

**DRAFT**

**ENVIRONMENTAL ASSESSMENT  
OF THE  
LEASE TO BAY DISTRICT SCHOOLS FOR  
CONSTRUCTION AND OPERATION OF A NEW  
TYNDALL ACADEMY  
AT TYNDALL AIR FORCE BASE, FLORIDA**

**UNIQUE IDENTIFIER NUMBER: EAXX-007-57-UAF-1753182053**



*Prepared for: Bay District Schools, Panama City, FL*

**March 2026**

### **Privacy Advisory**

This Check Copy Draft Environmental Assessment (EA) is provided for public comment in accordance with the National Environmental Policy Act of 1969 (NEPA) and the *Department of Defense National Environmental Policy Act Implementing Procedures* (DoD NEPA Procedures) issued by the Department of Defense on June 30, 2025. NEPA provides an opportunity for public input on U.S. Department of the Air Force (DAF) decision-making, allows the public to offer inputs on alternative ways for the DAF to accomplish what it is proposing, and solicits comments on the DAF's analysis of environmental effects.

Public input allows the DAF to make better informed decisions. Letters and other written comments submitted may be published in this EA. As provided by law, comments submitted may be published in the EA. Providing personal information is voluntary. Only the names of the individuals making comments and specific comments will be disclosed. Personal home addresses, telephone numbers, and email addresses will not be published in the EA.

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## SECTION 1.0 PURPOSE OF AND NEED FOR ACTION

### 1.1 Introduction

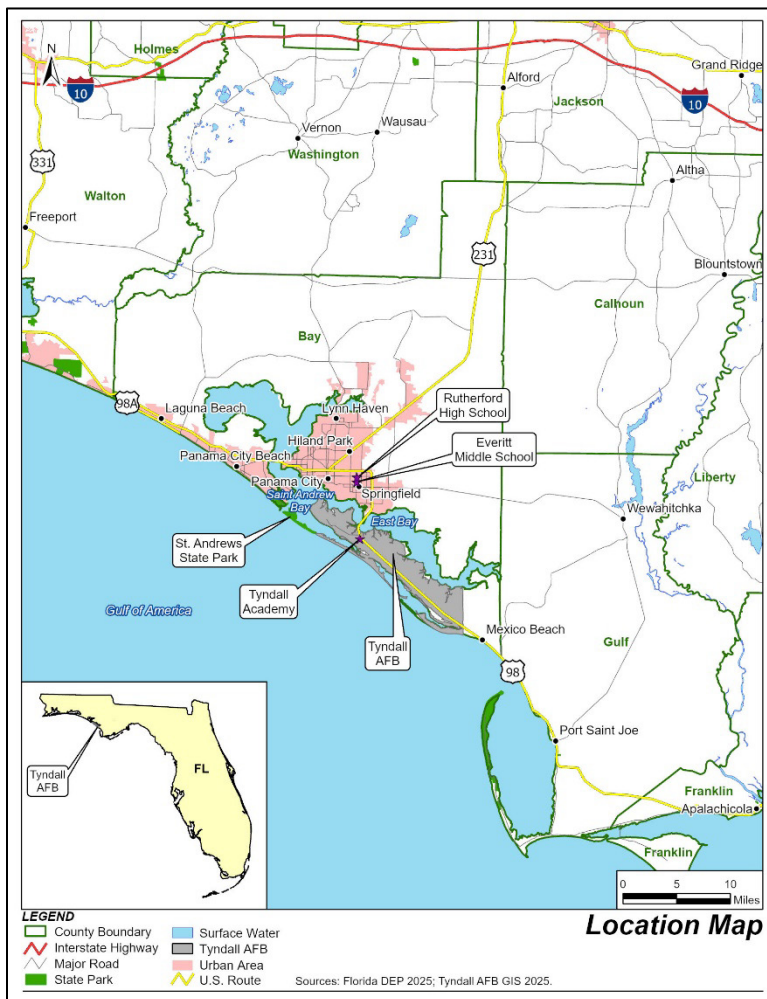
This environmental assessment (EA) evaluates the potential environmental effects from implementing the Proposed Action of the Department of the Air Force (DAF) entering into a lease agreement with Bay District Schools (BDS) for a 40–80-acre parcel of land on Tyndall Air Force Base (AFB) in Bay County, Florida. BDS would build and operate a kindergarten through grade 8 (K–8) school on the leased parcel.

Procedurally the 325th Civil Engineer Squadron (325 CES) developed this EA in accordance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5, the Fiscal Responsibility Act of 2023 (Title 42 United States Code [U.S.C.] § 4321 *et seq.*); the *Department of Defense National Environmental Policy Act Implementing Procedures* (DoD NEPA Procedures) issued by the Department of Defense (DoD) on June 30, 2025; DAF *Memorandum for Initial Department of the Air Force (DAF) Policy for Implementation of the National Environmental Policy Act (NEPA)* dated July 7, 2025 (DAF 2025a); Executive Order (EO) 14148, *Initial Recissions of Harmful Executive Orders and Actions* (January 20, 2025); and EO 14173, *Ending Illegal Discrimination and Restoring Merit-Based Opportunity* (January 21, 2025). Appendix A provides a list of acronyms and abbreviations used in the EA, and Appendix B provides a list of persons primarily responsible for preparing this EA.

Tyndall AFB occupies approximately 29,276 acres in eastern Bay County in the Florida Panhandle, about 3 miles southeast of Panama City (Figure 1.1-1). The base is about 18 miles long and 3 miles wide. It is bounded by water bodies on three sides: East Bay to the east, Saint Andrew Bay to the north, and the Gulf of America to the west. The DuPont Bridge and U.S. Highway (Hwy) 98 connect Tyndall AFB to Panama City and the rest of Bay County northeast of the base, and U.S. Hwy 98 connects the base to the rest of Bay County southeast of the base.

Tyndall AFB is home to the 325th Fighter Wing (325 FW), which hosts 19 tenant organizations on the base. The 325 FW's primary mission is to project unrivaled combat airpower for America (Tyndall AFB 2024). The wing is currently transitioning to the F-35A Lightning II aircraft. When the transition is complete, the 325 FW will become the DAF's newest operational fighter wing, with three F-35A squadrons tasked with maintaining combat readiness in support of national defense.

The base is currently undergoing a \$4.7 billion rebuild after sustaining a direct hit from Hurricane Michael in 2018, with substantial construction and replacement of facilities damaged or destroyed during the hurricane (Tyndall AFB 2024). The rebuild projects were scheduled to be completed by the end of 2025 (325 FW 2020). Some of the projects, however, are ongoing or have not yet started.



**Figure 1.1-1. Project Location Map.**

Currently, BDS operates Tyndall Academy, the primary/secondary school on Tyndall AFB. The DAF opened Tyndall Academy in 1951 as Tyndall Elementary School and operated it to serve the student population on the base and in the surrounding area (Plank 2025a, personal communication). The DAF has leased the school to BDS to operate since May 1, 1974 (Donna Barber 2025, personal communication). In 2020, BDS began transitioning the school from an elementary school to a K–8 school, adding grade 6 in 2020, grade 7 in 2021, and grade 8 in 2022, to serve the growing student population and to extend the continuity of education for the students. BDS has added about 35 modular units (portable, prefabricated, stand-alone classrooms) since 2020 as a temporary solution to accommodate the middle school students in grades 6–8 (Benjumea 2025a).

In addition to the growing Bay County population, BDS’s Everitt Middle School was heavily damaged by Hurricane Michael and had to be demolished. The school has not yet been replaced, and the middle school students have been displaced to BDS’s Rutherford High School since 2018 (Benjumea 2025a). Everitt Middle School was in the eastern part of Bay County in Panama City, about 7 miles north of Tyndall Academy. Rutherford High School is in the same general location, about 7.5 miles north of Tyndall Academy, which feeds into the high school.

## 1.2 Purpose of Action

The purpose of the Proposed Action is to ensure a high-quality educational environment for the current student population as well as for the anticipated influx of students that will occur with the expansion of the F-35 mission at Tyndall AFB.

## 1.3 Need for Action

The need for the Proposed Action is to accommodate the current and projected student population. Because the existing Tyndall Academy is over capacity, BDS brought in modular units as a temporary solution to provide the needed additional classroom space (Walters 2025a, personal communication). The existing school is undersized to accommodate Tyndall AFB's projected population increase resulting from the transition to the F-35A Lightning II, exacerbated by the loss of Bay County's Everitt Middle School in 2018 from Hurricane Michael.

## 1.4 Interagency/Intergovernmental Coordination and Consultation

EO 12372, *Intergovernmental Review of Federal Programs*, as amended by EO 12416, also titled *Intergovernmental Review of Federal Programs*, requires federal agencies to cooperate with and consider state and local views in implementing a federal proposal. Through that coordination process, the 325 CES notified potentially interested stakeholders during the development of this EA. NEPA also requires federal agencies to consider the effects of their proposed actions in accordance with Section 7 of the Endangered Species Act (ESA) (16 U.S.C. § 1531 *et seq.*) and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA) (54 U.S.C. § 300101 *et seq.*). Consultation with the U.S. Fish and Wildlife Service (USFWS) is required, as applicable, to comply with Section 7 of the ESA. Compliance with Section 106 of the NHPA requires consultation with the designated State Historic Preservation Officer (SHPO).

Consistent with NHPA implementing regulations in Title 36 of the *Code of Federal Regulations* (CFR) Part 800; Department of Defense Instruction (DoDI) 4710.02, *DoD Interactions with Federally Recognized Tribes*; Department of the Air Force Instruction (DAFI) 90-2002, *Interactions with Federally Recognized Tribes*; and Department of the Air Force Manual (DAFMAN) 32-7003, *Environmental Conservation*, the 325 FW is conducting government-to-government consultation with federally recognized tribes historically affiliated with the geographic region being considered for the Proposed Action on the action's potential to affect properties of cultural, historical, or religious significance to the tribes.

Appendix C provides copies of the agency and tribe correspondence and a summary of their responses.

## 1.5 Public Participation

This Draft EA is available for a 30-day public review period in accordance with the federal NEPA Procedures. The information presented in this EA serves as the 325 CES's basis for deciding the Proposed Action would result in long-term, significant-but-mitigable adverse effects on land use, noise, safety and health, and protection of children under Alternative 1, Cleveland Gate Site; therefore, preparation of an environmental impact statement is not required and a mitigated finding of no significant impact (FONSI) is appropriate. The 325 CES published a notice of availability in the *Panama City News Herald* on March 29, 2026, inviting the public to review and comment on the Draft EA and Draft Mitigated FONSI during the 30-day public

comment period. Electronic copies of the Draft EA and Draft Mitigated FONSI are available on the publicly accessible Tyndall AFB website at <https://www.tyndall.af.mil/About/> and a public notice was posted on the Bay County website at <https://publicnoticesbaycountyfl.gov>. Printed copies of the Draft EA and Draft Mitigated FONSI are available at the Bay County Public Library, 898 West 11th Street, Panama City, FL 32401. The public is invited to submit comments to the 325 CES by email at [edwin.wallace.1@us.af.mil](mailto:edwin.wallace.1@us.af.mil) or by mail to Edwin Wallace, NEPA Program Manager, 325 CES/CEIEC, 100 Checkertail Way, B36233, Tyndall AFB, FL 32403. Comments should be submitted no later than April 28, 2026. Public comments on the Draft EA and Draft Mitigated FONSI will be addressed in the Final EA and Final Mitigated FONSI, as applicable.

## **SECTION 2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION**

### **2.1 Proposed Action Alternative**

The Proposed Action is for the DAF to enter into a 50-year lease agreement with BDS for a 40–80-acre parcel on Tyndall AFB, on which BDS would build and operate the Tyndall Academy. The Tyndall Academy would be an approximately 253,000-square foot (SF), two-story K–8 school building, with the capacity for 1,200 students. It is anticipated that enrollment for the new school will be at capacity. The capacity of the existing school is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with the elementary school part of the building for K–5 built first, and the middle school part of the building for grades 6–8 and sports facilities built later, depending on construction cost.

The school building would have an administration office, a cafetorium, elementary and middle school classrooms, a gymnasium, a media center, outdoor dining/gathering spaces, playgrounds, and sports fields and facilities. 325 FW also would continue to grant limited access to students currently enrolled in Tyndall Academy to use Tyndall AFB sports fields and facilities for practice on a scheduled basis. The site design would include separate elementary and middle school entrances and areas for buses and parents to drop off students. The school would have parking for the faculty, staff, and visitors. The necessary electrical, gas, potable water, and wastewater utilities would be installed and connected to the base's existing utility systems. The site would have stormwater management facilities (drainage and fenced stormwater detention ponds). The school campus would be secured by a combination of access control, security systems, and fencing.

The administration office would be self-contained with a health clinic, offices, a production workroom, storage, a records-keeping vault, and a guidance suite with an activities center. The guidance suite would provide counselors with a space to help prepare children for their next educational or career steps. The administrative office also would have several conference rooms and offices dedicated to working one-on-one with students and their families.

The cafetorium would have a full kitchen with a dining area as well as a stage and art, dressing, and music rooms. The cafetorium also would provide space for enhanced before- and after-school programs. The school resource officer's office would be adjacent to the cafetorium to enable the officer to aid in managing those programs. The dining area would seat 350 during a lunch period and 491 during a stage event. The facility also would have several adjacent outdoor gathering and dining areas, covered with fabric structures to allow the students to enjoy the outdoor environment.

The elementary and middle school classroom buildings would house an estimated 27 K–grade 3 classrooms, 21 grade 4–8 classrooms, two art rooms, two band/vocal rooms, eight Exceptional Student Education classrooms, three music rooms, nine resource rooms, three science laboratories, and six skills laboratories.

The gymnasium would seat 1,044 in the bleachers and 400 on the basketball court during a school-wide event. The girls' and boys' locker rooms would be separated by a weight room and surrounded by a dance/gymnastics room, a cardio/multipurpose room, and other support spaces such as first aid, laundry, storage, and training.

The media center would have several breakout rooms for small group, directed study that also could double as class-sized testing areas. It would have access to technology, diverse furniture types, and large windows that would create a calm and inviting environment for students to collaborate, study, and relax. The media center's closed-circuit television area would allow students to learn and use media technology during school announcements and community events.

Tyndall Academy would have several smaller fenced outdoor playgrounds for the younger children and several larger playgrounds for the older students. Fabric shade structures would be placed in those areas to allow students to be active, while having protection from the sun. The school would have outdoor athletic fields such as baseball/ softball fields, basketball courts, a football field and track, and tennis courts.

Construction staging areas would be within the leased area on the proposed school site. Construction contractors would use Tyndall AFB's new commercial vehicle gate that replaces the Cleveland Gate. The new commercial vehicle gate is about 2 miles south of the Cleveland Gate, off U.S. Hwy 98.

The Proposed Action would include the following elements, regardless of which alternative site is selected for the school. All measurements are approximate.

- Anticipated enrollment: 1,200 students
- Anticipated K–grade 3 schedule: 7:10 a.m. to 1:50 p.m.
- Anticipated grade 4–8 schedule: 7:15 a.m. to 1:55 p.m.
- Campus size/leased parcel size: 40–80 acres
- Campus elements:
  - Administration area
  - Cafetorium
  - Elementary and middle school classroom buildings
  - Fence: about 5,280 linear feet (LF)<sup>1</sup>
  - Gymnasium
  - Media center
  - Outdoor dining/gathering spaces, playgrounds, and sports fields and facilities
  - Parking: about 380 spaces
- Construction duration: about 27 months, from approval to notice to proceed to permit approval to completion
- Construction staging area: within the boundary of the 40–80-acre site
- Preconstruction clearing, grubbing, grading, and leveling of entire 40–80-acre site
- Projected number of civilian off-base students: 839 students<sup>2</sup>
- Projected number of students whose parents will drop them off (includes on- and off-base students): 816 students<sup>3</sup>
- School footprint: 149,443 SF
- School square footage (includes two 2-story classroom buildings): 253,000 SF

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<sup>1</sup> LF of fencing estimated based on a 40-acre square site, which would be 1,320 ft per side.

<sup>2</sup> Based on anticipated enrollment of 1,200 and current civilian off-base student enrollment of 70 percent of total current student population (Plank 2025b, personal communication).

<sup>3</sup> Based on anticipated enrollment of 1,200 and current parent drop-off rate of 68 percent of total student population (Plank 2025b, personal communication).

- School capacity: 1,200 students
- Stormwater management: fenced detention pond(s) within the 40–80-acre site
- Trenching for utilities, estimated (Carroll 2025, personal communication):
  - Drainage piping: 11,000 LF with average trench width of 5 feet (ft) and average depth of 5 ft
  - Sewer main: 1,400 LF with average trench width of 5 ft and average depth of 7 ft
  - Water main: 2,400 LF with trench width of 3 ft and depth of 3 ft
  - Total area of trenching: 69,200 SF
  - Total volume of trenching: 12,800 cubic yards (CY)

## 2.2 Site Selection Requirements

As specified in DAFI 32-9003, *Granting Temporary Use of Air Force Real Property*, any proposed lease of DAF-owned properties must meet the following conditions to be advanced for a proposal for leasing under the DAF lease program:

- The property is not excess to DAF needs.
- The DAF is not currently using the property.
- The proposed use will not interfere with the mission.
- The proposed use is not at the expense of the DAF, unless otherwise exempt.
- The proposed use is compatible with DAF security and safety requirements.

To identify candidate sites for the lease and the new Tyndall Academy, the 325 CES, 325 FW, and BDS evaluated available sites on the base against DAF and BDS requirements, as presented in Table 2.2-1. The site selection criteria were developed to assist them in determining reasonable alternatives and the basis for eliminating any alternatives. The following selection criteria were used to determine the feasibility of each alternative site.

**Table 2.2-1. Site Selection Criteria**

<b>Criterion</b>	<b>Definition</b>
Site availability	The site must be available to BDS to lease for a school facility for 25 years with automatic 25-year renewal, 50 years total, for BDS to provide K–8 educational services on Tyndall AFB. In addition, the site must meet the remaining selection criteria.
Avoidance of sensitive natural and cultural resources	The site should have no limiting topographic features or environmental constraints that would affect the use of the entire property. Development that affects cultural resources, floodplains, sensitive species and their habitats, and wetlands should be avoided if possible. Open spaces that characterize the base landscape should be preserved to the maximum extent possible.
Land use compatibility and accessibility	The selected site must be compatible with existing land uses and land management objectives at Tyndall AFB, conforming to the base’s master plan, AICUZ study, and DAF guidance in DAFH 32-7084, <i>AICUZ Program Manager’s Guide</i> , and DoDI 4165.57, <i>Air Installations Compatible Use Zones</i> . The site should be located adjacent to existing roadways to create a direct transportation connection for ingress/egress to and from the campus for faculty, staff, students, and visitors, including for after-school functions such as athletics, music, and school-sponsored community activities.
Site size sufficiency	The site must provide a minimum contiguous size of approximately 40 acres to accommodate the school plus surrounding landscaping, roadways, parking, and other supporting infrastructure and features and future expansion of school facilities (e.g., a future football field and track).

*Notes:* DAFH = Department of the Air Force Handbook; AICUZ = air installations compatible use zones.

The current school location is shown on Figure 2.2-1. The 325 CES, 325 FW, and BDS identified the three alternative locations for the Proposed Action listed in Table 2.2-2 and shown in Figure 2.2-1. They determined those locations would meet BDS's short-, mid-, and long-range project requirements for the physical infrastructure and function of the school. An aerial view of each alternative site and a potential layout of the school campus on each site is shown in Figure 2.2-2, Figure 2.2-3, and Figure 2.2-4. The 325 CES, 325 FW, and BDS evaluated the three alternative locations for the school in Table 2.2-2 against the site selection criteria listed in Table 2.2-1. They decided to carry forward all three alternative sites for analysis in this EA.

**Table 2.2-2. Alternative Sites Selection Criteria Evaluation**

<b>Criterion</b>	<b>Alternative 1: Cleveland Gate Site (outside the base security fence)</b>	<b>Alternative 2: Youth Center Site (inside the base security fence)</b>	<b>Alternative 3: Beacon Beach Site (inside the base security fence)</b>
Site availability	Yes.	Yes.	Yes.
Avoidance of sensitive natural and cultural resources	Yes.	Yes.	No: NRHP-eligible site 8BY00154 buffer zone extends into site.
Land use compatibility and accessibility	No: Site is within AICUZ noise zone contour of > 75 dB DNL <sup>a</sup> . Per DAFH 32-7084, educational services land uses and related structures are not compatible with noise levels of 75 dB DNL or more and should be prohibited.	No: Site is not directly accessible from off-base.	No: Site is not directly accessible from off-base.
Site size sufficiency	Yes.	Yes.	Yes.

*Notes:* DAFH = Department of the Air Force Handbook; AICUZ = air installations compatible use zones; dB = decibel; DNL = day-night average sound level; NRHP = National Register of Historic Places.

