



## Executive Director's Recommendation

Commission Meeting: June 6, 2019

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<b>PROJECT</b> <b>Photovoltaic Facility and Boiler Conversion</b> Federal Law Enforcement Training Center 9000 Commo Road, Cheltenham, Maryland	<b>NCPC FILE NUMBER</b> 8081  <b>NCPC MAP FILE NUMBER</b> 3211.10(38.00)44944
<b>SUBMITTED BY</b> United States Department of Homeland Security	<b>APPLICANT'S REQUEST</b> Approval of preliminary site development plans
<b>REVIEW AUTHORITY</b> Federal Projects in the Environs per 40 U.S.C. § 8722(b)(1)	<b>PROPOSED ACTION</b> Approve preliminary site development plans with comments
	<b>ACTION ITEM TYPE</b> Consent Calendar

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### PROJECT SUMMARY

The Department of Homeland Security (DHS) has submitted preliminary site development plans for the addition of a ground-mounted photovoltaic (PV) facility and conversion of fuel oil boilers to those run by natural gas. The project is located at the Federal Law Enforcement Training Center (FLETC) in Cheltenham, Prince George's County, Maryland.

FLETC serves as an interagency law enforcement training organization for numerous partner agencies, and provides services to officers in state, local, tribal, and campus agencies, as well as international organizations. It is comprised of four facilities with the headquarters located near Brunswick, Georgia. FLETC-Cheltenham is located approximately 15 miles southeast of downtown Washington, DC. The facility focuses on firearms and driver training requalification for law enforcement personnel in the National Capital Region. The campus includes indoor and outdoor training areas, a driving course, and administrative offices on a 247-acre campus.

FLETC proposes to construct and operate a two-megawatt (MW) system on approximately 13 acres of land located in the northwestern corner of the campus. Approximately 6,750 modules would be used to obtain a total power output of 2.464 MW, which would accommodate around 60 percent of the facility's needs. The PV system would consist of 26 vertical rows spaced 16 feet apart. The panels are generally eight feet tall at their highest point. The only impervious surface areas would be the two concrete pads, the gravel driveway, and the steel posts. The site is currently planted with a tract of pine trees that will be removed. Several alternative sites were considered, but none were deemed viable due to small size or conflicts with mission-critical activities. Roof top locations were also dismissed due to building maintenance concerns, the potential for roof penetrations and the need for future roof replacement. The boiler conversion component of the project will only have limited exterior changes.

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The purpose of the project is to decrease energy costs, ensure long-term energy price stability, and to reduce reliance upon fossil fuels. The installation will help meet renewable energy directives and DHS's overall sustainability goals while maintaining FLETC's mission of national security.

## KEY INFORMATION

- FLETC serves as an interagency law enforcement training organization for numerous partner agencies, and provides services to state, local, tribal, campus, and other officers and agents.
- FLETC proposes to construct and operate a photovoltaic system that would accommodate around 60 percent of the facility's energy needs.
- On May 17, 2018, the President signed Executive Order 13834 - *Efficient Federal Operations* - directing federal agencies to meet policy goals for energy efficiency, consumption of renewable energy, electricity and potable and non-potable water, and sustainability, among other requirements.
- The installation will help accommodate renewable energy directives and DHS's overall sustainability goals while maintaining FLETC's mission of national security.
- The 13-acre site is currently planted with rows of pine trees installed in the 1990s. The tract will be cleared for the PV array.
- Several alternative sites were considered, but none were deemed viable due to small size or conflicts with mission-critical activities. Roof top locations were also dismissed due to building maintenance concerns, penetrations and future roof replacement.
- DHS and FLETC are working with the Maryland Department of Natural Resources (DNR) to mitigate the tree removal through replanting and/or establishment of a forest conservation zone on other parts of the campus.

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## RECOMMENDATION

The Commission:

**Approves** the preliminary site development plans for the addition of a ground-mounted photovoltaic (PV) facility and associated work for the conversion of fuel oil boilers to natural gas at the Federal Law Enforcement Training Center in Cheltenham, Maryland.

