. The selected contractor would follow 16 VAC 25-30-10, 16 et. seq.; 16 VAC 25-20; and 40 CFR Part 61, Subpart M; to prevent potential impacts from asbestos (see Sections 6(E) and 6(L) of this Short EA Form).

9. PUBLIC INVOLVEMENT
Describe the public review process and any comments received.

Early coordination – On December 23, 2013, RS&H, on behalf of the Airport Sponsor, distributed an early coordination package to various federal, state, and local agencies. The packet discussed the preparation of a Short EA Form for the proposed replacement ATCT, discussed a request for any relevant information agencies may have regarding the project site and/or environs, and provided the opportunity for agencies to comment on the Proposed Project potential environmental, social, and economic issues.

The information obtained during the early coordination effort was used, as appropriate, during the preparation of this Short EA Form. See Attachment C-1 for the coordination package and distribution list. Attachment C-2 includes correspondence received regarding the Proposed Project.

*Draft Short EA Form public outreach* – The draft EA is required to be made available via a Notice of Availability to the public for a 30-day review period. In addition, it is to be distributed to the appropriate local, state, and federal regulatory agencies for review. Any comments received will be addressed accordingly and incorporated into the final version of the document. Copies of the draft EA are available on the Airport’s website (http://www.lynchburgva.gov/airport) and at the following locations:

**Lynchburg Regional Airport**  
350 Terminal Drive, Suite 100  
Lynchburg, VA 24502

**Campbell County Public Library**  
Timberbrook Library  
21039 Timberlake Road  
Lynchburg, VA 24502

**FAA Washington Airports District Office**  
23723 Air Freight Lane, Suite 210  
Dulles, VA 20166

**10. LIST OF ATTACHMENTS**

Attachment A – Exhibits

Attachment B – FAA Safety and Environmental Certification Checklist

Attachment C – Agency Correspondence

Attachment D – Excerpts from the *Lynchburg Regional Airport ATCT Siting Study*

Attachment E – Construction Emissions Inventory

Attachment F – USFWS On-line Project Review

Attachment G – VDHR Archives Search
Project Title: Replacement Air Traffic Control Tower at Lynchburg Regional Airport
Identifier: LYH

11. PREPARER CERTIFICATION
I certify that the information I have provided above is, to the best of my knowledge, correct.

[Signature]
Name: Natalie Deschapelles
Title: Environmental Specialist
Affiliation: RS&H, Inc.
Phone #: (904) 256-2500

Date: June 19, 2014

12. AIRPORT SPONSOR CERTIFICATION
I certify that the information I have provided above is, to the best of my knowledge, correct. I also recognize and agree that no construction activity, including but not limited to site preparation, demolition, or land disturbance, shall proceed for the above proposed project(s) until FAA issues a final environmental decision for the proposed project(s), and until compliance with all other applicable FAA approval actions (e.g., ALP approval, airspace approval, grant approval) has occurred.

[Signature]
Name: Mark Courtney
Title: Airport Director
Affiliation: City of Lynchburg, VA
Phone #: (434) 455-6089

Date: June 20, 2014
INSTRUCTIONS

NOTE: This form was prepared by FAA Eastern Region Airports Division and is intended for use with proposed projects in this region only.

Introduction: This Short Environmental Assessment (EA), is based upon the guidance in Federal Aviation Administration (FAA) Orders 5050.4B – NEPA Implementing Instructions for Airport Actions and 1050.1E – Environmental Impacts: Policies and Procedures, and the Environmental Desk Reference for Airport Actions, which incorporate the Council on Environmental Quality's (CEQ) regulations for implementing NEPA, as well as US Department of Transportation environmental regulations, and many other federal statutes and regulations designed to protect the Nation's natural, historic, cultural, and archeological resources, etc. The information provided by sponsors and their consultants through the use of this form enables the FAA ADO offices to evaluate compliance with NEPA and the applicable special purpose laws.

Use: This Form is intended to be used when a project cannot be categorically excluded (CATEX) from a formal environmental assessment, but when the environmental impacts of the proposed project are expected to be insignificant and a detailed EA would not be appropriate. Accordingly, this Form is intended to meet the intent of a short EA while satisfying the regulatory requirements of an EA. Proper completion of the Form would allow the FAA to determine whether the proposed airport development project can be processed with a short EA, or whether a more detailed EA or EIS must be prepared.

If you have any questions on whether use of this form is appropriate for your project, or what information to provide, we recommend that you contact the environmental specialist in your local ADO.

This Form is to be used in conjunction with applicable Orders, laws, and guidance documents, and in consultation with the appropriate resource agencies. Sponsors and their consultants should review the requirements of special purpose laws (See 5050.4B, Table 1-1 for a summary of applicable laws). Sufficient documentation is necessary to enable the FAA to assure compliance with all applicable environmental requirements. Accordingly, any required consultations, findings or determinations by federal and state agencies, or tribal governments, are to be coordinated, and completed if necessary, prior to submitting this form to FAA for review. Coordination with Tribal governments must be conducted through the FAA. We encourage sponsors to begin coordination with these entities as early as possible to provide for sufficient review time. Complete information will help FAA expedite its review. Please note: When requesting discretionary funding for an airport project, the appropriate environmental documentation should be submitted to the local Airports District Office by April 30th of the year preceding the year funding is requested.

Availability: An electronic version of this Short Form EA is available on-line at http://www.faa.gov/airports/eastern/environmental/media/C10.DOC. Other sources of environmental information including guidance and regulatory documents are available on-line at http://www.faa.gov/airports_airtraffic/airports/environmental.
Attachment A – Exhibits

Exhibit A-1 – Location Map
Exhibit A-2 – Proposed Project
Exhibit A-3 – Project Study Area
Exhibit A-4 – Alternative ATCT Sites
Sources: Esri, 2013; RS&H, 2013

Access Sidewalk

Existing Antenna and Equipment to be Relocated to Replacement ATCT

RS&H

Exhibit A-2

Proposed Project