<sup>a</sup> DNL refers to the average sound level exposure, measured in decibels on the A-weighted scale over a 24-hour period, with a 10-dB penalty for operations occurring during the hours of 10:00 p.m. to 7 a.m. (DAF 2017).

### 2.3 No Action Alternative

Under the No Action Alternative, none of the proposed alternative lease sites would be pursued for construction of a new K–8 school. Current land uses and activities would be maintained at the alternative site locations, and the land would be available for other DAF priority uses.

Although the No Action Alternative would not meet the purpose of and need for the Proposed Action, the No Action Alternative has been carried forward for analysis in the EA in accordance with Part 2.3(a)(3) in the DoD NEPA Procedures. The No Action Alternative analysis includes the consequences of not undertaking the Proposed Action and serves to establish a comparative baseline for the other alternatives.



Figure 2.2-1. Current School and Alternative Site Locations.



Figure 2.2-2. Alternative 1: Cleveland Gate Site Proposed School Campus Layout.



Figure 2.2-3. Alternative 2: Youth Center Site Proposed School Campus Layout.



Figure 2.2-4. Alternative 3: Beacon Beach Site Proposed School Campus Layout.

**2.4 Action Alternatives**

Table 2.4-1 compares the three alternative sites. The sections following the table discuss each of the sites.

**Table 2.4-1. Alternative Site Comparison**

<b>Site Feature</b>	<b>Alternative 1: Cleveland Gate Site</b>	<b>Alternative 2: Youth Center Site</b>	<b>Alternative 3: Beacon Beach Site</b>
Total area of site	2,269,373 SF 52.1 acres	1,724,401 SF 39.59 acres	3,329,290 SF 76.43 acres
Total building footprint	149,443 SF 3.43 acres	149,443 SF 3.43 acres	149,443 SF 3.43 acres
Total building square footage <sup>a</sup>	253,000 SF	253,000 SF	253,000 SF
Total impervious area	487,340 SF 11.19 acres	479,201 SF 11.00 acres	533,340 SF 12.24 acres
Impervious area ratio	0.21	0.28	0.16
Floor area ratio <sup>b</sup>	0.06	0.09	0.04
Open space area	1,876,048 SF 43.07 acres	1,245,200 SF 28.59 acres	2,795,950 SF 64.19 acres
Open space ratio	0.79	0.72	0.84
Front yard setback	305 ft	252 ft	327 ft
Side yard setback	289 ft	297 ft	587 ft
Rear yard setback	248 ft	199 ft	265 ft
Demolition area <sup>c</sup>	4.9 acres	1.1 acres	4.8 acres
Tree removal area <sup>d</sup>	35.3 acres	26.9 acres	--- <sup>e</sup>
Clearing, grubbing, grading, and leveling area	52.1 acres	39.59 acres	76.43 acres
Roads affected	<ul style="list-style-type: none"> <li>▪ Temporary closure or delays on Polk Avenue during construction.</li> <li>▪ Permanent closure of Garfield Avenue and Jackson Street, and part of Cleveland Avenue.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Temporary delays on Sabre Drive during construction.</li> <li>▪ Permanent closure of part of Prime Beef Road.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Temporary delays on Beacon Beach Road and Sabre Drive during construction.</li> <li>▪ Permanent closure of Bomarc Street, Dart Avenue, Delta Drive, Falcon Street, Phantom Lane, Sidewinder Street, and Starfighter Avenue.</li> </ul>

Site Feature	Alternative 1: Cleveland Gate Site	Alternative 2: Youth Center Site	Alternative 3: Beacon Beach Site
Construction access	<ul style="list-style-type: none"> <li>▪ Direct access from off-base from U.S. Hwy 98.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enter base via new commercial gate off U.S. Hwy 98.</li> <li>▪ Travel base roads to construction site.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enter base via new commercial gate off U.S. Hwy 98.</li> <li>▪ Travel base roads to construction site.</li> </ul>
Flood-resistant provisions	<ul style="list-style-type: none"> <li>▪ Site design would be required to meet flood-resistant provisions in the FBC for DFE and special detailed requirements based on use and occupancy as an educational facility, including the finished floor being 12 inches above base flood elevation and the structure anchored to resist buoyant forces. The school would not be an Enhanced Hurricane Protection Area shelter.</li> <li>▪ Site design would be required to meet DAF's DFE of 14 ft AMSL per DAF 2019 Memorandum for Tyndall AFB Design Flood Elevation (DAF 2019).</li> <li>▪ Site design would be required to meet Tyndall AFB's CRIP flood defense strategies, such as beach/dune protection enhancement, flood proofing at-risk buildings, and rebuilding to the DFE.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Site design would be required to meet flood resistant provisions in the FBC for DFE and special detailed requirements based on use and occupancy as an educational facility, including the finished floor being 12 inches above base flood elevation and the structure anchored to resist buoyant forces. The school would not be an Enhanced Hurricane Protection Area shelter.</li> <li>▪ Site design would be required to meet DAF's DFE of 14 ft AMSL per DAF 2019 Memorandum for Tyndall AFB Design Flood Elevation (DAF 2019).</li> <li>▪ Site design would be required to meet Tyndall AFB's CRIP flood defense strategies, such as beach/dune protection enhancement, flood proofing at-risk buildings, and rebuilding to the DFE.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Site design would be required to meet flood-resistant provisions in the FBC for DFE and special detailed requirements based on use and occupancy as an educational facility, including the finished floor being 12 inches above base flood elevation and the structure anchored to resist buoyant forces. The school would not be an Enhanced Hurricane Protection Area shelter.</li> <li>▪ Site design would be required to meet DAF's DFE of 14 ft AMSL per DAF 2019 Memorandum for Tyndall AFB Design Flood Elevation (DAF 2019).</li> <li>▪ Site design would be required to meet Tyndall AFB's CRIP flood defense strategies, such as beach/dune protection enhancement, flood proofing at-risk buildings, and rebuilding to the DFE.</li> </ul>
Operational access	<ul style="list-style-type: none"> <li>▪ Direct access from off-base from U.S. Hwy 98.</li> <li>▪ Access site from U.S. Hwy 98 to Jackson Street or to Polk Avenue.</li> <li>▪ Two entry/exit points from Polk Avenue for faculty, staff, visitors, and parents dropping off/picking up students.</li> <li>▪ One entry/exit for buses and deliveries from Jackson Street; could require an extension to the existing left turn lane within the U.S. Hwy 98 right-of-way.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No direct access from off-base.</li> <li>▪ Enter base via Sabre Gate.</li> <li>▪ Access site from Sabre Drive.</li> <li>▪ Two entry/exit points from Sabre Drive for faculty, staff, visitors, and parents dropping off/picking up students.</li> <li>▪ One entry/exit for buses and deliveries from Sabre Drive.</li> <li>▪ No access plan yet for off-base access to the school by students, faculty, staff, parents, athletic teams, and so forth.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No direct access from off-base.</li> <li>▪ Enter base via Sabre Gate.</li> <li>▪ Access site from Sabre Drive.</li> <li>▪ Two entry/exit points from Sabre Drive for faculty, staff, visitors, and parents dropping off/picking up students.</li> <li>▪ One entrance for buses and deliveries from Sabre Drive.</li> <li>▪ No access plan yet for off-base access to the school by students, faculty, staff, parents, athletic teams, and so forth.</li> </ul>

Site Feature	Alternative 1: Cleveland Gate Site	Alternative 2: Youth Center Site	Alternative 3: Beacon Beach Site
Parking and circulation	<ul style="list-style-type: none"> <li>▪ About 380 parking spaces with adequate number of ADA spaces.</li> <li>▪ Separate bus and parent drop-off/pick-up areas.</li> <li>▪ Bus drop-off/pick-up area would have a minimum outside radius of 60 ft.</li> <li>▪ Parent queuing would use Polk Avenue and circulate around the parking area for the drop-off/pick-up areas at the front of the school.</li> </ul>	<ul style="list-style-type: none"> <li>▪ About 380 parking spaces with adequate number of ADA spaces.</li> <li>▪ Separate bus and parent drop-off/pick-up areas.</li> <li>▪ Bus drop-off/pick-up area would have a minimum outside radius of 60 ft.</li> <li>▪ Parent queuing would use Sabre Drive and circulate around the parking area for the drop-off/pick-up areas at the front of the school.</li> </ul>	<ul style="list-style-type: none"> <li>▪ About 380 parking spaces with adequate number of ADA spaces.</li> <li>▪ Separate bus and parent drop-off/pick-up areas.</li> <li>▪ Bus drop-off/pick-up area would have minimum outside radius of 60 ft.</li> <li>▪ Parent queuing would enter from Sabre Drive and circulate around the parking area for the drop-off/pick-up area at the front of the school.</li> </ul>
Topography and drainage	<ul style="list-style-type: none"> <li>▪ Site is relatively flat.</li> <li>▪ Drains from north to south.</li> <li>▪ Elevation range: 31 ft AMSL along the northern boundary to a low of 29 ft AMSL along the center of the southern boundary.</li> <li>▪ Groundwater levels between 1.8 ft and 5.2 ft below existing grade.</li> <li>▪ Estimated seasonal high groundwater level between 0.8 ft and 4 ft.</li> <li>▪ BDS's planned stormwater design: fenced detention ponds; use the removed material on-site for fill.</li> <li>▪ Stormwater conveyance system would consist of drainage inlets, roof drains with downspouts, and HDPE piping.</li> <li>▪ Depth of the conveyance system would range from 3 ft to 9 ft; about 7,950 LF of HDPE.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Site is relatively flat.</li> <li>▪ Drains from west to east.</li> <li>▪ Elevation range: 22 ft AMSL along the northwest boundary to a low of 18 ft AMSL along the northeast corner.</li> <li>▪ Groundwater levels between 2.2 ft and 4.3 ft below existing grade.</li> <li>▪ Estimated seasonal high groundwater level between 1 ft and 3 ft.</li> <li>▪ BDS's planned stormwater design: fenced detention pond; use the removed material on-site for fill.</li> <li>▪ Stormwater conveyance system would consist of drainage inlets, roof drains with downspouts, and HDPE piping.</li> <li>▪ Depth of the conveyance system would range from 3 ft to 9 ft; about 8,450 LF of HDPE piping.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Site has about 12 ft of change in elevation.</li> <li>▪ Drains from east to west.</li> <li>▪ Elevation range: 22 ft AMSL along the northwest boundary to a low of 12.5 ft AMSL at drainage inlet on the west side.</li> <li>▪ Groundwater levels between 6.5 ft and 9.5 ft below existing grade.</li> <li>▪ Estimated seasonal high groundwater level is between 5 ft and 8 ft.</li> <li>▪ BDS's planned stormwater design: fenced detention pond; use the removed material on-site for fill.</li> <li>▪ Stormwater conveyance system would consist of drainage inlets, roof drains with downspouts, and HDPE piping.</li> <li>▪ Depth of the conveyance system would range from 3 ft to 9 ft; about 8,950 LF of HDPE piping.</li> </ul>

Site Feature	Alternative 1: Cleveland Gate Site	Alternative 2: Youth Center Site	Alternative 3: Beacon Beach Site
Utilities	<ul style="list-style-type: none"> <li>▪ Gulf Coast Electric Cooperative (GCEC) owns and maintains the base’s electric and water distribution systems.</li> <li>▪ TECO Peoples Gas provides natural gas to Tyndall AFB.</li> <li>▪ Connections to electric, gas, sewer, and water services exist at the site.</li> <li>▪ 8-inch gravity sewer line would connect to the existing sewer main on the west side of the site along Jackson Street.</li> <li>▪ Existing depth of the manhole connection is approximately 14 ft below grade.</li> <li>▪ Water would connect to existing 8-inch main on the north side of the site to provide adequate fire service.</li> <li>▪ Trenching estimates for utilities:                             <ul style="list-style-type: none"> <li>• Drainage piping: 11,000 LF with average trench width of 5 ft and average depth of 5 ft</li> <li>• Sewer main: 1,400 LF with average trench width of 5 ft and average depth of 7 ft</li> <li>• Water main: 2,400 LF with trench width of 3 ft and depth of 3 ft</li> <li>• Total area of trenching: 69,200 SF</li> <li>• Total volume of trenching: 12,800 CY</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ GCEC owns and maintains the base’s electric and water distribution systems.</li> <li>▪ TECO Peoples Gas provides natural gas to Tyndall AFB.</li> <li>▪ Connections to electric, gas, sewer, and water services exist at the site.</li> <li>▪ 8-inch gravity sewer lines and new lift station would connect to the existing force main on Sabre Drive.</li> <li>▪ Water would connect to existing 8-inch main on Sabre Drive to provide adequate fire service.</li> <li>▪ Trenching estimates for utilities:                             <ul style="list-style-type: none"> <li>• Drainage piping: 11,000 LF with average trench width of 5 ft and average depth of 5 ft</li> <li>• Sewer main: 1,400 LF with average trench width of 5 ft and average depth of 7 ft</li> <li>• Water main: 2,400 LF with trench width of 3 ft and depth of 3 ft</li> <li>• Total area of trenching: 69,200 SF</li> <li>• Total volume of trenching: 12,800 CY</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ GCEC owns and maintains the base’s electric and water distribution systems.</li> <li>▪ TECO Peoples Gas provides natural gas to Tyndall AFB.</li> <li>▪ Connections to electric, gas, sewer, and water services exist at the site.</li> <li>▪ 8-inch gravity sewer lines would connect to the existing main on Sabre Drive.</li> <li>▪ Water would connect to existing 8-inch main on Sabre Drive to provide adequate fire service.</li> <li>▪ Trenching estimates for utilities:                             <ul style="list-style-type: none"> <li>• Drainage piping: 11,000 LF with average trench width of 5 ft and average depth of 5 ft</li> <li>• Sewer main: 1,400 LF with average trench width of 5 ft and average depth of 7 ft</li> <li>• Water main: 2,400 LF with trench width of 3 ft and depth of 3 ft</li> <li>• Total area of trenching: 69,200 SF</li> <li>• Total volume of trenching: 12,800 CY</li> </ul> </li> </ul>

Sources: 325 FW 2024b; AFCEC 2020; Carroll 2025, personal communication; Cypress Environmental 2024; DAF 2019; FBC 2020; GCEC 2021; Plank 2025c, 2025d, personal communication; SES 2023; Walters 2025b, 2025c, personal communication.

Notes: ADA = Americans with Disabilities Act; AMSL = above mean sea level; CRIP = Coastal Resilience Implementation Plan; DFE = design flood elevation; FBC = Florida Building Code; HDPE = high-density polyethylene pipe.

<sup>a</sup> At the time of this document’s preparation, BDS’s plan was for a two-story building with elementary and middle school classrooms.

<sup>b</sup> The amount of floor building space per acre, or the amount of acreage to be developed relative to the total acreage of a site.

<sup>c</sup> Estimated from Tyndall AFB geographic information system (GIS) data layers for buildings, parking lots, and roads (Tyndall AFB GIS 2025).

<sup>d</sup> Estimated from Tyndall AFB GIS data layers for land cover layers for vegetated areas (e.g., hardwoods, mesic oak, pine, and upland scrub) (Tyndall AFB GIS 2025).

<sup>e</sup> Alternative 3 has no stands of trees to be removed, only individual trees that provided landscaping for the former housing area that was on the site.

### 2.4.1 Alternative 1: Cleveland Gate Site

The Alternative 1 site is an approximately 52-acre site in the western half of the base about 1,000 ft south of the existing Tyndall Academy. The site is bound by U.S. Hwy 98 and Polk Avenue to the north, Jackson Street to the west and south, and unnamed and unpaved roads to the southeast and east. Cleveland Avenue bisects the site, with a former Tyndall AFB gate along the road (Figure 2.2-2). A Tyndall AFB administrative building, housing the base library, is east of the site. A Florida Power & Light substation and the Tyndall Education Center building, housing the base's development center and the Gulf Coast State College, Embry-Riddle University, and Troy University Tyndall AFB satellite campuses, are to the south. Vegetated green space is west of the site. To the east, on the other side of U.S. Hwy 98, is vegetated green space and a fuel storage area for the flight line. The distance from Polk Avenue to the nearest storage tank is about 800 ft.

Alternative 1 was previously developed with base family housing, which was demolished in the 1990s. The site currently has the base's old commercial vehicle inspection gate – Cleveland Gate - along Cleveland Avenue. The Tyndall AFB new commercial vehicle gate is in operation, and the Cleveland Gate will be closed. Although the site has development in the form of roads and the gate, the site is mostly vegetated green space. Infrastructure that would be removed to construct the school includes part of Cleveland Avenue and the gate structure, Garfield Avenue, and Jackson Street. Existing utilities, such as electrical lines, drainage system, gas lines, sewer lines, and water mains, would be removed and replaced as needed. Trees and ground cover vegetation also would be removed. Appendix D, Figure D-1 shows the areas on the Alternative 1 site that would be demolished or cleared.

The 325 CES identified an Installation Restoration Program site, now referred to as an Environmental Restoration Program (ERP) site, to the northwest of Alternative 1 (see Section 2.5 and Figure 2.5-1). The school footprint for this alternative abuts the ERP site buffer. BDS contracted Cypress Environmental to conduct soil and groundwater testing in June and July 2025 at the Alternative 1 site. The testing detected levels of the pesticide dieldrin above commercial/industrial and residential Soil Cleanup Target Levels (SCTLs) at two locations and only residential at one location. The testing also detected levels Groundwater Cleanup Target Levels (GCTLs) exceedances at five locations (Cypress Environmental 2025). Two locations detected GCTLs exceedance of aldrin and one location for semi-volatile organic compounds (SVOCs) benzo(a)anthracene, benzo(a)fluoranthene, and indeno(1,2,3-cd)pyrene. Based on those findings, a formal site investigation is planned to confirm the presence of the contaminants of concern (COCs) and, if warranted, determine the nature and extent of contamination.

Alternative 1's location adjacent to U.S. Hwy 98 outside the base security fence would provide direct access for members of the nonmilitary community who also would use the school. The site, however, is about 3,600 ft from the western end of the airfield runway. Alternative 1 does not meet aspects of the land use compatibility and accessibility site selection criterion because of potential noise concerns, but it has been carried forward for analysis to confirm land use compatibility and/or to identify requisite mitigations to ensure land use compatibility, if feasible.

### 2.4.2 Alternative 2: Youth Center Site

The Alternative 2 site is an approximately 40-acre site in the western half of the base about 2 miles north of the existing Tyndall Academy. The site is bound by Prime Beef Road to the north, Santos Park Road to the west, Sabre Drive to the south, and an unnamed and unpaved road to the east and it is bisected by Prime Beef Road (Figure 2.2-3). Base family housing is north of the

site, the base Youth Center and baseball/softball fields are west of it, additional base family housing is to the south, and vegetated green space is to the east. The green space is a longleaf pine reforestation site of about 27 acres consisting of about 19,500 trees planted with Arbor Day Foundation and DAF funds as part of reforestation efforts initiated in 2020 to recover from Hurricane Michael (Tyndall AFB 2020a).

The site is mostly open space, with a recreational field and tennis courts on the half west of Prime Beef Road. The site also had a track on it, which has been removed and is now dirt. The eastern half of the site is the longleaf pine reforestation site. Existing tennis courts and the section of Prime Beef Road that bisects the site would be removed. The longleaf pine reforestation site and ground cover vegetation also would be removed. Appendix D, Figure D-2 shows the areas on the Alternative 2 site that would be demolished or cleared.

Alternative 2's location within the interior of the base presents a challenge for base security because of the necessary access required by civilian students, faculty, staff, and visitors—such as parents dropping off and picking up children, attending parent-teacher meetings, and participating in after-school activities like athletics, music, and other school-sponsored community events. Because of these access concerns, Alternative 2 does not fully satisfy land use compatibility and accessibility criteria. It has been retained, however, for further analysis to verify land use compatibility and to identify any necessary mitigation measures that could ensure compatibility, if feasible.

### **2.4.3 Alternative 3: Beacon Beach Site**

The Alternative 3 site is an approximately 76-acre site in the western half of the base about 2 miles north of the existing Tyndall Academy. The site is bound by Sabre Drive to the north and west, Eagle Drive to the south, and Beacon Beach Road to the east (Figure 2.2-4). North of the site are recreational facilities (a basketball court, playground, pool, and tennis courts), a former base family housing area (destroyed by Hurricane Michael and demolished), and some vegetated green space. More former base family housing, also demolished after Hurricane Michael, is to the west and south of the site. Occupied base family housing is east of the site.

Alternative 3 was previously developed with base family housing. Those homes were destroyed by Hurricane Michael and have been demolished. The infrastructure is still in place and would be removed to construct the school. Roads with sidewalks that would be removed are Bomarc Street, Dart Avenue, Delta Drive, Falcon Street, Phantom Lane, Sidewinder Street, and Starfighter Avenue. Existing utilities that would be removed and replaced are electrical lines, a drainage system, gas lines, sewer lines, and water mains. The remaining landscaping trees also would be removed. Appendix D, Figure D-3 shows the areas on the Alternative 3 site that would be demolished.