**Notes** the PV facility will accommodate up to 60-percent of the training center's total annual energy consumption and would reduce greenhouse gas contributions to support DHS reduction goals.

**Notes** the Comprehensive Plan includes policies to reduce fossil fuel-generated energy consumption as well as to prevent net tree loss for projects.

**Notes** the PV facility will be 13 acres, and DHS and FLETC are working with the Maryland Department of Natural Resources to mitigate the necessary tree removal through replanting and/or the establishment of a forest conservation zone on other parts of the campus.

**Requires** DHS and FLETC provide, as part of the final submission, details regarding the approved mitigation developed in coordination with the Maryland Department of Natural Resources.

**Reminds** DHS that a master plan for the FLETC-Cheltenham campus should be submitted for the Commission's review as the last time the Commission reviewed the master plan was in 2002.

## PROJECT REVIEW TIMELINE

<b>Previous actions</b>	<b>None.</b>
<b>Remaining actions (anticipated)</b>	– Review of Final Site Development Plans

## PROJECT ANALYSIS

### Executive Summary

NCPC staff has evaluated the project regarding the proposed facility siting, goals for increasing use of renewable energy, reducing greenhouse gases, and the mitigation measures necessary from project implementation. The installation will help meet renewable energy directives and DHS's overall sustainability goals while maintaining FLETC's mission of national security. The submission includes information regarding the proposed facility siting decisions, as well as the benefits to energy generation and sustainability. Therefore, staff recommends that the **Commission approve the preliminary site development plans for the addition of a ground-mounted photovoltaic (PV) facility and associated work for the conversion of fuel oil boilers to natural gas at the Federal Law Enforcement Training Center in Cheltenham, Maryland.** As the project is further developed, additional information about tree removal mitigation will be necessary as part of the project submission for final review. The applicant has indicated that discussion regarding these measures are on-going with the Maryland Department of Natural Resources (DNR).

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## **Analysis**

### *Site and Installation*

As noted in other similar projects, the siting of large PV areas requires evaluation of placement, the benefits of the installation, and the potential mitigation measures necessary due to any impacts from the installation. Regarding siting, a number of sizes and types of PV arrays were analyzed, including a smaller, 1-MV, freestanding facility alternative as well as rooftop systems. The applicant has stated that smaller PV arrays would achieve a proportionately smaller reduction in the overall DHS greenhouse gas reduction goals. It would also likely require the construction of another PV facility in another location, with the potential to cause other environmental impacts. From a building maintenance perspective, rooftop panels were rejected due to the life of the roof systems and the potential for penetrations in building housing mission-critical uses. NCPC staff inquired about the use of existing paved areas for the installation. The applicant has indicated that parking areas are relatively small, and large paved areas in portion of the campus are used for training activities and cannot be encumbered by PV installation.

The project site was ultimately selected due to its size and minimal impacts on FLETC mission activities. Other undeveloped sites, including wetlands and forested areas with specimen trees, were dismissed due to the potential for greater impacts. The selected site is currently planted with a tract of pine trees that will be removed. This area was previously cleared and rows of trees were installed in the 1990s. The trees will be harvested as part of the project. The PV system would consist of 26 vertical rows spaced 16 feet apart. The only impervious surface areas would be the two concrete pads, the gravel driveway, and the steel posts. Areas under the panels would remain clear. As such, no impacts to stormwater runoff are anticipated. At its closest point, the PV array would be approximately 250 feet from the nearest residential location. They generally would not be seen from off-site locations given their low vertical profile and the extensive wooded buffer surrounding the property.

### *Renewable Energy and Sustainability*

Executive Order 13834 calls for federal agencies to meet goals for improving energy efficiency, consumption of renewable energy, electricity and potable and non-potable water, and sustainability. The project would assist FLETC and the DHS in meeting their overall sustainability, mission readiness and resiliency goals. FLETC currently has approximately 20 environmental programs, including a Green Purchasing Program, an Energy Conservation Program, a Fleet Management Program, a Hazardous Waste Management Program, a Storm Water Management Program, a Fuel Tank Management Program, a Recycling Program, as well as several others. Each of these programs has been implemented at all FLETC campuses and is under the day-to-day control of an environmental protection specialist.

The proposed PV array would produce an estimated 3,431,817 kilowatt hours per year. This represents a \$326,000 value annually based on FY 2016 data (\$0.095/kWh). The PV array would be connected to the existing electrical distribution lines at Cheltenham in order to supplement the facility energy requirements. Preliminary analysis indicates the array would generate between 50

and 60% of the Cheltenham's total annual electricity consumption based on historical utility data. In addition, the applicant has indicated that GHG output associated with project is considerably lower than power generation from combustion of fossil fuels. Carbon dioxide (CO<sub>2</sub>) output per kilowatt hour of solar power is anticipated to be 88% lower than coal and 77% less than natural gas. The project therefore is expected to reduce greenhouse gas contributions and support DHS reduction goals. This is consistent with many policies set forth in the Environment Element of the Comprehensive Plan.

### *Tree Mitigation*

As noted previously, approximately 13-acres of forest area will be removed for the project. While the area was planted and is not original forest, mitigation measures should be undertaken to preserve or replace canopy on the campus, consistent with the policies found in the Comprehensive Plan. DHS and FLETC have stated they are working with the Maryland Department of Natural Resources to mitigate the necessary tree removal through replanting and/or the establishment of a forest conservation zone on other parts of the campus. Because those discussions are ongoing, it is unclear what the final measures will be. As such, staff recommends the **Commission requires DHS and FLETC provide, as part of the final submission, details regarding the approved mitigation developed in coordination with the Maryland Department of Natural Resources.**

Finally, staff notes that FLETC should work with NCPC staff to submit its master plan for review, pursuant to the National Capital Planning Act. An approved master plan will help facilitate and streamline the review process for future projects on the campus. As such, staff recommends the **Commission remind DHS that a master plan for the FLETC-Cheltenham campus should be submitted for the Commission's review as the last time the Commission reviewed the master plan was in 2002.**

## **CONFORMANCE TO EXISTING PLANS, POLICIES AND RELATED GUIDANCE**

### **Comprehensive Plan for the National Capital**

NCPC staff has reviewed this proposal for compliance with relevant guidance and has determined that it is generally consistent with the policies established in the Federal Elements of the *Comprehensive Plan for the National Capital*. In particular, the project is supported by policies in the Federal Environment. Additional information about tree mitigation measures will be necessary as part of the submission for final review.

### **National Historic Preservation Act**

The submission includes documentation that the project was reviewed by the Maryland Historic Trust, which made the determination that there are no historic properties affected by this

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undertaking. For projects outside of the District of Columbia, NCPC does not have a formal Section 106 review responsibility.

### **National Environmental Policy Act**

As previously mentioned, DHS has prepared a draft EA to review the project under NEPA. Preliminary findings indicate there would be no significant impacts to identified resources. The EA analyzed one “no build” alternative and the proposed “build” alternative. DHS’ preferred alternative is reflected in the current project submission. For projects outside of the District of Columbia, NCPC does not have a formal review responsibility under the National Environmental Policy Act.

### **CONSULTATION**

DHS transmitted the project to the Maryland Department of Planning’s project referral clearinghouse, which transmitted the submission to the following agencies: the Maryland Departments of Natural Resources, Transportation, and the Environment; Prince George's County; and the Maryland Department of Planning including the Maryland Historical Trust. The Maryland Department of Transportation and Prince George's County did not have comments. The Maryland Departments of Natural Resources (DNR), and Environment (MDE) provided additional comments for further coordination before and during construction.