Alternative 3's location within the interior of the base presents the same challenge for base security as Alternative 2 presents. Alternative 3 also has potential cultural resource concerns, because the buffer zone for National Register of Historic Places- (NRHP-) eligible site 8BY00154 extends into the site. Alternative 3 does not meet aspects of either the avoidance of sensitive natural and cultural resources site selection criterion or the land use compatibility and accessibility site selection criterion. It has been carried forward for analysis, however, to confirm compatibility and/or identify requisite mitigations to ensure compatibility, if feasible.

## 2.5 Alternatives Eliminated

The 325 CES determined that using the existing school site to meet the purpose of and need for the Proposed Action was not an option because it does not meet several of the site selection criteria, beginning with site availability. The existing site is undersized, lacks sufficient suitable developable space, and is subject to land use controls associated with the site’s environmental restoration. In 2013, the DAF, the Florida Department of Environmental Protection (FDEP), and the U.S. Environmental Protection Agency (USEPA) signed an interagency agreement known as a Federal Facilities Agreement to guide cleanup of contaminated sites on the base. A 2015 remedial investigation for expansion of the Tyndall Academy parking lot revealed that the soil was contaminated with lead (Pb) shot in several areas around the school, remaining from when the land was used as skeet and target ranges (Figure 2.5-1). The 325 CES identified the sites as ERP sites needing to undergo environmental restoration under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. § 9601 *et seq.*). Guided by the Federal Facilities Agreement, the 325 CES had the ERP site’s contaminated soil excavated and disposed of off-site in a CERCLA-approved landfill (USEPA 2025a). Since the existing school site’s developable acreage and remediated environmental condition do not meet selection criteria, it has not been carried forward for analysis in this EA.

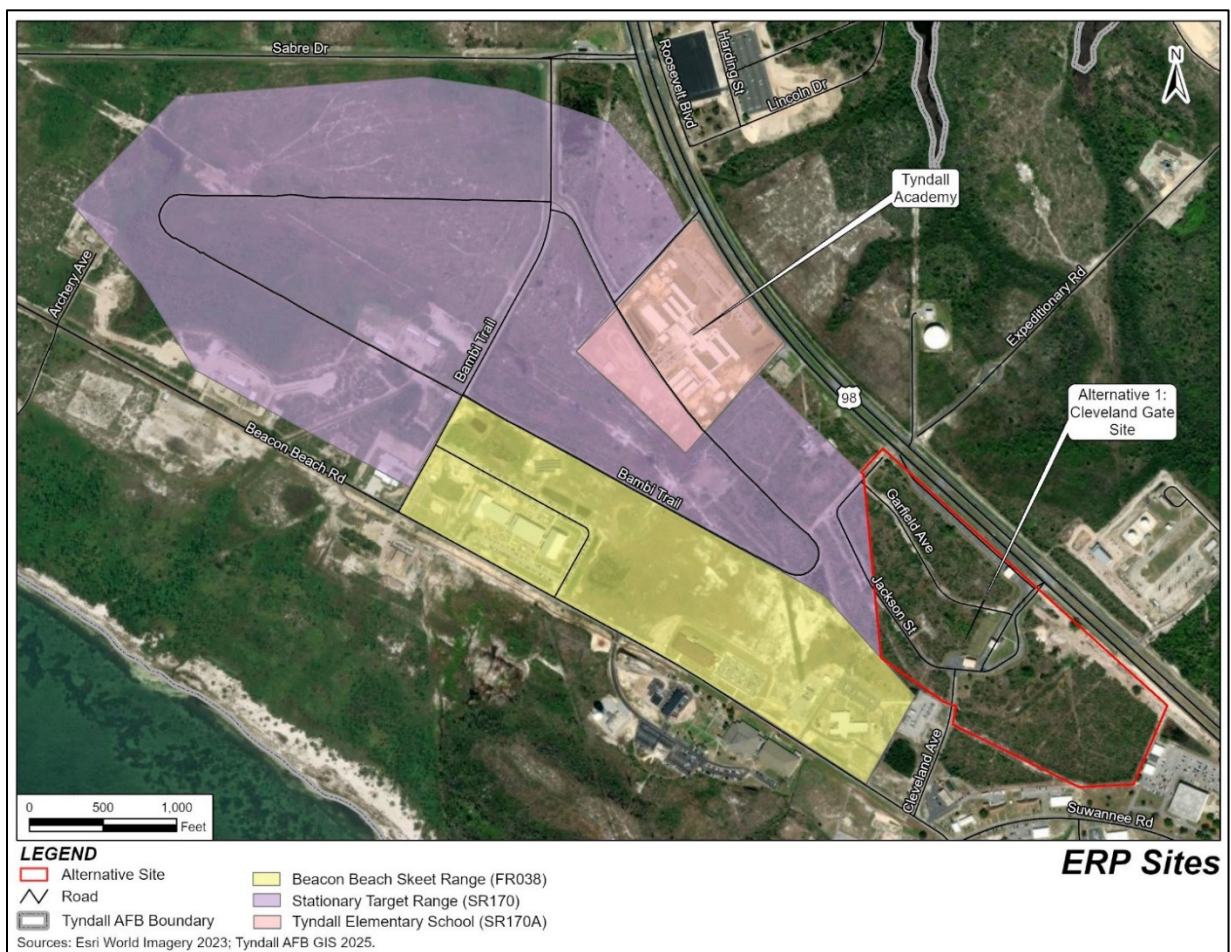


Figure 2.5-1. ERP Sites and Current Tyndall Academy.

## 2.6 Permits, Licenses, and Other Authorizations

Alternatives 1, 2, and 3 would require licenses, permits, and other authorizations to be obtained. Table 2.6-1 provides a list of those potential items, although it is not all-inclusive. BDS would be responsible for obtaining the required licenses, permits, and other authorizations prior to construction. Before moving forward with permitting, however, BDS would need to approve the site selection, estimated construction and mitigation costs, and lease terms.

**Table 2.6-1. Permits, Licenses, and Other Authorizations**

Permit, License, or Other	Issuing Agency	Party Responsible for Obtaining or Completing	Reason for Permit
Air quality permits	Bay County, FDEP	BDS	Air permits required for new construction.
ARPA Permit	DAF	BDS	Any archaeological testing on federal lands must be permitted to conduct excavation and monitoring within the APE.
Dig Permit	325 CES Operations	BDS	Permit to identify the location of and prevent damage to underground utilities.
Environmental Resource Permit Program Individual Permit per Rule 62-330.020, F.A.C.	FDEP	BDS	Project includes the addition of more than 9,000 SF total of impervious surface.
National Pollutant Discharge Elimination System (NPDES) Generic Permit (also known as the Construction Generic Permit [CGP])	FDEP	BDS	Permit for stormwater discharge from large and small construction activities.
Wastewater Permit per Rule 62-620, F.A.C.	FDEP	BDS	Permit for wastewater facilities and activities.
Water Main Extension Permit per Rule 62-555, F.A.C.	FDEP	BDS	Permit for construction of a water main extension.

Note: APE = area of potential effects; ARPA = Archaeological Resources Protection Act; F.A.C. = Florida Administrative Code.

## 2.7 Comparison of Environmental Consequences and Mitigation by Alternative

### 2.7.1 Comparison of Environmental Consequences

Table 2.7-1 lists the potential environmental effects for each of the resource areas evaluated in the EA associated with Action Alternatives 1 through 3 and the No Action Alternative. The table is compiled from the analysis in Section 3.0, *Affected Environment and Environmental Consequences*.

**Table 2.7-1. Comparison of Environmental Effects by Alternative**

Resource Area	Alternative 1: Cleveland Gate Site	Alternative 2: Youth Center Site	Alternative 3: Beacon Beach Site	No Action Alternative
Airspace and airfield operations	No effects	No effects	No effects	No effects
Land use	Short-term, less-than-significant adverse effects Long-term, significant-but-mitigable adverse effects	Short-term, less-than-significant adverse effects Long-term, significant-but-mitigable adverse effects	Short-term, less-than-significant adverse effects Long-term, significant-but-mitigable adverse effects	No effects

<b>Resource Area</b>	<b>Alternative 1: Cleveland Gate Site</b>	<b>Alternative 2: Youth Center Site</b>	<b>Alternative 3: Beacon Beach Site</b>	<b>No Action Alternative</b>
Visual resources	No effects	No effects	No effects	No effects
Air quality and greenhouse gases	Short- and long-term, less-than-significant adverse effects	Short- and long-term, less-than-significant adverse effects	Short- and long-term, less-than-significant adverse effects	Long-term, less-than-significant adverse effects
Noise	Short-term, less-than-significant adverse effects Long-term, significant-but-mitigable adverse effects	Short- and long-term, less-than-significant adverse effects	Short- and long-term, less-than-significant adverse effects	No effects
Geology	No effects	No effects	No effects	No effects
Soils	Short-term, less-than-significant adverse effects	Short-term, less-than-significant adverse effects	Short-term, less-than-significant adverse effects	No effects
Water resources	Short-term, negligible adverse effects	No effects	No effects	No effects
Biological resources	Short-term, negligible adverse effects	Long-term, less-than-significant adverse effects	Short-term, negligible adverse effects	No effects
Cultural resources	No effects	No effects	Short- and long-term, significant-but-mitigable adverse effects	No effects
Hazardous materials and hazardous wastes	Short-term, less-than-significant adverse effects Long-term beneficial effects	Short-term, less-than-significant adverse effects Long-term beneficial effects	Short-term, less-than-significant adverse effects Long-term beneficial effects	No effects
Infrastructure and utilities	Short-term, less-than-significant adverse effects Long-term beneficial effects	Short-term, less-than-significant adverse effects Long-term beneficial effects	Short-term, less-than-significant adverse effects Long-term beneficial effects	No effects
Transportation and traffic	Short- and long-term, less-than-significant adverse effects	Short- and long-term, less-than-significant adverse effects	Short- and long-term, less-than-significant adverse effects	Long-term effects may or may not occur
Safety and health	Short-term, less-than-significant adverse effects Long-term, significant-but-mitigable adverse effects Long-term beneficial effects	Short-term, less-than-significant adverse effects Long-term beneficial effects	Short-term, less-than-significant adverse effects Long-term beneficial effects	Long-term effects may or may not occur
Socioeconomics	Short- and long-term beneficial effects	Short- and long-term beneficial effects	Short- and long-term beneficial effects	Long-term effects could be expected
Protection of children	Short-term, less-than-significant adverse effects Long-term, significant-but-mitigable adverse effects Long-term beneficial effects	Short-term, less-than-significant adverse effects Long-term beneficial effects	Short- and long-term, less-than-significant adverse effects Long-term beneficial effects	Long-term, less-than-significant adverse effects

## 2.7.2 Mitigation by Alternative

Table 2.7-2 summarizes mitigation measures by alternative for resources that would be affected by significant adverse effects. BDS and the DAF would determine the responsibility for implementing and monitoring the mitigation measures listed in the table to ensure they are carried out. It is noted that Alternative 1 noise mitigation construction measures would increase BDS's school construction costs by 25–40 percent as well as construction time (Plank 2025e, personal communication). The site also would require long-term maintenance associated with noise mitigation. It is also noted for Alternative 1 that the noise contours would still shift with environmental changes and, therefore, at times, the school site would fall within a noise contour not considered compatible with educational land uses and that the mitigation measures would not reduce noise for outdoor educational and recreational activities.

**Table 2.7-2. Mitigation Measures for Applicable Resource Areas by Alternative**

<b>Alternative 1 Resource Areas Needing Mitigation</b>	<b>Alternative 1 Mitigation Measures</b>
Land use, noise, safety and health, and protection of children	<ul style="list-style-type: none"> <li>▪ Realign Runway 14R flight track.</li> <li>▪ Site school buildings containing classrooms or other instructional spaces more than 600 ft from the site's southeasternmost property boundary, so they will be outside the 75 dB DNL noise contour.</li> <li>▪ Implement architectural-acoustical design measures in the building envelope to achieve a 30-dB NLR.</li> <li>▪ The lease shall designate any portion of the parcel located within 600 ft of the site's southeastern boundary as an exclusion area to be reserved exclusively as greenspace, with no facilities, buildings, classrooms, instructional spaces, or other improvements permitted. The southeastern portion of the Alternative 1 site that is excluded under this provision shall be securely fenced off to prevent inadvertent access by students or staff. In the event that future changes to the mission result in a measurable reduction in noise levels and the area is determined to be suitable for BDS use, the lease could be amended as necessary to reflect the changed circumstances and to permit BDS occupancy or operations—subject to any required approvals and compliance with applicable regulations.</li> </ul>
<b>Alternative 2 Resource Area Needing Mitigation</b>	<b>Alternative 2 Mitigation Measures</b>
Land use	Establish a site access plan to address gate access, movement between the gate and the school, and limit to school grounds students, faculty, staff, and visitors.
<b>Alternative 3 Resource Areas Needing Mitigation</b>	<b>Alternative 3 Mitigation Measures</b>
Land use	Establish a site access plan to address gate access, movement between the gate and the school, and limit to school grounds students, faculty, staff, and visitors.

Cultural resources	<ul style="list-style-type: none"> <li>▪ Adapt the proposed plans to avoid the NRHP-eligible resource.</li> <li>▪ Alter construction designs with stakeholder consultation to include other site protection measures.</li> <li>▪ Conduct a Phase III archaeological investigation to salvage the site prior to development. Investigation would be performed subject to Florida archaeological standards and would require an ARPA permit.</li> <li>▪ Conduct additional consultation with the ACHP, FDHR, and additional government-to-government consultation with Miccosukee Tribe of Indians of Florida, Muscogee (Creek) Nation, Poarch Band of Creek Indians, Seminole Nation of Oklahoma, Seminole Tribe of Florida, and Thlopthlocco Tribal Town prior to initiating action.</li> <li>▪ Develop mitigation measures in consultation with all parties, which could include creative mitigation measures (e.g., public education or interpretive design).</li> <li>▪ Have a qualified archaeologist apply for and obtain an ARPA permit to conduct monitoring or excavations within the APE.</li> <li>▪ Have an archaeological monitor on-site during ground-disturbing activities and follow the Tyndall AFB ICRMP SOPs.</li> <li>▪ Place temporary fencing around the boundaries of NRHP-eligible archaeological site 8BY00154 during construction.</li> </ul>
<b>No Action Alternative Resource Areas Needing Mitigation</b>	<b>No Action Alternative Mitigation Measures</b>
None	No mitigation measures would be required for any resource areas under the No Action Alternative.

*Notes:* ACHP = Advisory Council on Historic Preservation; APE = area of potential effects; ARPA = Archaeological Resources Protection Act; dB = decibel; DNL = day-night average sound level; FDHR = Florida Division of Historical Resources; ICRMP = Integrated Cultural Resources Management Plan; NLR = noise level reduction; SOP = standard operating procedure.

## SECTION 3.0      **AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

### 3.1      **Introduction**

This section describes relevant existing environmental conditions at Tyndall AFB and potential effects resulting from implementing the Proposed Action and alternatives. This EA evaluates the following resources: airspace and airfield operations, land use, visual resources, air quality, noise, geology, soils, water resources, biological resources, cultural resources, hazardous materials and waste, infrastructure and utilities, transportation and traffic, safety and health, socioeconomics, and protection of children. This EA characterizes the level of effects as follows:

- None—No effects are expected to occur.
- Negligible—The effect would not be readily perceptible when compared to existing conditions.
- Less than significant—The effect would be readily perceptible when compared to existing conditions, but not severe, widespread, or prolonged.
- Significant but mitigable—The effect would be significant but could be reduced to a less-than-significant level by incorporating proposed mitigation measures.
- Significant—The effect would be severe, widespread, or prolonged or exceed a regulatory threshold and not mitigable to a less-than-significant level.
- Beneficial—The effect would be beneficial to the resource.

#### 3.1.1      **Resources Not Carried Forward for Detailed Analysis**

Part 1.8(c) of the DoD NEPA Procedures states that DoD may use the scoping process to determine the range of issues for analysis, including identifying substantive issues and eliminating from further study non-substantive issues. After considering information gathered during scoping, factors used to evaluate the potentially affected environment, and the degree of effect of the alternatives, the 325 CES determined that airspace, geological resources, and visual resources would not experience any measurable effects, as described in Table 3.1-1.

**Table 3.1-1. Resources Not Carried Forward for Detailed Analysis**

<b>Resource Dismissed from Analysis</b>	<b>Rationale for Dismissal</b>
Airspace	The Proposed Action does not include changes to the structure, classification, or use of the National Airspace System and no anticipated effects on airspace safety or efficiency. The Proposed Action involves a slight modification to a single flight track profile to reduce noise exposure at the proposed site under Alternative 1. This change is operationally negligible and does not require any modification to existing special use airspace, controlled airspace designations, or published flight procedures. The negligible nature of the flight track adjustment ensures there is no potential for adverse effects on airspace operations or users.
Geology	The Proposed Action alternative sites are previously disturbed from past development. Construction would include site clearing, grubbing, excavation, grading, and leveling. Excavation would be conducted only to depths necessary for the facility foundation and utility connections. These ground-disturbing activities would be temporary. The Proposed Action alternative sites are relatively flat. Construction would not substantially alter the existing geology.
Visual resources	The Proposed Action alternative sites are on Tyndall AFB in developed areas of the base. Site development would be designed to be consistent with the existing visual landscapes. The school and supporting facilities would be built of materials similar to other structures on the base and would be landscaped consistent with the existing habitat using native plants.

### 3.1.2 Other Actions Considered

In accordance with Part 1.5(c)(3) of the DoD NEPA Procedures, the 325 CES reviewed other projects within and near the base and identified the following projects for consideration of effects in this EA, as shown in Figure 3.1-1 and listed in Table 3.1-2. All but one of those projects would occur on-base and could potentially occur during the same time as the school’s construction. The off-base project involves the Dupont Bridge providing access to the base. The on-base projects near Alternatives 2 and 3 are included in this EA to assess combined effects. Although the bridge project is off-base, it is included because of its critical role as the base’s northern access point.

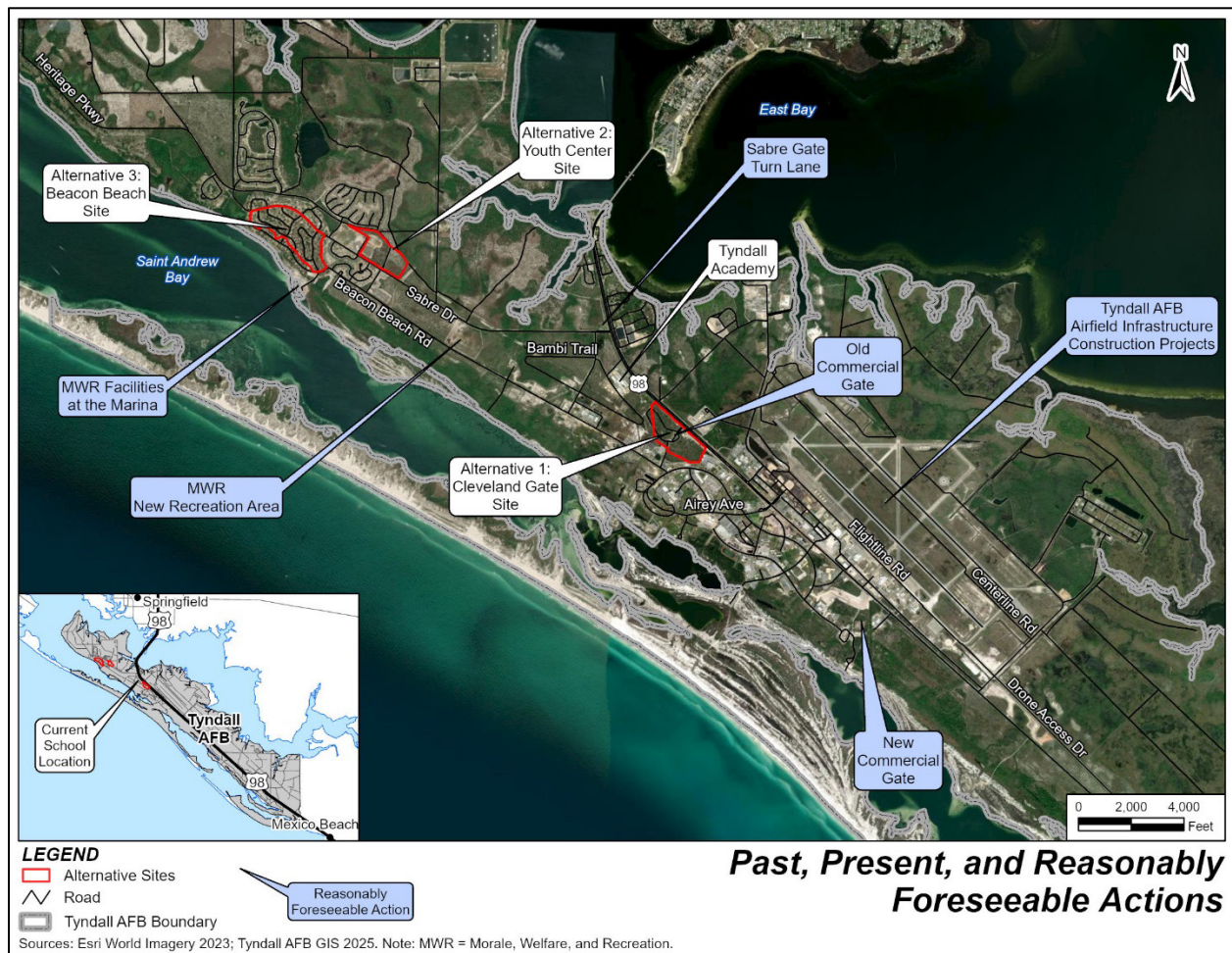


Figure 3.1-1. Other Tyndall AFB Projects.