### **ONLINE REFERENCE**

The following supporting documents for this project are available online at [www.ncpc.gov](http://www.ncpc.gov):

- Project Synopsis

Prepared by Matthew Flis  
05/30/2019

### **POWERPOINT (ATTACHED)**

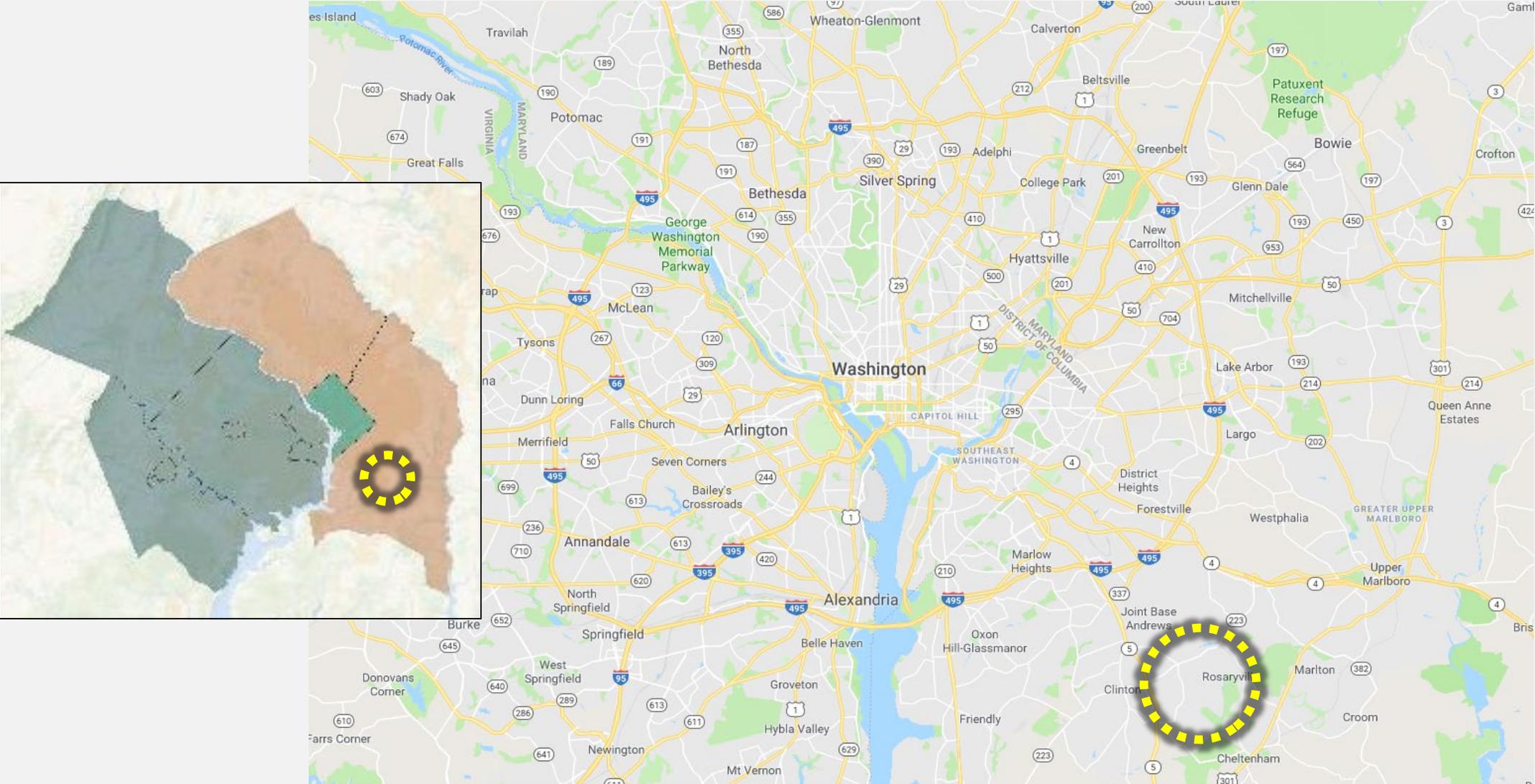
# Photovoltaic Facility and Natural Gas Fired Boilers Conversion