**Table 3.1-2. Past, Present, and Reasonably Foreseeable Future Actions Considered**

<b>Project</b>	<b>Project Location</b>	<b>Description</b>	<b>Year(s)</b>	<b>Geographical Overlap with Proposed Action</b>
Extend U.S. Hwy 98 Turn Lane at Sabre Drive	Tyndall AFB	325 CES project underway to extend the southbound turn lane on U.S. Hwy 98 heading to Sabre Drive at the Sabre Gate.	2025	No, but Alternatives 2 and 3 would require use of the Sabre Gate to access the proposed school sites.
F-35A Wing Beddown at Tyndall AFB	Tyndall AFB	Beddown of an F-35A Wing at Tyndall AFB with three squadrons to train in existing airspace and ranges. Includes construction and/or modification of facilities on the base to support the F-35A operational aircraft, basing of personnel needed to operate and maintain the F-35A, and F-35A training flights at the airfield and in existing airspace associated with Tyndall AFB. No new airspace would be established as part of the F-35A action. Each squadron would have 24 PAA aircraft and 2 BAI aircraft. F-35A-specific facilities all would be in the flight line area. The F-35 Wing would bring an estimated 2,200 personnel (2,100 active-duty DAF personnel, 13 DoD civilians, and an estimated 87 BOS personnel), with 2,992 dependents (1,496 children of which 1,100 would be school age).	2021–2026	No construction or modification projects would overlap.  Operations would see an increase in base personnel and dependents.
Hurricane Michael Recovery Installation Development Projects at Tyndall AFB	Tyndall AFB	To recover mission capabilities impacted by Hurricane Michael, implementing 28 individual projects spanning six planning areas throughout the base and three multi-area projects that span more than one planning area on the base. Projects listed below and shown on Figure 3.1-1 are near alternative sites for the proposed Tyndall Academy.	2020–ongoing	See below.
Hurricane Michael Recovery Installation Development Projects at Tyndall AFB	<ul style="list-style-type: none"> <li>▪ Tyndall AFB</li> </ul>	<ul style="list-style-type: none"> <li>▪ Commercial Gate (Project ID #SA-11)                             <ul style="list-style-type: none"> <li>• One 500-SF gatehouse</li> <li>• Two 900-SF lane houses</li> <li>• Six traffic lanes (three in, three out)</li> <li>• One 3,740-SF vehicle inspection port</li> <li>• 4,500-SF canopy</li> <li>• 900-SF overwatch facility</li> <li>• 11,000-LF perimeter fence</li> </ul> </li> </ul>	2021–2025	Yes. Demolition of existing commercial gate facilities is on the Alternative 1 site.  Construction of the new commercial gate is about 2 miles south of Alternative 1.
Hurricane Michael Recovery Installation Development Projects at Tyndall AFB	<ul style="list-style-type: none"> <li>▪ Tyndall AFB</li> </ul>	<ul style="list-style-type: none"> <li>▪ MWR Facilities at the Marina (Project IDs #2000-1a and #2000-1b)                             <ul style="list-style-type: none"> <li>• 4,250-SF of pavilions</li> <li>• Boat slips</li> <li>• Floating pier</li> <li>• 42,728-SF recreation center</li> <li>• 680-SF of restrooms</li> <li>• 372-SF bathhouse</li> <li>• 98,005-SF parking</li> <li>• 1,778 ft of fencing</li> </ul> </li> </ul>	Project ID #2000-1a: has not begun  Project ID #2000-1b: 2023–2025	Yes. This project is adjacent to Alternative 3 to the southeast.

Project	Project Location	Description	Year(s)	Geographical Overlap with Proposed Action
Hurricane Michael Recovery Installation Development Projects at Tyndall AFB	Tyndall AFB	<ul style="list-style-type: none"> <li>▪ MWR New Recreation Area (Project ID #2000-1c)                             <ul style="list-style-type: none"> <li>• Courts</li> <li>• Athletic fields</li> <li>• Pavilions</li> <li>• Picnic areas</li> <li>• Outdoor swimming pool</li> <li>• Driving range</li> <li>• 290,381 SF of parking</li> <li>• 12,321 SF of sidewalk</li> <li>• Two 6,337 slabs</li> </ul> </li> </ul>	Has not begun	This project is near Alternatives 2 and 3 to the southeast, between Beacon Beach Road and Sabre Drive, just before Boy Scout Road.
Implementation of the Tyndall AFB CRIP	Tyndall AFB	Implement CRIP flood defense strategies recommended for each district on the base. For the base’s Support District, which encompasses this EA’s Alternative 1 site, this includes beach/dune protection enhancement, floodproofing at-risk buildings, and rebuilding to the DFE. For the base’s Sabre District, which encompasses this EA’s Alternative 2 and 3 sites, this includes beach/dune protection enhancement, building levees around the base’s WWTP and housing areas, floodproofing at-risk buildings, and rebuilding to the DFE.	2020–2100	Yes, overlaps with Alternatives 2 and 3.
Relocation of F-22 FTU and 95th FS from Tyndall AFB	Tyndall AFB	Hurricane Michael-induced relocation of the F-22 FTU and the 95th FS personnel resulted in the reduction of about 1,400 active-duty billets from Tyndall AFB and reduced the number of dependents by an estimated 1,904, including 952 children, of whom about 700 were of school age.	2018	No construction was associated with this project.  Operations saw a reduction in base personnel and dependents.
Tyndall AFB Airfield Infrastructure Construction Projects	Tyndall AFB	Implement four infrastructure construction projects at the Tyndall AFB airfield to support airfield operations and safety: (1) construct a perimeter security fence along the north side of the airfield; (2) construct crossings for vehicles and equipment over existing drainage channels at the north and south ends of Runway 01/19 (drone runway); (3) construct a perimeter security fence between the drone tow-way and U.S. Hwy 98; and (4) construct a fueling station, vehicle parking areas and driveway, and explosives trailer parking area in the 7000 Area on the northeastern side of the airfield.	2024–2026	No overlap with Alternatives 1, 2, or 3.
Replacement of DuPont Bridge	Bay County	FDOT is replacing DuPont Bridge that connects the base with the rest of Bay County. The new bridge is being built east of the existing bridge. FDOT officials estimate it will take 3–4 years to complete.	2025–2029	No. The project is just northeast of Tyndall AFB.

Sources: 325 FW 2020, 2024a, 2024b, 2024c; ABC Group 2024; AFCEC 2020; Bay County 2025; ECRC 2024; FDOT 2025; Panama City 2025; USAF 2023a.

Notes: BAI = Backup Aerospace Vehicle Inventory; BOS = Base Operating Support; CRIP = Coastal Resilience Implementation Plan; DFE = design flood elevation; FDOT = Florida Department of Transportation; FS = Fighter Squadron; FTU = Formal Training Unit; ID = identification; MWR = Morale, Welfare, and Recreation; PAA = Primary Aerospace Vehicle Authorized; WWTP = wastewater treatment plant.

## 3.2 Land Use

The region of influence (ROI) for land use is the entirety of Tyndall AFB. Effects on land use would be considered significant if the Proposed Action violated an applicable federal, state, or local land use or zoning regulation or created an environment incompatible with an existing land use to the extent that public health or safety was threatened.

### 3.2.1 Affected Environment

#### 3.2.1.1 Existing Land Use

This land use section is informed by the Tyndall AFB 2015 *Installation Development Plan (IDP)* and 2019 *Recovery Plan – Analysis of Alternatives Report (Recovery Plan)*. Tyndall AFB prepared the Recovery Plan post-Hurricane Michael to serve as a guide to rebuilding the base, with a focus on areas of the base with the most impacted facilities, and to support an update of the IDP (AECOM 2019).

The IDP identifies 13 distinct land use categories on the base. Table 3.2-1 lists the IDP existing and future land use categories assigned to each Action Alternative site. No changes to the existing or future land use categories of these sites are proposed in the Recovery Plan.

**Table 3.2-1. Land Use Categories at Alternative 1, 2, and 3 Sites**

Site	Existing Land Use Categories	Future Land Use Categories	Existing and Future Bordering Land Use Categories
Alternative 1: Cleveland Gate Site	Industrial	Industrial	Administrative, Community (Service), Industrial, Open Space
Alternative 2: Youth Center Site	Housing (Accompanied), Open Space, Outdoor Recreation	Community (Service), Housing, Outdoor Recreation, Open Space	Housing (Accompanied), Open Space
Alternative 3: Beacon Beach Site	Housing (Accompanied)	Housing (Accompanied)	Housing (Accompanied), Open Space, Outdoor Recreation, Water

Source: HDR 2015.

Every facility on the installation sustained at least some damage from Hurricane Michael, with more than 50 percent of the facilities being significantly damaged. The base is in the process of rebuilding. The housing and recreational facilities at the Youth Center Site (Alternative 2) and the Beacon Beach Site (Alternative 3) were destroyed by the hurricane and, at the time this EA was being prepared, were open space. The Cleveland Gate Site (Alternative 1) at that time housed the old commercial gate, and the remainder of the site was open space.

#### 3.2.1.2 Land Management Districts

The Recovery Plan identifies seven land management districts on Tyndall AFB, sectioned by land usage and function. The Youth Center and Beacon Beach sites are in the Sabre District (Figure 3.2-1) (AECOM 2019). The Sabre District contains military family housing; Morale, Welfare, and Recreation facilities; a boat marina for personally operated vehicle use; and water treatment facilities (WTFs) for the base (Tyndall AFB 2025a). It also contains the current Tyndall Academy. The Cleveland Gate Site is mostly in the Sabre District, with a small portion in the Support District (Figure 3.2-1). The Support District provides amenities for Airmen, their families, DoD civilians, and military retirees, such as administrative buildings, the base exchange and commissary, dormitories, a fitness center, lodging, and a medical clinic (AECOM 2019; Tyndall AFB 2025a).

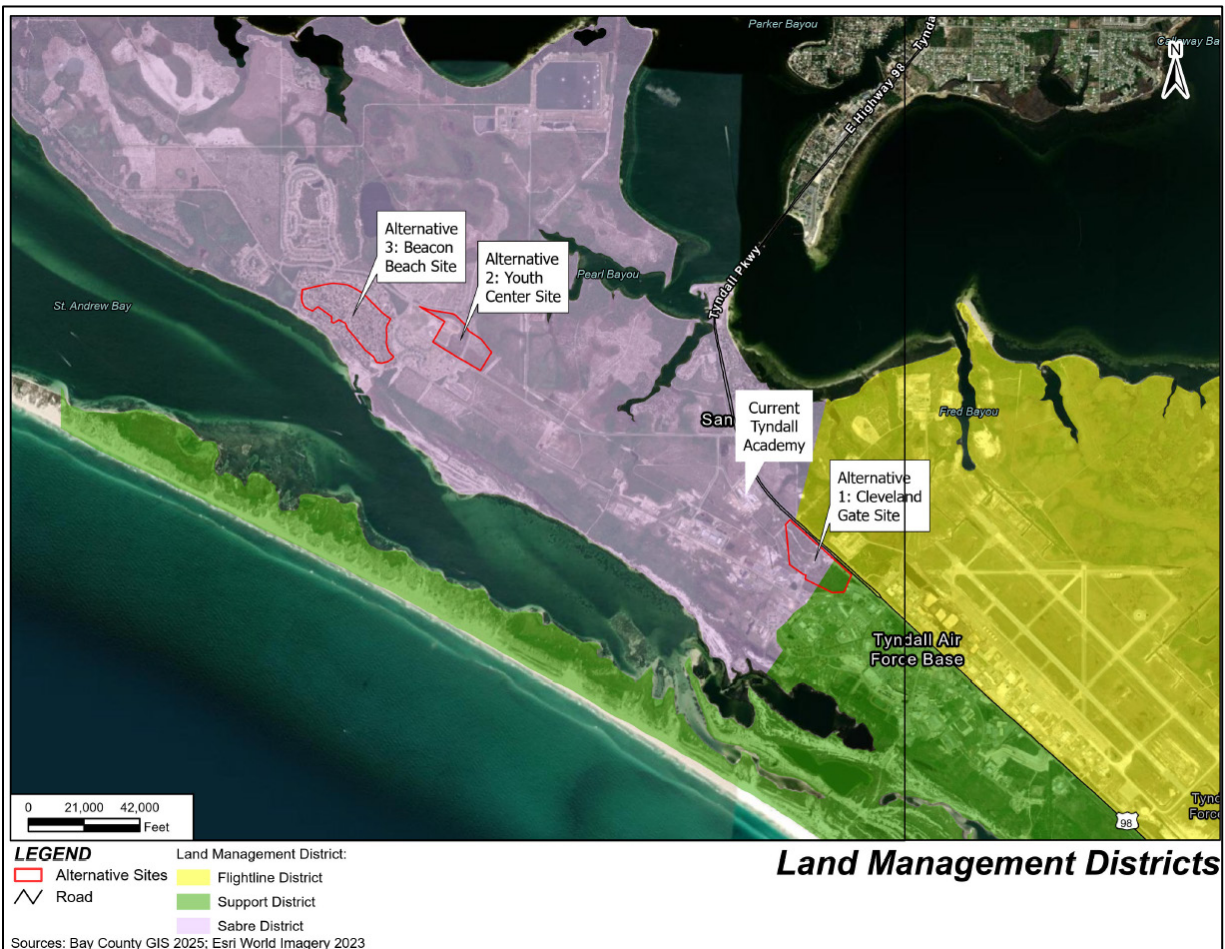


Figure 3.2-1. Tyndall AFB Land Management Districts.

### 3.2.1.3 Land Use Constraints

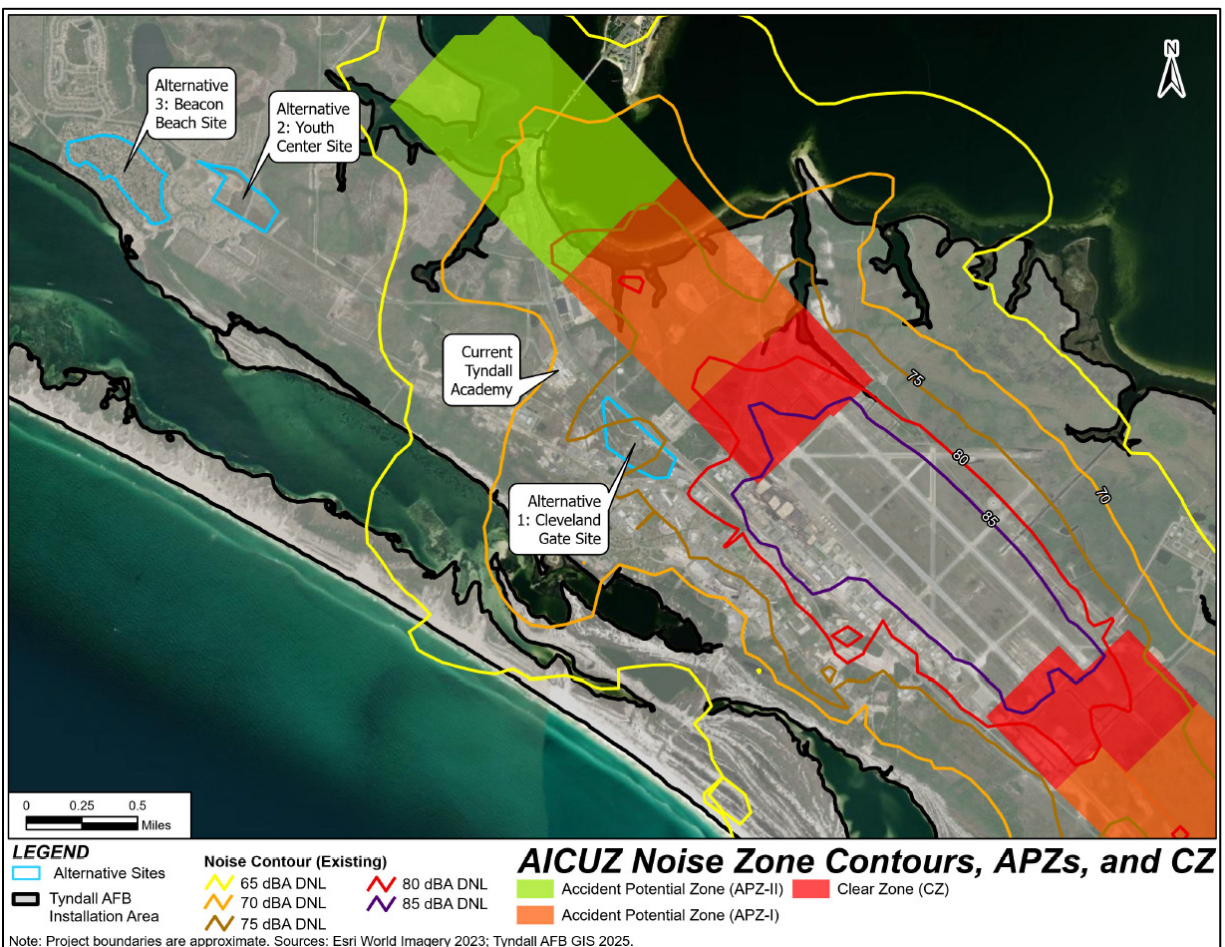
Land use constraints are natural or built elements that limit the operation of Tyndall AFB’s airfields, buildings, roadways, training ranges, utility systems, and other infrastructure. These development constraints—categorized as operational, natural and environmental, or built as described in the following paragraphs—are present throughout the base and are considered in planning future development, as discussed throughout this EA.

**Operational.** Operational planning constraints are generally related to flight operations and maintenance of aircraft. These constraints include munitions, potentially hazardous cargo, training, ranges, and similar operational requirements that can limit future development activity. Identified operational constraints at Tyndall AFB are associated with air installations compatible use zones (AICUZ), airfield clearances, antiterrorism, Explosive Safety Quantity-Distance arcs, and runway safety conditions that could limit development potential. Operational constraints do not necessarily restrict mission expansion and growth potential at the installation because they are often also mission requirements (325 FW 2020). Operational constraints relevant to the Proposed Action are AICUZ, antiterrorism and overall base security as related to site accessibility, and runway safety conditions.

According to the Department of the Air Force Handbook 32-7084, *AICUZ Program Manager’s Guide*, DoDI 4165.57, *Air Installations Compatible Use Zones*, and Tyndall AFB’s AICUZ study, educational services land uses and related structures are compatible only in areas with noise levels of 70–74-decibels (dB) day-night average sound level (DNL) if measures to achieve noise level reduction (NLR) of at least 30 dB are incorporated and are not compatible and should be prohibited in areas with noise levels of more than 75 dB DNL (DAF 2017; USAF 2023a). The NLR measures must be incorporated into the design and construction of portions of the building where the public is received, office areas, noise sensitive areas, or where the normal noise level is low (DAF 2017; USAF 2023a). The Cleveland Gate Site is within AICUZ noise zone contours of 70–74 dB DNL and more than 75 dB DNL (Figure 3.2-2). As environmental conditions like air pressure and temperature can fluctuate, noise contours are not fixed boundaries. When proposed development falls within multiple noise contours, DoDI 4165.57 states that the guidelines for the highest noise zone should be applied to the entire parcel.

The Beacon Beach and Youth Center sites are in the interior of the base. This creates concerns about base security and the ability to limit movement of civilian students, faculty, staff, and visitors once on the base.

The AICUZ also addresses runway safety conditions. None of the Action Alternative sites are in the airfield runway clear zone (CZ) or accident potential zones (APZs) (Figure 3.2-2).



**Figure 3.2-2. AICUZ Noise Zone Contours, APZs, and CZs.**

**Natural and Environmental.** Environmental constraints include cultural and natural resources, ERP sites, and hazardous/non-hazardous waste and material, which can constrain development and restrict the location of mission activities. Potential natural planning constraints on Tyndall AFB include bird/wildlife aircraft strike hazard (BASH), cultural resources, ERP, soils and geology, threatened and endangered species, topography and physiology, and wetlands and floodplains (325 FW 2020).

**Built.** Built constraints are related to the condition, functionality, and effectiveness of infrastructure systems, facilities, and other man-made improvements. Existing development at Tyndall AFB can impose significant limitations on current and future missions. Identified built constraints at Tyndall AFB include airfield infrastructure, historic structures, historical and archaeological sites, transportation infrastructure and facilities, and utility systems (325 FW 2020).

Table 3.2-2 lists known land use constraints for the Alternative Action sites. They are addressed in the appropriate resource sections in this EA.

**Table 3.2-2. Known Land Use Constraints at Alternative Sites 1, 2, and 3**

Site	Known Land Use Constraints
Alternative 1: Cleveland Gate Site	<ul style="list-style-type: none"> <li>▪ AICUZ noise zone contour of &gt; 75 dB DNL</li> <li>▪ Nearby ERP sites</li> <li>▪ Nearby fuel storage tank</li> <li>▪ Potential hazardous materials (e.g., ACM and LBP) from former development</li> </ul>
Alternative 2: Youth Center Site	<ul style="list-style-type: none"> <li>▪ Base security – site accessibility</li> <li>▪ Potential hazardous materials (e.g., ACM and LBP) from former development</li> </ul>
Alternative 3: Beacon Beach Site	<ul style="list-style-type: none"> <li>▪ Base security – site accessibility</li> <li>▪ Cultural resource sites</li> <li>▪ Nearby ERP site</li> <li>▪ Potential hazardous materials (e.g., ACM and LBP) from former development</li> </ul>

Notes: ACM = asbestos-containing materials; LBP = lead-based paint.

## 3.2.2 Environmental Consequences

### 3.2.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short-term, less-than-significant adverse effects and long-term, significant-but-mitigable adverse effects on land use would be expected.

**Construction.** Short-term, less-than-significant adverse effects would be expected from construction and demolition (C&D) activities, including dust and noise emissions, and would have temporary adverse effects on adjacent on-base land uses.

**Operations.** Long-term, significant-but-mitigable adverse effects would be expected because of noise and land use incompatibility per the Department of the Air Force Handbook 32-7084, DoDI 4165.57, and Tyndall AFB’s AICUZ study. Per DoDI 4165.57, the AICUZ program is intended to “discourage noise-sensitive land uses in areas of higher noise exposure” and identifies “educational facilities” as a noise-sensitive use whose compatibility can decline as DNL increases. Mitigation measures would be implemented to reduce noise, as described in Section 3.4.2.6. Those measures include flight track realignment, implementing architectural-acoustical design measures in the building envelope to achieve a 30 dB NLR, and siting the school building on the northern portion of the parcel outside the 75 dB DNL noise contour.

However, because noise contours shift with environmental changes and are not absolute boundaries, the higher noise contour may sometimes apply to this site.

Operating the Tyndall Academy at the Cleveland Gate Site would be compatible with existing and planned adjacent future land use as related to land use categories and land management districts. There would be no conflicts with established land uses on-base in the Sabre or Support Districts. Alternative 1 would change the Cleveland Gate Site land use from Industrial to Community (Service). Adjacent to the site are Gulf Coast State College, Embry-Riddle University, and Troy University Tyndall AFB satellite campuses in an area already designated for Community (Service). The existing open space on the Cleveland Gate Site has no functional use that would be lost. The existing Industrial land use on the Cleveland Gate Site is the commercial vehicle inspection gate that would be closed and its function moved to the new commercial gate.

### 3.2.2.2 Proposed Action Alternative 2: Youth Center Site

Short-term, less-than-significant adverse effects and long-term, significant-but-mitigable adverse effects on land use would be expected.

**Construction.** Short-term, less-than-significant adverse effects would be expected from C&D activities, including dust and noise emissions, and would have temporary adverse effects on adjacent on-base land uses.

**Operations.** Because of Alternative 2's location inside the base's security fence, long-term, significant-but-mitigable adverse effects would result as the Alternative 2 site does not fully satisfy the land use accessibility criteria. To address the issue of off-base students, faculty, staff, and visitor access to the base, BDS and Tyndall AFB would mitigate the security concerns by establishing a site access plan. The plan would address gate access, movement between the gate and the school, and limiting to and management within the school grounds for students, faculty, staff, and visitors. Development of the plan would require additional funds and time. Depending on the measures they select to control site access, additional NEPA analysis could be required.

Operating the Tyndall Academy at the Youth Center Site would be compatible with existing and planned future land use as related to land use categories and land management districts. There would be no conflicts with established land uses on-base in the Sabre District. Alternative 2 would change the Youth Center Site land use from Housing (Accompanied), Open Space, and Outdoor Recreation to Community (Service). Adjacent to the site is Tyndall AFB's Youth Center in an area already designated for Community (Service). The outdoor recreation areas that were on the Youth Center Site have no functional use that would be lost. Tennis courts and a portion of Prime Beef Road are the only existing facilities on the site that would require demolition.

### 3.2.2.3 Proposed Action Alternative 3: Beacon Beach Site

Short-term, less-than-significant adverse effects and long-term, significant-but-mitigable adverse effects on land use would be expected, like those of Alternative 2. Short-term effects would be from C&D activities, and long-term effects would result from the Alternative 3 site being inside the base's security fence and would require BDS and Tyndall AFB to mitigate the security concerns by establishing a site access plan to address gate access, movement between the gate and the school, and limiting to and management within the school grounds for students, faculty, staff, and visitors. Development of the plan would require additional funds and time.

#### **3.2.2.4 No Action Alternative**

No effects on land use would be expected. The Proposed Action would not be implemented, and the three Action Alternative sites would remain in their current state.

#### **3.2.2.5 Combined Effects with Other Actions**

No combined effects would be expected. All Action Alternative sites are located in land management districts that would support the construction and operation of a school.

#### **3.2.2.6 Mitigation**

BDS and Tyndall AFB would implement the following mitigation measures, detailed in Section 3.4.2.6, to address the significant-but-mitigable, noise-related land use incompatibility at the Alternative 1 site: flight track realignment, siting the school building on the northern portion of the parcel outside the 75 dB DNL noise contour, excluding the portion of the parcel located within 600 ft of the site's southeastern boundary, and implementing architectural-acoustical design measures in the building envelope to achieve a 30-dB NLR. To mitigate the security concerns for Alternatives 2 and 3, BDS and Tyndall AFB would establish a site access plan to address gate access, movement between the gate and the school, and limiting students, faculty, staff, and visitors to school grounds. Best management practices (BMPs) are provided in Appendix E.

### **3.3 Air Quality and Greenhouse Gases**

The air quality ROI for Tyndall AFB is the Mobile-Pensacola-Panama City-Southern Mississippi Interstate Air Quality Control Region (40 CFR § 81.68). Effects are significant if emissions fail Clean Air Act (CAA) conformity requirements or contribute to any violation of air regulations. Air quality encompasses regional pollution, emission sources, and governing regulations, with pollution defined as harmful outdoor atmospheric contaminants in amounts that threaten health or interfere with life and property. Under NEPA and the CAA, air quality refers to the condition of the atmosphere in relation to pollutants that may affect human health, the environment, and visibility. Federal agencies are required to assess potential impacts on air quality, including criteria pollutants, hazardous air pollutants (HAPs), and greenhouse gases (GHGs), to ensure compliance with the CAA and applicable regional air quality standards. For each proposed action, DAF must evaluate whether the action would (1) generate emissions exceeding the General Conformity rule (GCR) de minimis threshold values or (2) contribute to a violation of any federal, state, or local air regulation. The estimated annual net emissions from this action are below all applicable significance thresholds; therefore, the action would not cause or contribute to a GCR conformity exceedance.

#### **3.3.1 Affected Environment**

##### **3.3.1.1 National Ambient Air Quality Standards and Attainment Status**

USEPA Region 4 and FDEP are the governing bodies for Florida air quality standards. The CAA assigns USEPA the responsibility for establishing the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50), which specify acceptable concentration levels of six criteria pollutants: particulate matter (measured as both particulate matter less than or equal to 10 microns in diameter [PM<sub>10</sub>] and particulate matter less than or equal to 2.5 microns in diameter [PM<sub>2.5</sub>]), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), and Pb (Appendix F). Short-term NAAQS (over 1-, 8-, and 24-hour periods) have

been established for pollutants contributing to acute health effects, while long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. Each state has the authority to adopt standards stricter than those established under the federal program, but the State of Florida has accepted the federal standards (USEPA 2019).

### 3.3.1.2 Existing Emissions and Permitting

Tyndall AFB is in Bay County, Florida, which is in attainment for all criteria pollutants (USEPA 2025b). The GCR, therefore, does not apply to the Proposed Action. A facility may elect to limit operations to ensure pollutant emissions are less than 100 tons per year (tpy) and HAPs are less than 25 tpy to avoid Title V Permit requirements. Tyndall AFB has elected to accept operating limits to remain below Title V Major Source quantities. The limits and restrictions for Florida are outlined in the Federally Enforceable State Operating Permit No. 0050024-021-AC, expiration September 30, 2025 (FDEP 2023). Tyndall AFB is in the process of renewing this permit. This permit regulates specific major stationary sources of air emissions at Tyndall AFB and requires that emissions from these sources do not exceed major source values regulated under Title V for air permitting. Activities that generate air pollutant emissions at Tyndall AFB include fossil fuel boilers; fuel transfers; gas, diesel, and jet fuel storage tanks; stationary emergency generator engines; and surface preparation and coating. The permit requirements include annual periodic inventory of all significant stationary sources of air emissions for each of the criteria COC as well as monitoring and recordkeeping. Table 3.3-1 lists annual emissions from significant stationary sources on the base.

**Table 3.3-1. Tyndall AFB Annual Emissions for Significant Stationary Sources as of 2023**

Pollutant	Emissions (tpy)
CO	2.14
NO <sub>2</sub>	3.24
PM <sub>10</sub>	0.52
PM <sub>2.5</sub>	0.57
SO <sub>2</sub>	0.01
VOCs	11.50

Source: DAF 2022.

Notes: VOCs = volatile organic compounds.

### 3.3.2 Environmental Consequences

The 325 CES estimated through the Air Conformity Applicability Model (ACAM) the total reasonably foreseeable net direct and indirect emissions associated with each alternative on a calendar-year basis, beginning with the start of the action and continuing until “steady-state” emissions are reached—no net gain or loss occurs—and the action is fully implemented. ACAM is a robust computer model developed and used primarily by DAF planners in analyzing environmental impacts. It accommodates all these activities, providing a consistent method for evaluating potential emissions.

#### 3.3.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short- and long-term, less-than-significant adverse effects on air quality would be expected. Short-term effects would be caused by air emissions generated during construction, and long-

term effects would be caused by operational emissions from the proposed school and supporting infrastructure. Alternative 1 would not (1) generate emissions that would exceed the GCR insignificant threshold values or (2) contribute to a violation of any federal, state, or local air regulation. Criteria pollutants would be expected to remain below *de minimis* levels and meet permitted limits when combined with existing facility-wide emissions under Alternative 1. None of the estimated annual net emissions from these actions would exceed insignificance indicators; therefore, the action would not cause or contribute to a conformity exceedance.

**Construction.** ACAM was used to calculate emissions from constructing and demolishing facilities, grading land, and construction-related transportation, including construction workers commuting. These air emissions were compared to the GCR's *de minimis* threshold values to assess potential effects on air quality. Alternative 1 was analyzed for conformity as required by DAFMAN 32-7002, *Environmental Compliance and Pollution Prevention*; the GCR (40 CFR Part 93 Subpart B); and the *DAF Air Quality Environmental Impact Analysis Process (EIAP) Guide* (AFCEC 2024a). ACAM standardizes and simplifies emissions calculations based on the proposed activities incorporating default assumptions for emissions from construction equipment and personnel. ACAM offers summary and detailed outputs that include the assumptions and equations used to calculate emissions. This section provides a summary of the ACAM analysis and Appendix G provides the full ACAM and conformity analyses.

Construction emissions were estimated for fugitive dust, on- and off-road diesel equipment and vehicles, worker trips, architectural coatings, and paving off-gases. Criteria air pollutant emissions were estimated for the activities listed in Table 3.3-2 when using ACAM. The DAF included in the ACAM assumptions site grading to account for air emissions from C&D activities. According to USEPA, C&D debris is not considered municipal solid waste. It typically includes materials such as asphalt concrete, asphalt shingles, brick and clay tile, concrete, drywall and plaster, steel, and wood products (USEPA 2024b). The ACAM model was simulated assuming the project would happen in a single year for cumulative emissions for all construction phases to include demolition, site clearing, grading, and debris estimated to be hauled off-site as listed in the assumptions in Appendix G. ACAM default parameters were assumed except for construction hauling trips, construction vendor trips, and personnel and construction commute distances. Construction hauling and worker commutes were assumed to average 40 miles round trip (20 miles one way). The assumption was based on the average commute times by U.S. Census Bureau of one-way travel times for Florida (USCB 2023a).

**Table 3.3-2. ACAM Inputs (rounded) for Alternative 1**

Activity over 12 Months	ACAM Input of Total
Construction: Demolition	16,000 SF
Construction: Disposal volumes	30,000 CY
Construction: Facility construction	253,000 SF
Construction: New paving	340,000 SF
Construction: Site grading	2,300,000 SF
Construction: Utility trenching	70,000 SF
Operations: 135-HP emergency generator	4
Operations: 2,000-gallon AST	4
Operations: Student transportation	900

Notes: AST = aboveground storage tank; HP = horsepower.

Table 3.3-3 presents the estimated air pollutant emissions from Alternative 1 construction activities. It includes the least restrictive insignificance thresholds for criteria pollutants to determine the level of effects of these emissions sources. As shown in the table, the total emissions would remain below *de minimis* levels and under the insignificance thresholds for each of the criteria pollutants; therefore, Alternative 1's effects on air quality during construction would be short term and less than significant.

**Table 3.3-3. ACAM-Estimated Construction Emissions (tpy) for Alternative 1**

Site	CO	NH <sub>3</sub>	NO <sub>x</sub>	Pb	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>x</sub>	VOC
Alternative 1: Cleveland Gate Site	9.62	0.5	7.46	0.00	0.278	204.014	0.018	6.50
Insignificance Indicator	250	250	250	25	250	250	250	250

Source: ACAM reports (Appendix G).

Notes: NH<sub>3</sub> = ammonia; NO<sub>x</sub> = nitrogen oxides; SO<sub>x</sub> = sulfur oxides; VOC = volatile organic compound.

Reasonable precautions would be taken to prevent airborne dust, including the use of water to control dust from building construction, demolition, land clearing, and road grading. Cleared or graded areas would be seeded or vegetated promptly to minimize fugitive dust. Given the sustained potential for emissions over the estimated 27-month construction period, BDS would coordinate with construction teams to ensure that these BMPs (Appendix E) are effectively implemented. To provide real-world context to the emission effects on a county scale, an action's net change in emissions is compared relative to the county where the action would occur—in this case, Bay County. The 2020 National Emissions Inventory county data was used for the comparison (USEPA 2020). For this comparison, Alternative 1 was assumed to occur in 2027. The total criteria pollutants relative significance (tpy) for mobile and nonpoint source emissions for Alternative 1 are provided in Appendix G.

Alternative 1 would result in minimal increases in criteria pollutant emissions relative to 2020 Bay County totals. The highest effects would be from PM<sub>10</sub> at 0.06 percent of county-wide emissions, but even this level would remain well below regulatory concern levels. Other pollutants such as nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) would each be around 0.002 percent, while CO, PM<sub>2.5</sub>, and sulfur oxides (SO<sub>x</sub>) would contribute less than 0.001 percent. Overall, Alternative 1's emissions would be negligible in scale and would not significantly affect local air quality or contribute to exceedances of air quality standards.

**Operations.** The DAF's annualized steady-state operational emissions assumes that operations would commence the following year post-construction. Operations would not exceed GCR insignificance thresholds or violate any federal, state, or local air regulations. Criteria pollutants would remain below *de minimis* levels and within permitted limits when combined with existing facility-wide emissions. Operational emissions encompass backup power, fuel storage, and fuel usage. Notably, ACAM's default settings for building heating are based on state and regional averages. Table 3.3-4 presents the estimated annual net operational emissions under Alternative 1, which would be below the insignificance indicators; therefore, operations under Alternative 1 would not be expected to cause or contribute to any exceedance of NAAQS and would have a long-term, less-than-significant effect on air quality.

**Table 3.3-4. ACAM-Estimated Operational Emissions (tpy) for Alternative 1<sup>a</sup>**

Site	CO	NH <sub>3</sub>	NO <sub>x</sub>	Pb	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>x</sub>	VOC
Alternative 1: Cleveland Gate Site	20.683	0.223	0.707	0.000	0.062	0.144	0.035	1.640
Insignificance Indicator	250	250	250	25	250	250	250	250

Source: ACAM reports (Appendix G).

Notes: NH<sub>3</sub> = ammonia.

a The operations emissions assume additional sources of emissions from the student drop-off area, fueling, and maintenance of emergency generators.

**GHG Emissions Analysis.** GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of carbon dioxide equivalents (CO<sub>2</sub>e). All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and global warming potential from the most current *Air Emissions Guide for Air Force Stationary Sources*, *Air Emissions Guide for Air Force Mobile Sources*, and/or *Air Emissions Guide for Air Force Transitory Sources* (AFCEC 2024b, 2024c, 2024d). Table 3.3-5 summarizes the Alternative 1 action-related GHG emissions on a calendar-year basis through the projected steady state of the action. Appendix G provides the full analysis.

**Table 3.3-5. Total GHG Relative Significance (metric tons per year) for Action-Related Annual GHG Emissions for Alternative 1**

Time Period	Location	CH <sub>4</sub>	CO <sub>2</sub>	CO <sub>2</sub> e <sup>1</sup>	N <sub>2</sub> O
2027-2029	State Total	2,209,711	909,618,588	1,033,022,289	232,195
2027-2029	U.S. Total	102,507,647	20,545,816,716	25,006,780,918	6,002,831
2027-2029	Action	0.224006	6,039	6,096	0.179378
2027-2029	Percent of State Totals	0.00001014%	0.00066392%	0.00059007%	0.00007725%
2027-2029	Percent of U.S. Totals	0.00000022%	0.00002939%	0.00002438%	0.00000299%

Source: ACAM reports (Appendix G).

Notes: <sup>1</sup> Accounting for the global warming potential of each GHG.

The GHG emissions from Alternative 1, estimated to occur in 2027–2029, would be negligible when compared to both state and national totals. Individually, CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions from Alternative 1 also would be well below 0.001 percent of corresponding state and U.S. totals, indicating that the action would have no meaningful contribution to overall GHG emissions and would not be considered significant under regulatory thresholds.

### 3.3.2.2 Proposed Action Alternative 2: Youth Center Site

Short- and long-term, less-than-significant adverse effects on air quality would be expected. The effects of Alternative 2 on air quality would be similar to the effects of Alternative 1, with no exceedance of GCR insignificance thresholds, no violations of air regulations, criteria pollutants below *de minimis* levels, and negligible GHG emissions compared to state and national totals. All regulations and BMPs applicable to Alternative 1 also apply to Alternative 2. Since the proposed school's design and operations are consistent across all three sites, site location does not affect the air quality analysis, although site size differences (40–80 acres) are accounted for in the ACAM. Therefore, environmental and air quality assessments use identical design and

operational parameters regardless of location. The ACAM and conformity analyses for Alternative 2 are in Appendix G.

### **3.3.2.3 Proposed Action Alternative 3: Beacon Beach Site**

Short- and long-term, less-than-significant adverse effects on air quality would be expected. The nature and overall effects of Alternative 3 on air quality would be similar to those of Alternative 1, and as explained under Alternative 2. A comparative analysis was conducted across all three alternatives. The results indicate only minute differences in projected emission rates on the order of 0.001 percent. These changes are negligible and do not alter the overall significance determination. The impacts under Alternative 1 are not significant, and Alternative 3 would result in the same level of insignificance. In fact, Alternative 3 could potentially yield slightly lower emissions due to the reduced likelihood of encountering known ERP-related sources. The ACAM analysis and conformity analysis for Alternative 3 are provided in Appendix G.

### **3.3.2.4 No Action Alternative**

Long-term, less-than-significant adverse effects on air quality would be expected under the No Action Alternative. Reductions of emissions from a new, energy-efficient school would not be realized, resulting in long-term, less-than-significant effects.

### **3.3.2.5 Combined Effects with Other Actions**

Short-term and long-term, less-than-significant adverse effects on air quality are expected from estimated emissions of criteria pollutants, GHGs, fugitive dust, and VOCs associated with the Proposed Action. Construction of the school under any Action Alternative would cause temporary, localized emissions that remain below regulatory significance thresholds. Operational activities would not affect permitted stationary sources or require air permit modifications, making emissions from construction and operation *de minimis* and would not contribute significant additions to the effects combined with other actions.