Federal Law Enforcement Training Center  
9000 Commo Road, Cheltenham Maryland

Approval of Preliminary Site Development Plans

United States Department of Homeland Security

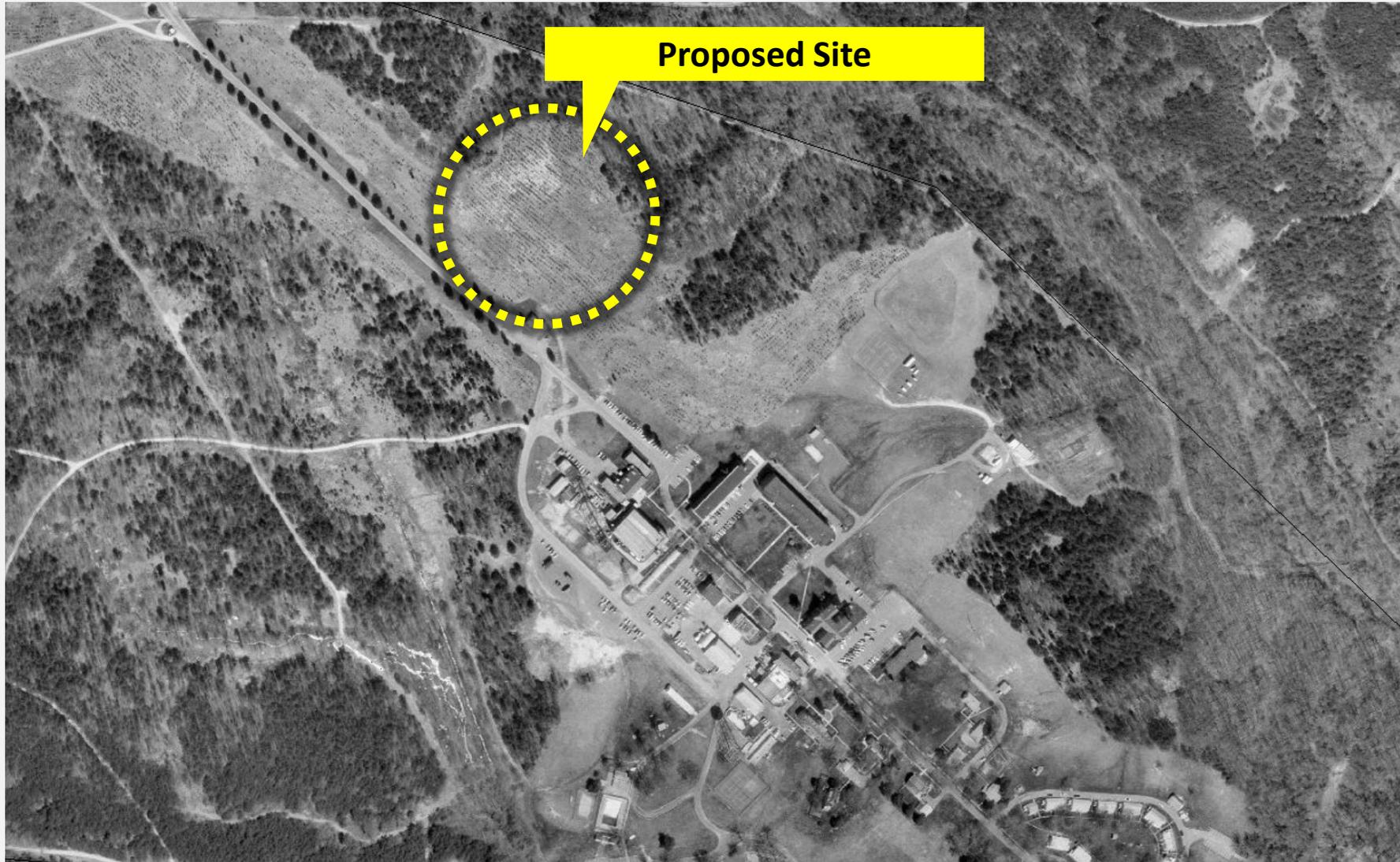
# Project Location



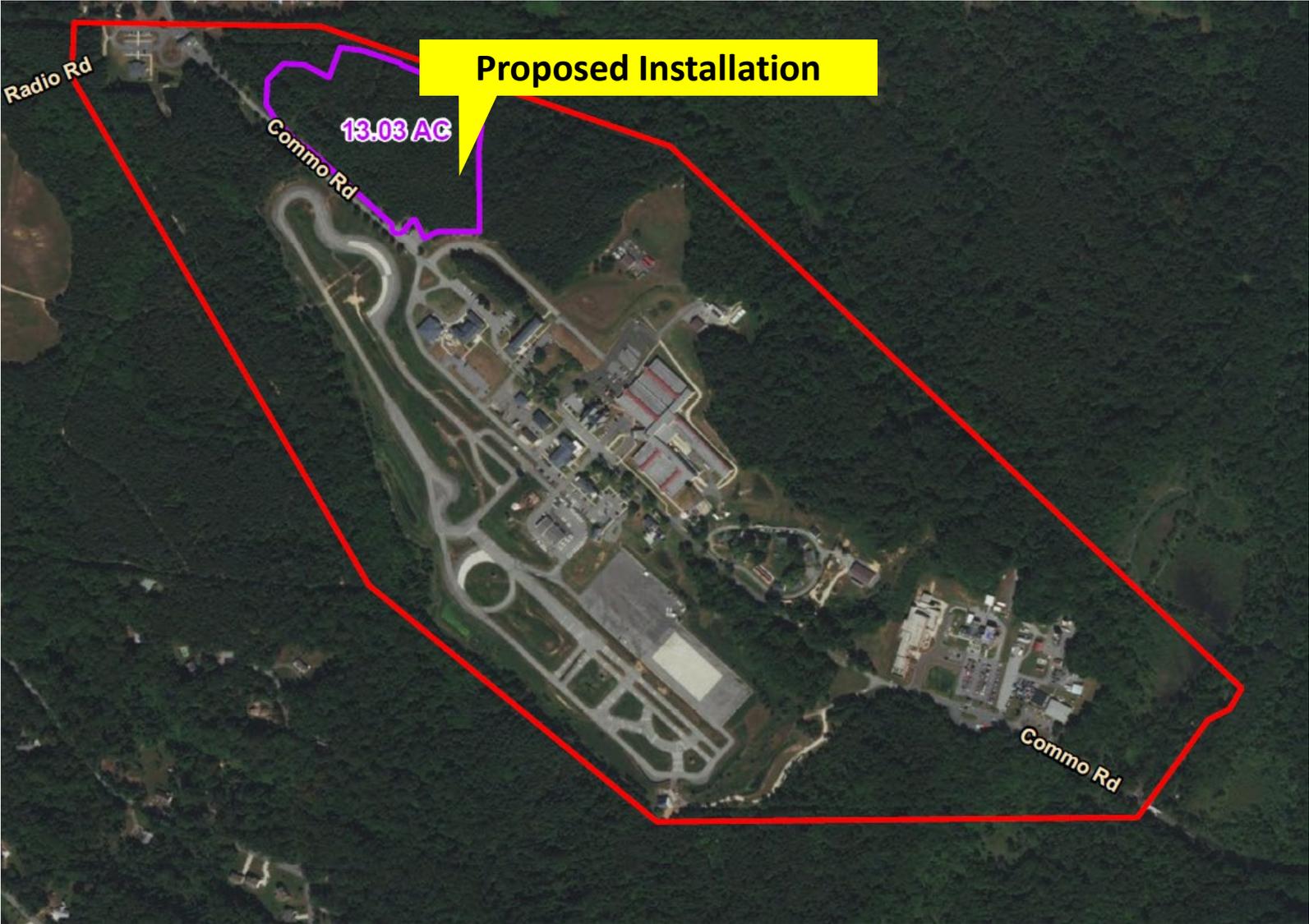
# FLETC Campus



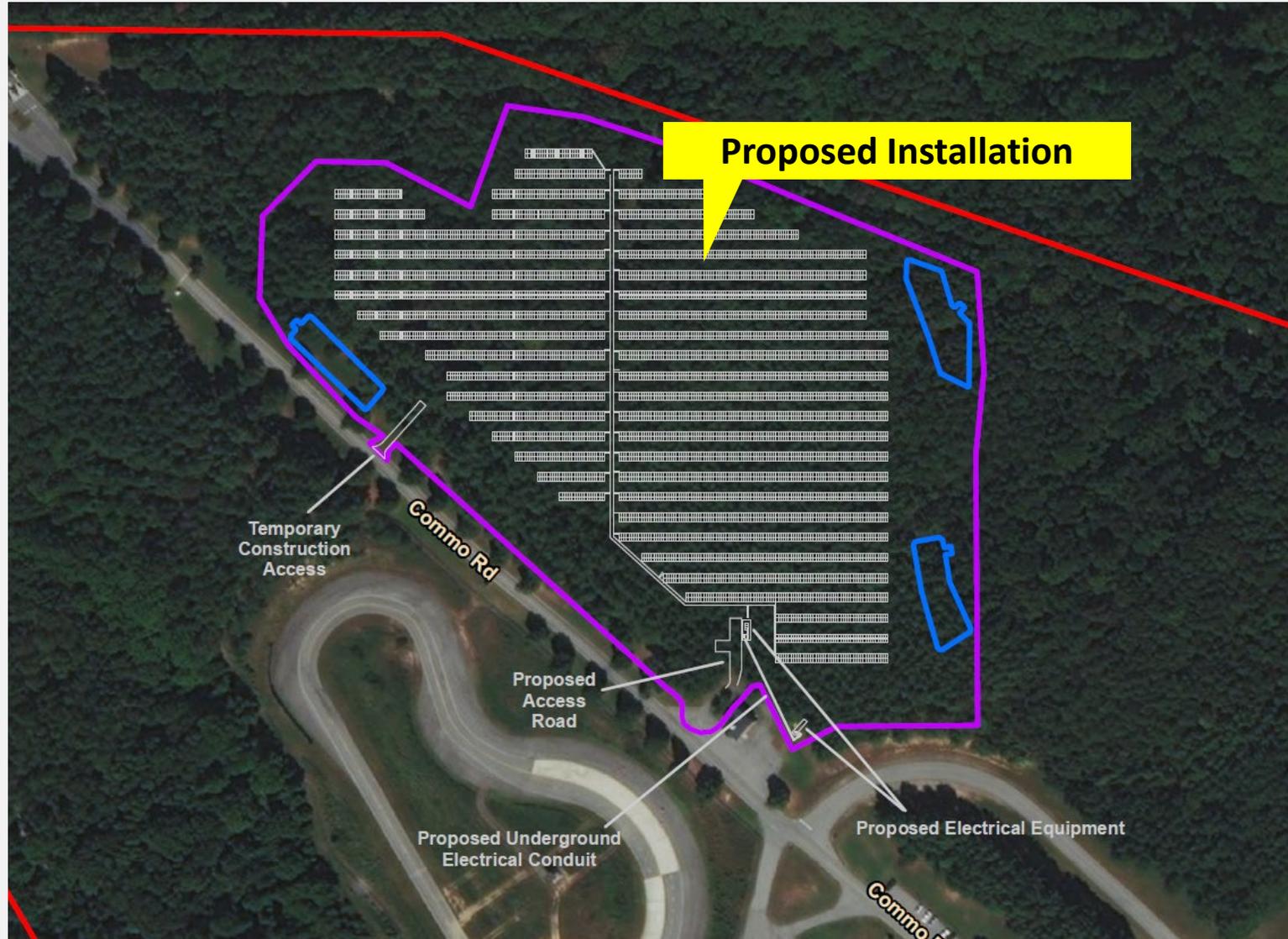
# Aerial Image of Site – Pre-Planting



# FLETC Campus and Solar Array Boundaries



# Solar Array Layout



# Typical Ground-Mount Solar Modules



Ground Mount Fixed Rack Solar Modules