### **3.3.2.6 Mitigation**

No mitigation for air quality would be required. BMPs are provided in Appendix E.

## **3.4 Noise**

Tyndall AFB would comprise the ROI for noise. Effects would be considered significant if noise from construction and operations activities violated a federal, state, or local noise ordinance; created a noise environment incompatible with an existing land use; or produced sound that could harm people wearing safety equipment.

Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air, and are sensed by the human ear. Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise, distance between the noise source and receptor, receptor sensitivity, and time of day. Noise is often generated by activities essential to a community's quality of life, such as aircraft operations, construction, or vehicular traffic.

Sound is characterized by intensity and frequency. Intensity is quantified using sound pressure level, measured in dBs, a logarithmic unit expressing the ratio of a given sound pressure to a standard reference level. Frequency, measured in hertz (Hz), represents the number of sound

wave cycles per second. The human ear perceives different frequencies with varying sensitivity. The A-weighted dB (dBA) principle applies a frequency-dependent filter designed to mimic the ear's natural sensitivity, attenuating very low and very high frequencies while preserving midrange energy where human hearing is most acute. Table 3.4-1 provides examples of everyday sounds and their corresponding sound levels.

**Table 3.4-1. Common Sounds and Their Levels**

Outdoor	Sound Level (dBA)	Indoor
Ambulance siren at 100 ft	100	Rock band
Gas lawnmower at 3 ft	90	Food blender at 3 ft
Downtown (large city)	80	Garbage disposal
Heavy traffic at 150 ft	70	Vacuum cleaner at 10 ft
Normal conversation	60	Normal speech at 3 ft
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room

Source: Harris 1998.

The sound pressure level noise metric describes steady noise levels, though few noises are constant. To more accurately characterize noise environments, additional metrics have been developed, including:

- DNL: A 24-hour average sound level with a 10 dB penalty applied to nighttime, 2200–0700, noise events. Used for long-term planning and land use compatibility.
- Maximum Sound Level ( $L_{max}$ ): The maximum sound level reached during a single noise event (e.g., an overflight).
- Number Above (NA): The number of noise events per hour exceeding a defined threshold (e.g., NA65 = number of events >65 dBA).
- Time Above (TA): The cumulative amount of time per hour during which noise levels exceed a specified threshold (e.g., TA70 = total seconds per hour >70 dBA.)
- NLR: The amount of sound attenuation, expressed in dBs, that a building's structure and acoustical treatments to reduce outdoor noise.

### 3.4.1 Affected Environment

**Overall Noise and Land Use Compatibility.** The AICUZ program described in DoDI 4165.57, *Air Installations Compatible Use Zones*, provides noise exposure contours around military airfields and recommends compatible land uses for each zone (DoD 2025). Educational facilities are considered compatible with aircraft noise levels up to 75 dB DNL, subject to specific restrictions based on the noise zone. The DoD Unified Facilities Criteria (UFC) further recommend siting new educational facilities only in locations where the exterior DNL does not exceed 65 dB; sites above this threshold are discouraged (UFC 2022). The noise analysis presented in this study is based on the full implementation of the F35 beddown at Tyndall AFB, which includes three operational squadrons. Though only one squadron is currently active, the modeling reflects the reasonably foreseeable upper bound of routine operations to ensure future noise exposure is fully characterized.

As shown in Figure 3.2-2 and Table 3.4-2, the existing school site experiences a DNL of 71.1 dBA, which falls within the 70–75 dB range in which educational facilities are considered compatible only with the implementation of noise reduction measures that reduce indoor noise by 30 dB per the AICUZ program (DoD 2025). The Alternative 1, Cleveland Gate Site, exceeds a DNL of 75 dB, rendering it incompatible with educational land use (DoD 2025). The Alternative 2, Youth Center Site, and Alternative 3, Beacon Beach Site, experience a DNL of less than 65 dB, which is considered compatible for educational facilities.

**Table 3.4-2. Day-Night Sound Levels at All Sites**

Site	Day-Night Sound Level (dBA) Total DNL	Compatible with Educational Land Use (Yes/No)	NLR Required (dBA)
Existing School Site	71.1	Yes <sup>a</sup>	30
Alternative 1 Cleveland Gate Site, NE	73.9	Yes <sup>a</sup>	30
Alternative 1 Cleveland Gate Site, NW	76.2	No <sup>b</sup>	N/A <sup>d</sup>
Alternative 1 Cleveland Gate Site, SE	77.1	No <sup>b</sup>	N/A
Alternative 1 Cleveland Gate Site, SW	73.2	Yes <sup>a</sup>	30
Alternative 2 Youth Center Site	58.6	Yes <sup>c</sup>	None
Alternative 3 Beacon Beach Site	56.5	Yes <sup>c</sup>	None

Source: NoiseMap model outputs — generated July 2025.

Notes: N/A = not applicable.

a. Per DoDI 4165.57, educational facilities are compatible with NLR measures in 70-75 dB requiring a 30 dB reduction indoors (DoD 2025).

b. Per DoDI 4165.57, educational facilities are not recommended in areas with noise levels above 75 dB DNL (DoD 2025).

c. Per DoDI 4165.57, educational facilities are fully compatible without restrictions under 65 dB DNL (DoD 2025).

**Individual Overflights.** Individual overflights produce distinct acoustic events that are typically brief and intermittent. Individual overflights can interfere with communication on the ground and in homes, schools, or other buildings near their flight path. The disruption of routine activities in the home, such as radio or television listening, telephone use, or family conversation, can cause frustration and irritation. The quality of speech communication is also important in classrooms, offices, and industrial settings and can cause fatigue and vocal strain in those who attempt to communicate over the noise. The threshold that aircraft noise begins to interfere with communication is 50 dBA indoors, and speech interference is often described in terms of  $L_{max}$  of 75 dBA outdoors to account for a 25 dBA of noise attenuation provided by buildings such as houses and schools (DNWG 2009).

Table 3.4-3 displays the  $L_{max}$  values for takeoffs and landings of the primary aircraft operating at Tyndall AFB. In general, individual aircraft overflights at altitudes below 5,000 ft above ground level (AGL) generate  $L_{max}$  high enough to cause indoor speech interference without sufficient NLR measures incorporated into the building design.

**Table 3.4-3. L<sub>max</sub> for Individual Overflights**

Altitude (ft)	F-4 During Takeoff (L <sub>max</sub> ) (dBA) <sup>a</sup>	F-16 During Takeoff (L <sub>max</sub> ) (dBA) <sup>a</sup>	F-18 During Takeoff (L <sub>max</sub> ) (dBA) <sup>a</sup>	F-22 During Takeoff (L <sub>max</sub> ) (dBA) <sup>a</sup>	F-35 During Takeoff (L <sub>max</sub> ) (dBA) <sup>a,b</sup>	F-35 During Takeoff (L <sub>max</sub> ) (dBA) <sup>a,c</sup>	F-4 During Approach (L <sub>max</sub> ) (dBA) <sup>a</sup>	F-16 During Approach (L <sub>max</sub> ) (dBA) <sup>a</sup>	F-18 During Approach (L <sub>max</sub> ) (dBA) <sup>a</sup>	F-22 During Approach (L <sub>max</sub> ) (dBA) <sup>a</sup>	F-35 During Approach (L <sub>max</sub> ) (dBA) <sup>a</sup>
500	<b>117</b>	<b>109</b>	<b>116</b>	<b>120</b>	<b>130</b>	<b>124</b>	<b>106</b>	<b>96</b>	<b>111</b>	<b>115</b>	<b>105</b>
1,000	<b>110</b>	<b>102</b>	<b>108</b>	<b>112</b>	<b>121</b>	<b>115</b>	<b>99</b>	<b>89</b>	<b>104</b>	<b>109</b>	<b>99</b>
2,000	<b>101</b>	<b>94</b>	<b>100</b>	<b>105</b>	<b>111</b>	<b>106</b>	<b>91</b>	<b>81</b>	<b>96</b>	<b>103</b>	<b>91</b>
5,000	<b>89</b>	<b>82</b>	<b>87</b>	<b>93</b>	N/A	<b>94</b>	<b>79</b>	70	<b>84</b>	<b>94</b>	<b>80</b>
10,000	<b>77</b>	71	<b>77</b>	<b>83</b>	N/A	<b>83</b>	69	60	73	<b>85</b>	71
20,000	63	59	64	71	N/A	72	56	49	60	74	60

Source: DAF 2018.

Notes: N/A = not applicable.

a. Overflights that exceed 75 dBA L<sub>max</sub> (bolded values) could interfere with speech.

b. Afterburner power.

c. Variable power.

The existing school is approximately 1,200 ft from the F-35 flight track that contributes the most noise. When accounting for the altitude of the aircraft and the distance from the flight track, the existing school site equates to 1,300 ft to 2,000 ft from the aircraft and is exposed to L<sub>max</sub> greater than 111 dBA; therefore, speech interference in the classroom is highly likely. The existing school is exposed to as many as 29 events exceeding 75 dBA, with cumulative durations of 8.2 minutes during the school day (Table 3.4-4). Though the number of events above the L<sub>max</sub> (NAL<sub>max</sub>) and time above a L<sub>max</sub> threshold (TAL<sub>max</sub>) are indicators of the level of effects at the site, they are neither land use planning nor regulatory requirements.

As shown in Figure 3.4-1, a portion of the Alternative 1, Cleveland Gate Site, lies directly under the flight track. The existing 2LC4 flight track directly overflies the northwest portion of the Alternative 1 site, where aircraft operate at altitudes ranging from 500 ft to 1,600 ft AGL. According to data provided in Table 3.4-3, at altitudes as low as 500 ft, L<sub>max</sub> range from 96 to 130 dBA, substantially exceeding the 75 dBA threshold associated with speech interference. Even at the higher operating altitudes considered, L<sub>max</sub> for most aircraft remains elevated (approximately 81–111 dBA), substantially exceeding the 75 dBA threshold for speech interference. Consequently, L<sub>max</sub> at the site exceed 75 dBA and have the potential to interfere with speech both indoors and outdoors. Noise exposure varies across the site's quadrants during school hours, with the northeast and northwest areas experiencing 39 and 38 events above 75 dBA lasting 9.3 and 8.6 minutes, respectively, the southwest area having 38 events lasting 14.7 minutes, and the southeast area experiencing the highest exposure with 84 events totaling 314.9 minutes above 75 dBA (Table 3.4-4). Continuous noise from engine run-up pads near the southeastern quadrant elevates noise further, with modeled DNL reaching 77.1 dBA (Table 3.4-5).

The Alternative 2, Youth Center Site, is approximately 4 miles from the airfield and 12,000 ft from the F-35 flight track that contributes the most noise. The site experiences 19 events exceeding 75 dBA, with cumulative durations of 3.1 minutes during school hours (Table 3.4-4).

The Alternative 3, Beacon Beach Site, is approximately 5 miles from the airfield and 15,000 ft from F-35 flight track that contributes the most noise. The site experiences 11 events exceeding 75 dBA, with cumulative durations of 1.7 minutes during school hours (Table 3.4-4).

**Table 3.4-4. Number of Events and Time above 75 and 80 dBA at All Sites**

Site	Number of Events	Number of Events	TAL <sub>max</sub> (minutes)	TAL <sub>max</sub> (minutes)
	above (NAL <sub>max</sub> ) 75 dBA <sup>a</sup>	above (NAL <sub>max</sub> ) 80 dBA <sup>b</sup>	75 dBA <sup>a</sup>	80 dBA <sup>b</sup>
Existing School Site	29	27	8.2	5.6
Alternative 1 Cleveland Gate Site, NE	39	27	9.3	6.6
Alternative 1 Cleveland Gate Site, NW	38	27	8.6	6.1
Alternative 1 Cleveland Gate Site, SE	84	53	314.9	160.0
Alternative 1 Cleveland Gate Site, SW	38	26	14.7	9.8
Alternative 2 Youth Center Site	19	11	3.1	1.3
Alternative 3 Beacon Beach Site	11	11	1.7	1.4

Source: NoiseMap model outputs — generated July 2025.

Notes: NE = northeast; NW = northwest; SE = southeast; SW = southwest.

a. Threshold for speech interference with a noise reduction level of 25 dBA.

b. Threshold for speech interference with a noise reduction level of 30 dBA.

## 3.4.2 Environmental Consequences

### 3.4.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short-term, less-than-significant adverse effects and long-term, significant-but-mitigable adverse noise effects would be expected. Short-term effects would result from temporary construction activities, while long-term effects would stem from selecting a site exposed to aircraft noise that would exceed levels for an educational facility per AICUZ guidelines.

Without mitigation, the predicted noise environment at this location exceeds 75 dB DNL, rendering it incompatible with educational land use. With the lateral extension of Runway 14R flight tracks and the use of NLR materials, Alternative 1 would result in significant but mitigable adverse effects. Realigning the primary flight track over the school reduces the DNL to below 75 dB in the northern portion, meeting basic compatibility thresholds. Despite enhanced building envelope treatments, such as upgraded façade insulation, mechanical ventilation noise control, and optimized building orientation, however, individual aircraft overflights would still produce indoor L<sub>max</sub> levels above 50 dBA, causing occasional speech interference. Implementing these building upgrades would increase school construction cost by 25 to 40 percent over a school without those design measures and would require substantial long-term maintenance (Plank 2025e, personal communication).

**Construction.** Short-term, less-than-significant noise impacts would be expected from C&D which will involve heavy equipment that typically produces approximately 80–90 dBA at 50 ft (USEPA 1971; FHWA 2006). Because work is temporary, located within the existing operational noise environment of Tyndall AFB, and of limited duration, effects are expected to be less than significant. Standard BMPs would be implemented to minimize disturbance, including restricting routine heavy-equipment use to normal weekday hours near sensitive areas, maintaining mufflers and noise-control devices, and ensuring personnel use appropriate hearing protection and follow occupational safety requirements. Construction activity would not violate

any federal, state, or local noise ordinance and would not produce sound harmful to construction workers wearing hearing protection equipment.

**Operations.** Long-term, significant-but-mitigable adverse effects would be expected because the Cleveland Gate Site lies partially within the 75–80 dB DNL noise contour (Figure 3.4-1 and Table 3.4-5). Full implementation of the F-35 beddown would produce a DNL of 76.2 dBA at the site, exceeding recommended thresholds for educational land use compatibility. Primary F-35 departure tracks are directly above the northwestern boundary and are the primary source of aircraft noise exposure. Modeled DNL values exceed 75 dBA DNL without mitigation, surpassing AICUZ DoDI 4165.57 thresholds for educational land use compatibility. Continuous noise from engine run-up pads near the southeastern quadrant elevates noise further, with modeled DNL reaching 77.1 dBA (Table 3.4-5). These levels also exceed the 65 dB DNL limit recommended for schools in the UFC and would preclude meeting the Florida Building Code (FBC) interior noise requirement without substantial acoustic upgrades (FBC 2023; UFC 2022).

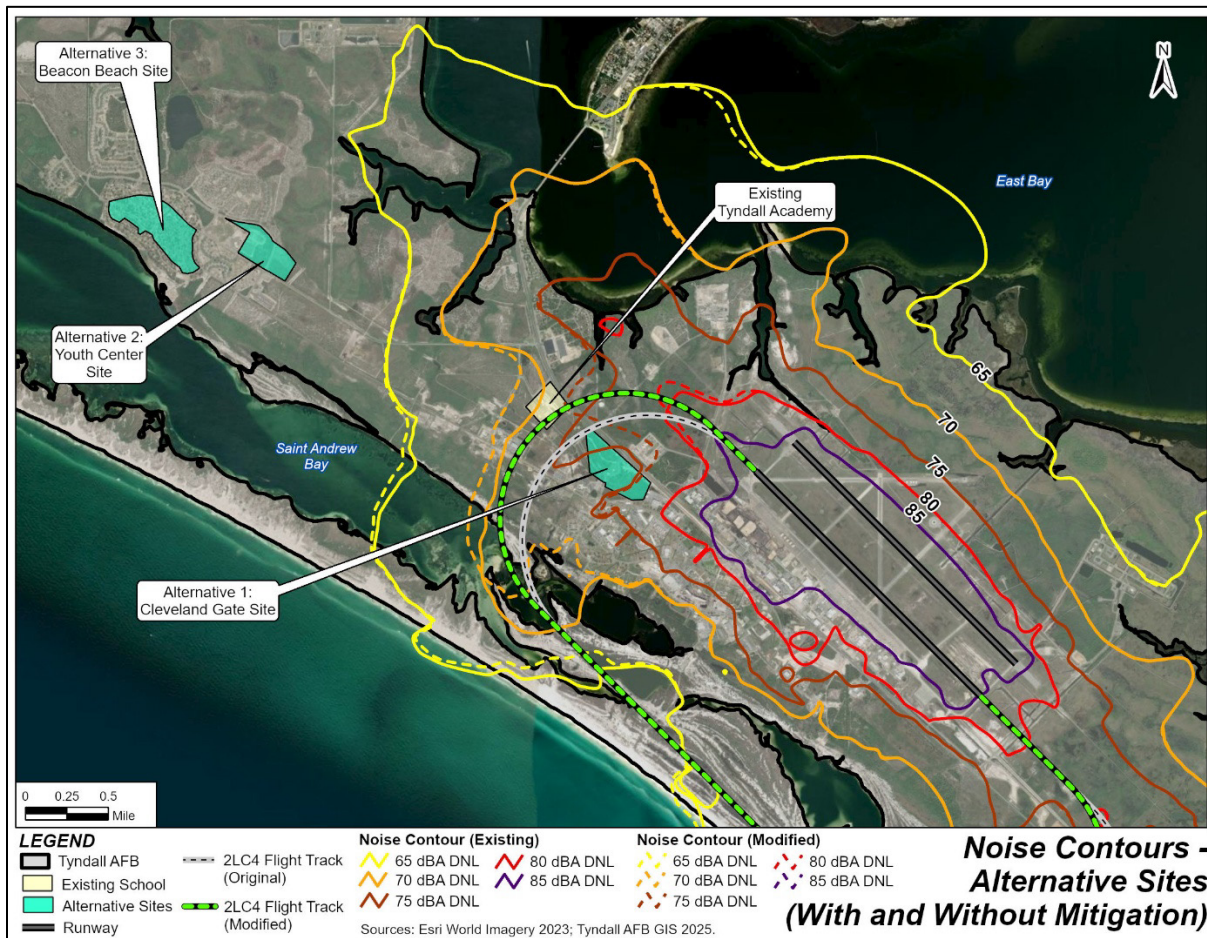


Figure 3.4-1. Noise Contours (Existing) and Noise Contours (Modified) with Mitigation.

**Table 3.4-5. Day-Night Sound Levels at Alternative 1 Cleveland Gate Site with Mitigation**

Location on Alternative 1 Site	Flight Operations Day-Night Sound Level (dBA)	Ground Operations Day-Night Sound Level (dBA)	Total Day-Night Sound Level (dBA)	Compatible with Educational Land Use (Yes/No)	NLR Required (dBA)
Alternative 1 NE	70.1	66.2	71.6	Yes <sup>a</sup>	30
Alternative 1 NW	69.9	61.3	70.4	Yes <sup>a</sup>	30
Alternative 1 SE	69.4	76.3	77.1	No <sup>b</sup>	N/A
Alternative 1 SW	67.9	69.6	71.8	Yes <sup>a</sup>	30

Source: NoiseMap model outputs — generated July 2025

Notes: N/A = not applicable; NE = northeast; NW = northwest; SE = southeast; SW = southwest.

a Per DoDI 4165.57, educational facilities are compatible with NLR measures in 70-75 dB requiring a 30 dB reduction indoors (DoD 2025).

b Per DoDI 4165.57, educational facilities are not recommended in areas with noise levels above 75 dB DNL (DoD 2025).

c Mitigation measures include extending the flight track lateral offset by 0.5 nautical miles and raising the minimum altitude to 1,600 ft AGL near the Alternative 1 site.

d Per DoDI 4165.57, educational facilities are fully compatible without restrictions under 65 dB DNL (DoD 2025).

To reduce noise impacts, potential mitigation measures were modeled using the DoD’s official modeling tool, NoiseMap, which included extending the lateral offset of flight tracks from the end of the adjacent runway by 0.5 nautical miles (NM). These modifications lowered the DNL at the northwestern corner of the site to 70.4 dBA (Table 3.4-5). Despite this, the site experiences the highest noise exposure due to proximity to primary flight paths and frequent low-altitude overflights.

Because of the proximity of the Alternative 1 site to existing flight tracks, individual overflights for all the primary aircraft at Tyndall AFB would be appreciably greater than 75 dBA (Table 3.4-3). Even with adequate NLR measures incorporated into the building design, indoor speech disturbances would likely occur regularly from some aircraft overflights. An appreciable portion of school time is spent outdoors, for activities such as recess, physical education, athletics, safety drills, and transitions, during which noise mitigation is not feasible. While the informal activities tolerate background noise, structured activities requiring clear communication, such as sports practices and safety drills, can be disrupted by loud aircraft noise, potentially hindering instruction during critical moments. The estimated number of events of speech interference with mitigation are listed in Table 3.4-6. The southeast portion of the Alternative 1 site significantly exceeds recommended noise thresholds, with approximately 84 daily events above 75 dBA and 53 above 80 dBA, totaling 314 and 160 minutes, respectively, indicating substantial potential for speech interference. Noise on the site is dominated by prolonged engine run-ups and static operations, leading to sustained elevated levels. Even with mitigation, the frequency and duration of the events remain largely unchanged, limiting noise reduction effectiveness. In contrast, the northeast, northwest, and southwest portions of the site experience slightly lesser impacts, with 38–39 events above 75 dBA and 26–27 above 80 dBA daily, lasting 8.8–14.9 minutes and 6.4–10.0 minutes, respectively, suggesting occasional classroom disruptions during critical activities. Although  $NAL_{max}$  and  $TAL_{max}$  are not regulatory criteria, they offer valuable insight into noise severity and emphasize the need for effective mitigation. Noise contours are sensitive to environmental changes and, therefore, do not represent fixed or absolute boundaries; consequently, the site could occasionally fall within a higher noise contour. Therefore, there would be limits to the noise reduction effectiveness. Mitigation measures are listed in Section 3.4.2.6.

**Table 3.4-6. Number of Events and Time above 75 dBA and 80 dBA at Alternative 1 Cleveland Gate Site with Mitigation<sup>a</sup>**

Site	Number of Events above (NAL <sub>max</sub> ) 75 dBA <sup>b</sup>	Number of Events above (NAL <sub>max</sub> ) 80 dBA <sup>c</sup>	TAL <sub>max</sub> (minutes) 75 dBA <sup>b</sup>	TAL <sub>max</sub> (minutes) 80 dBA <sup>c</sup>
Alternative 1 NE	39	27	9.5	6.9
Alternative 1 NW	38	27	8.8	6.4
Alternative 1 SE	84	53	315.2	160.2
Alternative 1 SW	38	26	14.9	10.0

Source: NoiseMap model outputs — generated July 2025.

Notes: NE = northeast; NW = northwest; SE = southeast; SW = southwest.

a. Mitigation measures include extending the flight track lateral offset by 0.5 NM and raising the minimum altitude to 1,600 ft AGL near the Alternative 1 site.

b. Threshold for speech interference with a noise reduction level of 25 dBA.

c. Threshold for speech interference with a noise reduction level of 30 dBA.

### 3.4.2.2 Proposed Action Alternative 2: Youth Center Site

Short- and long-term, less-than-significant adverse noise effects would be expected.

**Construction.** Short-term effects would be due to temporary construction activities at the site. Other than location, the nature and level of construction noise and BMPs would be the same as Alternative 1.

**Operations.** Long-term, less-than-significant adverse noise effects would be from selecting a site exposed to a noticeable amount of aircraft noise. The Alternative 2 site would be outside the 65 dB DNL noise contour, with a DNL of 58.6 dBA and compatible with educational land use requirements per AICUZ, UFC, and FBC (Table 3.4-2 and Figure 3.4-1). Although the Alternative 2 site would be in a compatible noise contour, speech interference from overflights would be possible at the Alternative 2 site. The estimated number of events of speech interference are listed in Table 3.4-4.

### 3.4.2.3 Proposed Action Alternative 3: Beacon Beach Site

Short- and long-term, less-than-significant adverse noise effects would be expected.

**Construction.** Short-term effects would be due to temporary construction activities at the site. Other than location, the nature and level of construction noise and BMPs would be the same as Alternative 1.

**Operations.** Long-term, less-than-significant adverse noise effects would be from selecting a site exposed to a noticeable amount of aircraft noise. The Alternative 3 site would be outside the 65 dB DNL noise contour, with a DNL of 56.5 dBA and compatible with educational land use requirements per AICUZ, UFC, and FBC (Table 3.4-2 and Figure 3.4-1). Although the Alternative 3 site would be in a compatible noise contour, speech interference from overflights at the Alternative 3 site would be possible. The estimated number of events of speech interference are listed in Table 3.4-4.

### 3.4.2.4 No Action Alternative

No effects would be expected. Under the No-Action Alternative, the airfield noise zones would remain as modeled for the full F-35 beddown—that is, existing conditions in this analysis assume the increase in aircraft operations associated with full implementation of the F-35

beddown. The Proposed Action would not be implemented, and the three Action Alternative sites would remain in their current state.

### 3.4.2.5 Combined Effects with Other Actions

During construction, noise from the Proposed Action, in combination with other projects that are temporally and geographically adjacent, would contribute short-term and less-than-significant effects and would be similar in nature to the existing noise environment. The combined effects of operation would be long-term, significant-but-mitigable adverse effects for Alternative 1, Cleveland Gate Site, and less than significant at Alternatives 2 and 3.

### 3.4.2.6 Mitigation

The following mitigation measures have been identified for Alternative 1 for noise. The Alternative 1 noise mitigation construction measures would increase BDS's school construction cost by 25–40 percent. The noise contours would still shift with environmental changes and, therefore, even with the mitigation measures, the 75 dB DNL noise contour would encompass the school site at times. Additionally, the mitigation measures would not reduce noise for outdoor educational and recreational activities. The southeastern portion of the Cleveland Gate Site is within the 75–80 dB DNL noise contour, which the DAF does not consider compatible with educational land uses as specified in DoDI 4165.57, which states that the program is intended to “discourage noise-sensitive land uses in areas of higher noise exposure” and identifies “educational facilities” as a noise-sensitive use whose compatibility can decline as DNL increases. However, DoDI 4165.57 also emphasizes that it “does not impose any requirements” and “does not prescribe any specific course of action” for land use decisions and that the compatibility recommendations “do not constitute a federal determination” of acceptability. Therefore, while the Cleveland Gate Site lies partially within an area that the DAF considers not normally recommended for noise-sensitive uses under DoDI 4165.57, mitigation would preclude construction of educational facilities in those portions of the site.

- Except during flight-safety operations, all aircraft based at Tyndall AFB making westbound or southbound departures from Runway 14R shall maintain runway heading and shall not initiate any turn toward the west or south until the aircraft has achieved a lateral offset of at least 1.0 NM from the runway end; greater offsets (i.e., more than 1.0 NM) shall be implemented where operationally feasible.
- Except during flight-safety operations, all aircraft based at Tyndall AFB making westbound departures from Runway 14R would climb to an altitude of 1,600 ft AGL as they pass the site.
- These measures would be permanently updated in the local flying rules and base-wide standard operating procedures (SOPs).
- The lease shall designate any portion of the parcel located within 600 ft of the site's southeastern boundary as an exclusion area to be reserved exclusively as greenspace, with no facilities, buildings, classrooms, instructional spaces, or other improvements permitted. The southeastern portion of the Alternative 1 site that is excluded under this provision shall be securely fenced off to prevent inadvertent access by students or staff. In the event that future changes to the mission result in a measurable reduction in noise levels and the area is determined to be suitable for BDS use, the lease could be amended as necessary to reflect the changed circumstances and to permit BDS occupancy or operations—subject to any required approvals and compliance with applicable regulations.

As shown in Figure 3.4-1, these mitigation measures would (1) reduce the overall sound levels to less than 75 dBA DNL throughout most of the site, and (2) restrict the school to construct within that area.

Regardless of whether Alternative 1, 2, or 3 is selected, a qualified architectural-acoustical consultant should be engaged on the building design team to (1) specify and verify building envelope and operational measures to achieve NLR consistent with the DAF land-use planning guidance, and (2) perform site-specific measurements, modeling, and design review to confirm that proposed construction and systems comply with applicable local, state, and federal building code requirements. Implementing necessary building enhancements to mitigate noise exposure, such as improved insulation, specialized glazing, or upgraded heating, ventilation, and air conditioning systems, would result in appreciable additional construction costs and ongoing maintenance expenses.

### **3.5 Soils**

The ROI for soils is generally limited to the construction footprint at the alternative sites and the immediately adjacent areas that could potentially be affected by the Proposed Action. Effects would be considered significant if the Proposed Action resulted in loss of farmland or impacts on unique soil features. In addition, effects would be considered significant if altered topography and stormwater drainage resulted in excessive erosion within the site and adjacent area or excessive entrainment of sediment in stormwater leading to degradation of receiving waters.

#### **3.5.1 Affected Environment**

Tyndall AFB is within the Coastal Meadows (Flatwoods) topographical division of the Gulf Coast region. The terrain is generally flat or gently undulating with elevations averaging from 0 ft above mean sea level (AMSL) to 50 ft AMSL (Tyndall AFB GIS 2025). The elevation for the project areas of the Alternative 1, 2, and 3 sites ranges from 15 ft AMSL to 30 ft AMSL. Surficial geology at Tyndall AFB consists of unconsolidated coastal deposits comprised primarily of sand, gravel, loam, and clay (USGS 2025a; USDA 2025).

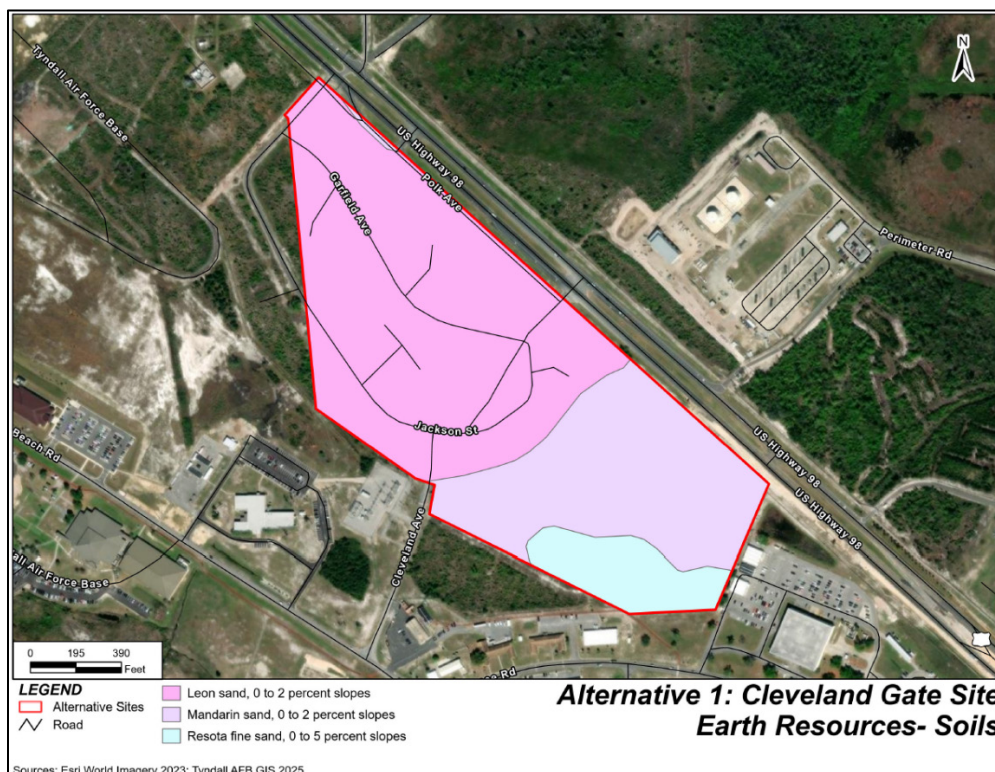
The coastal area of Florida has not been seismically active in recent times, with zero earthquakes recorded since 1900 (USGS 2025b). No faults are identified within or in the vicinity of Tyndall AFB (USGS 2025c).

The dominant soil types at Tyndall AFB were formed from sandy materials. The sandy soils varied from very loose to very dense sands from 5 ft to 27 ft, not unsuitable for foundation construction with preparation (SES 2023). Soil within the Alternative 1, 2, and 3 project areas consists of Kureb Sand, Leon Sand, Mandarin Sand, and Resota Fine Sand, listed in Table 3.5-1 and shown on the three sites in Figure 3.5-1, Figure 3.5-2, and Figure 3.5-3. For the most part, the soils within the project areas have been previously disturbed during base construction activities and are partially covered by existing development (i.e., road, sidewalks, and structures).

**Table 3.5-1. Soils at Alternative 1, 2, and 3 Sites**

Soil Series	Depth to Water Table	Location	Characteristics
Kureb Sand	Below 80 inches	Broad upland areas near the coast	Excessively drained, have a very low available water capacity and rapid permeability, and is not prone to ponding or flooding
Leon Sand	6 to 18 inches	Flatwoods on marine terraces	Very strongly acidic, very deep, poorly drained, have a very low available water capacity, rapid permeability on the surface, high surface runoff, prone to seasonal ponding, and are very susceptible to wind erosion
Mandarin Sand	18 to 42 inches	Flats and rises of marine terraces	Very strongly acidic, very deep, somewhat poorly drained, have a low available water capacity, rapid permeability on the surface, very low surface runoff, are not prone to ponding or flooding, but are very susceptible to wind erosion
Resota Fine Sand	42 to 60 inches	Ridges and knolls of marine terraces	Strongly acidic, very deep, moderately well drained, have a very low available water capacity, very rapid permeability on the surface, negligible surface runoff, are not prone to ponding or flooding, and are very susceptible to wind erosion

Source: 325 FW 2020.



**Figure 3.5-1. Alternative 1: Cleveland Gate Site Soils.**

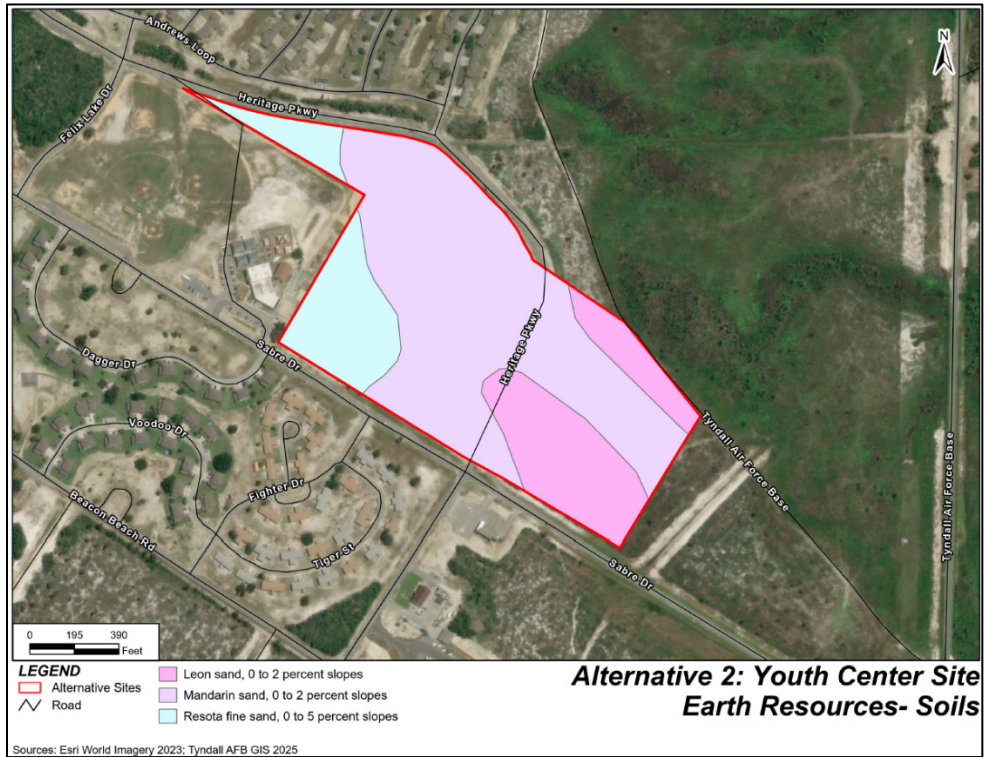


Figure 3.5-2. Alternative 2: Youth Center Site Soils.



Figure 3.5-3. Alternative 3: Beacon Beach Site Soils.

The Kureb Sand, Leon Sand, Mandarin Sand, and Resota Sand are not prime farmland soils (USDA 2025). Under the Farmland Protection Policy Act (7 U.S.C. §§ 4201–4209), federal programs are required to minimize the extent to which farmland is unnecessarily and irreversibly converted to nonagricultural uses. The Farmland Protection Policy Act, however, does not apply to soils on military installations.

There are no oil or gas fields or active mining within Tyndall AFB. There is active sand and gravel mining production within 10 miles of the base (USGS 2025e).

### 3.5.2 Environmental Consequences

#### 3.5.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short-term, less-than-significant adverse effects on soils would be expected from construction activity. Generally, effects could be avoided or minimized if proper construction techniques, erosion control measures, and final site restoration are incorporated into project development.

**Construction.** The soil disturbance from construction under Alternative 1 would cover approximately 52 acres. Most of the soil disturbance would occur in the Leon Sand area on the site (Figure 3.5-1). Leon Sand soils are prone to seasonal ponding and are very susceptible to wind erosion. Soils would be protected from erosion during construction using BMPs (Appendix E) and in accordance with the terms of the State of Florida National Pollutant Discharge Elimination System (NPDES) Generic Permit, also known as the Construction Generic Permit (CGP), issued by FDEP (FDEP 2015). Stormwater runoff from construction activities (e.g., clearing, excavating, grading, and other land-disturbing activities) of 1 acre or more must be permitted under the CGP. The permit also requires listing and describing site-specific controls appropriate for the construction activities, including measures to minimize the amount of soil exposed during construction activity, minimize sediment discharges from the site, minimize soil compaction, and preserve topsoil (FDEP 2015). BDS or its construction contractor would prepare and implement an Erosion and Sediment Control Plan because the Proposed Action would disturb more than 1 acre of land to minimize long-term erosion and sediment production at the site in accordance with the CGP. Implementing the controls and measures required under the CGP would result in soil loss through wind and water erosion being less than significant.

Topsoil would be stripped, segregated, and stabilized as construction begins to preserve existing topsoil in areas not impacted by contamination. During site restoration, topsoil not impacted by contamination would be reused within the project site to reestablish green space.

Exceedances for dieldrin were detected above residential and commercial/ industrial SCTLs from the June 2025 soil sampling event at three locations on the Cleveland Gate Site (Cypress Environmental 2025). Soil samples were collected only from 0.5 ft to 2 ft below ground surface (bgs). Additional sampling was conducted in January 2026 to delineate the extent of contamination and confirm the presence of COCs (Cypress Environmental 2026). At three boring locations, three dieldrin concentrations in the 0.5–2 ft bgs depth interval, and one dieldrin concentration in the 2–4 ft bgs depth interval exceeded the State of Florida leachability criteria of 0.002 milligrams per kilogram (mg/kg). None of the soil samples from the three borings (0–6 ft bgs) were below the dieldrin Residential SCTL of 0.06 mg/kg or the Commercial/Industrial SCTL of 0.3 mg/kg. A formal human health and ecological risk assessment is recommended to guide the need for remedial actions or risk management strategies. In accordance with CERCLA and DAFI 32-1023, *Designing and Constructing Military Construction Projects*, the DAF retains

ownership and responsibility for contaminated sites located on its installations. If excavation takes place, off-site soil might be needed to supplement on-site material. All off-site material would come from an approved facility.

As part of restoration, areas to be revegetated would be de-compacted as necessary; topsoil would be spread; and seed, lime, and fertilizer would be applied as necessary to promote revegetation. Effects on the topsoil resource would be less than significant with proper segregation and preservation during construction and reuse across the project sites to promote revegetation during final site restoration.

During construction, short-term, less-than-significant adverse effects on topography would be expected from implementing Alternative 1. Topsoil stripping and grading of each site would create temporary minor changes to the site's topographic contours, which could temporarily affect site drainage, as stormwater collection within excavated areas would likely increase. Implementing CGP requirements, however, would minimize soil loss and sediment discharges from the site.

**Operations.** No effects would be expected. During final restoration, excavated areas would be backfilled to grade and the site topography would be restored to allow drainage of stormwater to the Tyndall AFB stormwater system, consistent with existing conditions. As a result, no permanent effects on site topography would be expected.

### 3.5.2.2 Proposed Action Alternative 2: Youth Center Site

Short-term, less-than-significant adverse effects on soils would be expected, like those described for Alternative 1. Effects would be similar to Alternative 1 effects because soils would be protected from erosion during construction using BMPs and in accordance with the terms of the CGP. Topsoil also would be stripped, segregated, and stabilized to preserve existing topsoil and would be reused within the project site. Any excavated areas would be backfilled to grade and site topography would be restored to allow drainage of stormwater consistent with existing conditions. The effects would be different than for Alternative 1 because most of the soil disturbance would occur in the Mandarin Sand area on the site. Mandarin Sand soils are not prone to ponding or flooding but are very susceptible to wind erosion. Additionally, no known contamination is present on the Alternative 2 site, so remedial action would not be required.

### 3.5.2.3 Proposed Action Alternative 3: Beacon Beach Site

Short-term, less-than-significant adverse effects on soils would be expected, like those described for Alternative 1. Effects would be similar to Alternative 1 because soils would be protected from erosion during construction using BMPs and in accordance with the terms of the CGP. Topsoil also would be stripped, segregated, and stabilized to preserve existing topsoil and would be reused within the project site. Any excavated areas would be backfilled to grade and site topography would be restored to allow drainage of stormwater consistent with existing conditions. The effects would be different than for Alternative 1 because most of the soil disturbance would occur in the Kureb Sand area on the site. Kureb Sand soils are not prone to ponding or flooding. Additionally, it is possible asbestos-containing materials (ACM) and lead-based paint (LBP) are present from previous housing on the site; however, sampling has not been conducted to confirm contamination. The DAF would survey foundations and rubble piles for hazardous materials before demolition or treat them as contaminated (see Section 3.9.2.1).

### **3.5.2.4 No Action Alternative**

No effects on soil resources would result under the No Action Alternative. The Proposed Action would not be implemented, and the three Action Alternative sites would remain in their current state.

### **3.5.2.5 Combined Effects with Other Actions**

No combined effects on soils would be expected from implementing the Proposed Action. Soil and surface runoff effects would be limited to the individual construction site, and BMPs would be employed to control erosion and surface runoff during stormwater events.

### **3.5.2.6 Mitigation**

No mitigation measures would be required. BMPs are provided in Appendix E.

## **3.6 Water Resources**

The ROI for water resources includes the surface waters, groundwater, and stormwater of the three alternative sites and connected water resources, and coastal zone resources of the Saint Andrew Bay watershed. Effects on water resources would be considered significant if the proposed activities would degrade water quality below that required for a designated use; damage or threaten hydrology; violate water resources laws, regulations, or permit conditions; or not be consistent to the maximum extent practicable with the enforceable policies of the Florida Coastal Management Program (FCMP).

### **3.6.1 Affected Environment**

#### **3.6.1.1 Surface Waters**

None of the three alternative sites have surface waters (USGS 2024a, 2024b). Nearby water resources (floodplains and wetlands) are discussed below.

#### **3.6.1.2 Groundwater**

The surficial aquifer at Tyndall AFB ranges in thickness from approximately 50 ft to 100 ft bgs and does not serve as a potable water source for the base (Tyndall AFB 2020a). The Florida Aquifer is approximately 250 – 350 ft below the surface.

In June and July 2025, groundwater samples were collected from temporary monitoring wells on the Cleveland Gate Site. Groundwater samples were tested for COCs, including VOCs, SVOCs, pesticides, herbicides, petroleum hydrocarbons, and Resource Conservation and Recovery Act (RCRA) metals. The samples indicated that contaminants are present in groundwater at concentrations greater than the Florida commercial/industrial and residential direct exposure level. Further detail is provided in Section 3.9.1.1.

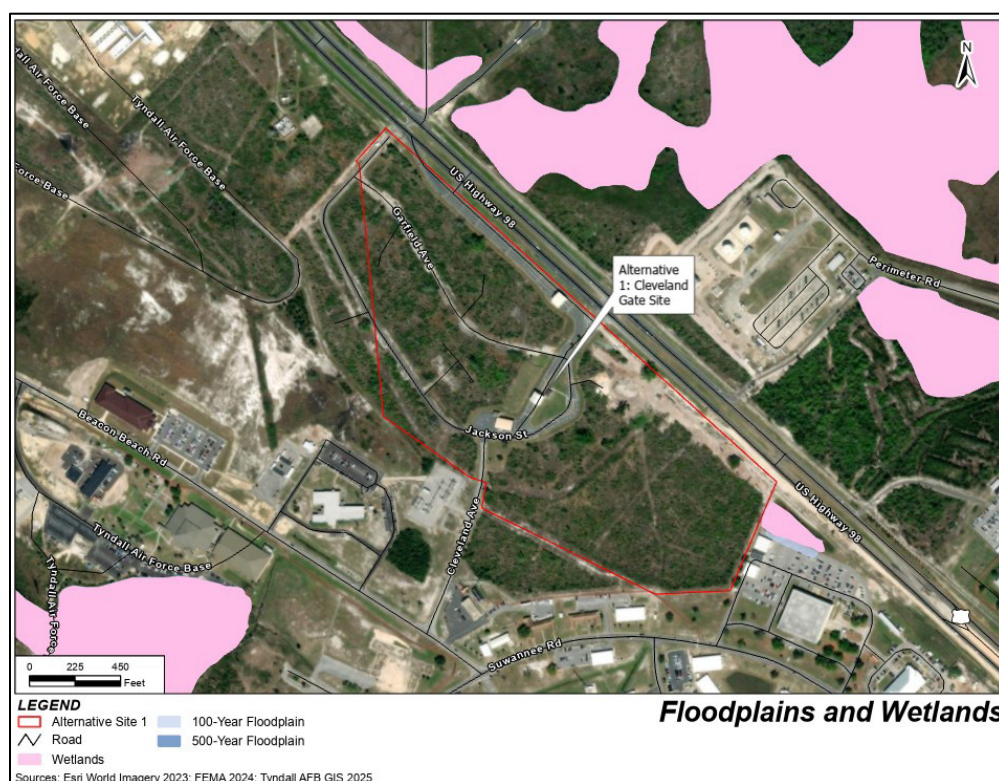
#### **3.6.1.3 Stormwater**

Tyndall AFB's stormwater system consists primarily of open ditches in undeveloped areas and underground piping in developed areas (Tyndall AFB 2020a). The base's stormwater pollution prevention plan guides stormwater management on the base. Stormwater is managed using BMPs to reduce or eliminate pollutant (e.g., sediment, nutrients, and so forth) runoff.

### 3.6.1.4 Floodplains and Wetlands

No floodplains or wetlands are indicated to be on any of the three alternative sites (see Figures 3.6-1, 3.6-2, and 3.6-3) (FEMA 2024; Tyndall AFB GIS 2025).<sup>4</sup> Some areas of potential wetlands, however, are near each of the sites, as described below:

- Alternative 1, Cleveland Gate Site: An area of freshwater forested/shrub wetland habitat is north of the site on the opposite side of U.S. Hwy 98 (USFWS 2025a).
- Alternative 2, Youth Center Site: An area of freshwater forested/shrub wetland habitat is north of the site on the opposite side of a vehicle trail at the eastern extent of the northern boundary of the site (Road 31B).
- Alternative 3, Beacon Beach Site: An area of freshwater forested/shrub wetland habitat is about 200 ft west of the site and estuarine and marine wetland habitats are about 350 ft south of the site along the shore of Saint Andrew Bay.



**Figure 3.6-1. Alternative 1: Cleveland Gate Site Floodplains and Wetlands.**

<sup>4</sup> Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (USEPA 2025c).



Figure 3.6-2. Alternative 2: Youth Center Site Floodplains and Wetlands.

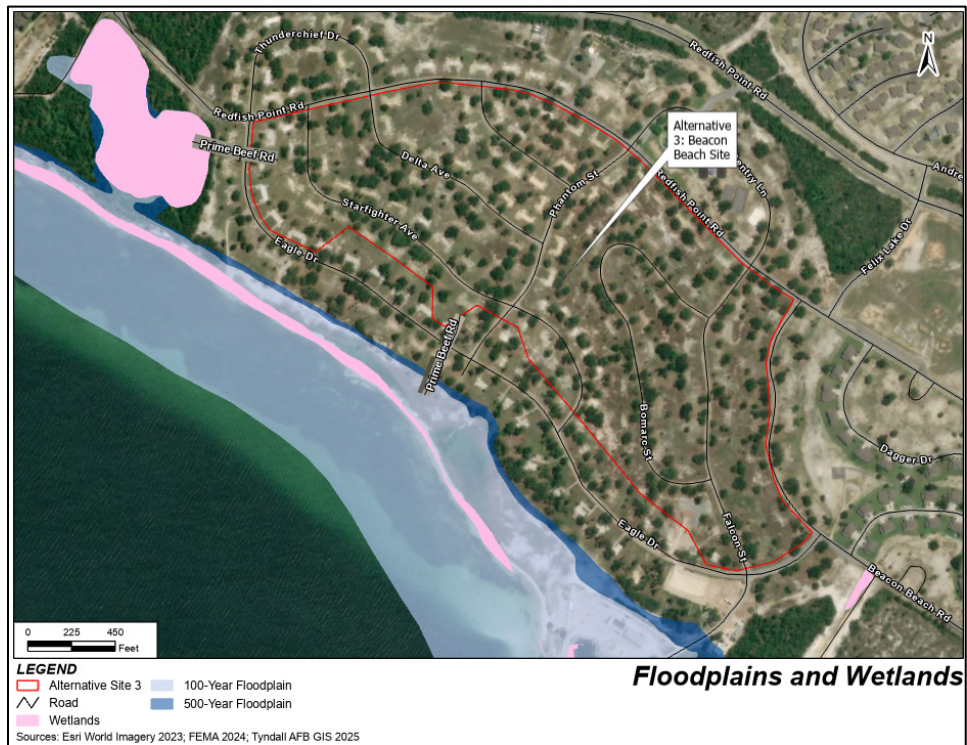


Figure 3.6-3. Alternative 3: Beacon Beach Site Floodplains and Wetlands.

### 3.6.1.5 Coastal Zone Management

The Coastal Zone Management Act of 1972, as amended (16 U.S.C. Part 1451 *et seq.*) stipulates that federal projects that affect land uses, water uses, or coastal resources of a state's coastal zone must be consistent, to the maximum extent practicable, with the enforceable policies of that state's federally approved coastal zone management plan.

Under the FCMP, federal consistency requirements apply to proposed federal actions that would occur in any of Florida's 35 coastal counties or adjoining territorial waters. Bay County is one of Florida's coastal counties where federal consistency requirements apply. Actions occurring at Tyndall AFB that have the potential to affect coastal zone resources outside the installation's boundaries must be consistent, to the maximum extent practicable, with the enforceable policies of the FCMP.

### 3.6.2 Environmental Consequences

#### 3.6.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short-term, negligible adverse effects on groundwater and no effects on surface waters, stormwater, floodplains, wetlands, or the Florida coastal zone would be expected.

**Construction.** Construction would expose soil to erosion in stormwater runoff. Sediment runoff in stormwater from the construction site, however, would not be expected to affect surface waters because the soil on the site is sand, the surrounding land is flat, and the nearest surface waters and wetlands are on the opposite side of U.S. Hwy 98 and south of the site along Saint Andrew Bay. Stormwater would be expected to percolate into the soil or encounter either porous soils or roads and development, preventing the runoff from reaching nearby surface waters.

Nevertheless, soils would be protected from erosion and nearby surface waters would be protected from sediment-laden stormwater runoff during construction through the use of BMPs (Appendix E) in accordance with the terms of the State of Florida NPDES CGP issued by FDEP (FDEP 2015). Stormwater runoff from construction activities on 1 acre or more must be permitted under the CGP. The permit also requires listing and describing site-specific controls appropriate for the construction activities, including measures to minimize sediment discharges from the site (FDEP 2015). BDS or its construction contractor would prepare and implement an Erosion and Sediment Control Plan because the Proposed Action would disturb more than 1 acre of land.

Debris from former structures on the site could harbor hazardous constituents. Special hazards would be removed, stored, and disposed of in accordance with base plans and applicable federal, state, and local regulations. See Section 3.9 for further information. If contamination requiring removal is encountered during construction, the DAF must address it as part of the project scope, in compliance with DoD Manual 4715.20, *Defense Environmental Restoration Program (DERP) Management*, and DAF BMPs and relevant regulatory authorities (see Section 3.9.2.1).

Minor leaks and spills of petroleum, oil, and lubricants from construction equipment could infiltrate to groundwater. Construction operators would have spill kits and clean up spills immediately in accordance with the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (effective February 2015) (FDEP 2015). Effects on groundwater quality would be negligible.

Neither floodplains north of the site nor the wetlands associated with them across U.S. Hwy 98 and south of the site near Saint Andrew Bay would be affected by the construction. Alternative 1 site sits at an elevation of about 30 ft AMSL. A design flood elevation (DFE) of 19 ft AMSL was established for the Gulf side of Tyndall AFB after Hurricane Michael (DAF 2019). The DFE is one at which constructed features should be to minimize flooding potential. If wetlands are suspected of being on the project site, BDS would conduct a wetland survey and request a jurisdictional determination from the U.S. Army Corps of Engineers (USACE).

After construction, undeveloped portions of the site would be landscaped and incorporated into the site's stormwater management infrastructure.

The DAF has determined that Alternative 1 would be consistent, to the maximum extent practicable, with the enforceable policies of the FCMP. Potential effects on Florida Coastal Zone resources, therefore, would not be significant. Appendix H provides a summary of the Proposed Action's applicability to or consistency with each of the Florida statutes that constitute the FCMP. In an email dated June 4, 2025, the Florida State Clearinghouse (FSC) noted that the state has no objections to the Proposed Action and, therefore, the Proposed Action is consistent with the FCMP. A copy of the email is included in Appendix C.

**Operations.** No effects on water resources or the Florida coastal zone would be expected from operations. Stormwater runoff would be managed in accordance with the Tyndall AFB stormwater pollution prevention plan to prevent adverse effects on surrounding floodplains and wetlands. Groundwater quality would not be affected because Tyndall AFB would minimize the use of pesticides on school grounds in accordance with its Integrated Pest Management Plan and Florida State Board of Education Administrative Rules regarding policies and procedures for pest management programs. Operations under Alternative 1 would not affect nearby water resources.

### **3.6.2.2 Proposed Action Alternative 2: Youth Center Site**

No adverse effects on water resources would be expected from implementing Alternative 2. As with Alternative 1, construction BMPs would be used to minimize the effects of any spills from construction equipment on surface waters and groundwater and to ensure that no sediment-laden stormwater from the construction site reached surface waters, including floodplains and wetlands. No effects on floodplains would be expected. The Alternative 2 site sits at an elevation of about 22 ft AMSL, or about 3 ft above the established DFE for the Gulf side of Tyndall AFB. No wetlands are known to exist on the site, but if wetlands are suspected of being on the project site, BDS would conduct a wetland survey and request a jurisdictional determination from USACE.

### **3.6.2.3 Proposed Action Alternative 3: Beacon Beach Site**

No adverse effects on water resources would be expected from implementing Alternative 3. As with the other alternatives, construction BMPs would be used to minimize the effects of any spills from construction equipment on surface waters and groundwater and to ensure that no sediment-laden stormwater from the construction site reached surface waters, including floodplains and wetlands. No effects on floodplains would be expected. Areas of the Alternative 3 site sit at or slightly below the established DFE for the Gulf side of Tyndall AFB (19 ft AMSL). If flood protection was determined to be necessary for a school constructed on the Alternative 3 site, BDS would direct its design contractor to incorporate into site design the required protections to minimize flooding damage from hurricanes and tropical storms in accordance with DAF policies and Florida regulations. No wetlands are known to exist on the

site but if wetlands are suspected of being on the project site, BDS would conduct a wetland survey and request a jurisdictional determination from USACE.

#### **3.6.2.4 No Action Alternative**

No effects on water resources or the Florida coastal zone would result under the No Action Alternative. The Proposed Action would not be implemented, and the three Action Alternative sites would remain in their current state.

#### **3.6.2.5 Combined Effects with Other Actions**

No combined effects on water resources or the Florida coastal zone would be expected. Stormwater from the school construction site would be isolated from that of any other construction projects. Each project would have the potential to negligibly affect groundwater through minor leaks and spills from construction equipment, but no significant adverse effects on groundwater quality would be expected.

#### **3.6.2.6 Mitigation**

No mitigation for water resources would be required. BMPs are provided in Appendix E.

### **3.7 Biological Resources**

The ROI for biological resources is the three sites being considered for the new school and their immediate vicinities. Effects on biological resources would be considered significant if the Proposed Action resulted in substantial permanent conversion or net loss of habitat, long-term loss or impairment of local habitat (species-dependent), loss of populations of species, or unpermitted or unlawful “take” of federally or state-protected species.

#### **3.7.1 Affected Environment**

Biological resources include native, nonnative, and invasive plants and animals; sensitive and protected plant and animal species; and the habitats where plants and wildlife occur.

##### **3.7.1.1 Vegetation**

The three sites being considered for the new school are all previously developed or disturbed, mostly consisting of improved or semi-improved ground with landscape vegetation (AFCEC 2020). The Alternative 1 site is a mixture of developed open space and low-, medium-, and high-intensity developed land (MRLC 2025). Most of the site is tree-covered, except for the commercial gate area. Surrounding areas include similar lands and some woody wetlands.

The Alternative 2 site is a reforestation site on which about 19,500 longleaf pine trees were planted over 27 acres using Arbor Day Foundation and DAF funds. Tyndall AFB began reforestation efforts in 2020 to recover from Hurricane Michael (Tyndall AFB 2020a). Longleaf pine seedlings were planted on damaged sites beginning in 2020, with the intention of reforesting 9,000–10,000 acres. The longleaf pine trees and habitat on the Alternative 2 site are in the early-to-mid-stages of stand development, likely providing habitat for early successional species such as quail, turkey, and songbirds. Surrounding areas include woody wetlands to the north and low- and medium-intensity developed land to the south.

The Alternative 3 site is low intensity developed land mixed with areas of developed open space. Surrounding areas include medium intensity developed land, with areas of evergreen woods and woody wetlands. Barren land and beach are to the south along the shore of Saint Andrew Bay.

### 3.7.1.2 Wildlife

The alternative sites are developed or previously disturbed and provide marginal habitat for common wildlife species. Common species of birds, mammals, reptiles, and amphibians would be expected to use the site.

### 3.7.1.3 Invasive Species

Tyndall AFB identifies, controls, and eradicates invasive non-native plant species in compliance with EO 13112, *Invasive Species*; the Sikes Act; and the ESA (Tyndall AFB 2020a). Invasive species on the base are managed in accordance with the *Nuisance Species Component Plan* of the Tyndall AFB Integrated Natural Resources Management Plan (Tyndall AFB 2020a).

### 3.7.1.4 Protected Species

USFWS lists 10 federally listed species as having the potential to occur on the alternative sites (USFWS 2025b). Tyndall AFB has documented as occurring on the base two federally threatened plant species, three federally threatened and federally proposed bird species, one federally threatened and two federally endangered mammal species, three federally threatened and two federally endangered reptile species, and the bald eagle (*Haliaeetus leucocephalus*), which is protected under the Bald and Golden Eagle Act but not the ESA (Tyndall AFB 2020a). It has documented federally protected shoreline and marine species on the base.

In cooperation with the USFWS, Tyndall AFB strives to protect, recover, and manage federally protected species to provide maximum mission flexibility while still ensuring regulatory compliance. While it is not a DAF mandate, the Department encourages biodiversity management to include the conservation of state-listed and other rare species when practicable and when protection is not in direct conflict with the military mission. The conservation of state-listed species and other rare but unlisted species is encouraged; protection of these species could help decrease the likelihood of their becoming listed under the ESA. Protected species are generally found on barrier islands, in upland forests, or in wetlands where interactions with the military mission are minimal. State-listed species also are known to occur on the base. The ROI has no federally designated critical habitat (USFWS 2025b). Appendix I provides the USFWS list of federally and state-listed species with the potential to occur in the ROI, and Table 3.7-1 lists the species the base has documented as occurring on the base and that USFWS considers to potentially occur on the alternative sites. Migratory birds are federally protected under the Migratory Bird Treaty Act.

**Table 3.7-1. Federal Species Documented to Occur on Tyndall AFB**

Common Name	Scientific Name	Federal Status
American alligator	<i>Alligator mississippiensis</i>	T (S/A)
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA
Choctawhatchee beach mouse	<i>Peromyscus polionotus allophrys</i>	E
Godfrey's butterwort	<i>Pinguicula ionantha</i>	T
Gopher tortoise <sup>a</sup>	<i>Gopherus polyphemus</i>	S (former candidate species)
Saint Andrew beach mouse	<i>Peromyscus polionotus peninsularis</i>	E
Telephus spurge	<i>Euphorbia telephioides</i>	T

Notes: BGEPA = protected under the Bald and Golden Eagle Protection Act; E = endangered; S = secure; S/A = protected because of similarity of appearance with another species that is listed as endangered; T = threatened.

<sup>a</sup> Eastern distinct population segment.

The base has survey, monitoring, and management programs for most of the federal protected species that occur on the base. Details on management activities are provided in the *Threatened and Endangered Species Component Plan* of the base Integrated Natural Resources Management Plan (Tyndall AFB 2020a). The habitats of the three alternative sites are marginally suitable for supporting protected species that occur on the base. Gopher tortoise burrows have been found in numerous locations and bald eagle nests have been active at the base, including one 0.4 mile south of Alternative 1 site and another about 1.1 miles north of the Alternative 2 site (Tyndall AFB GIS 2025). The base does not indicate occurrences of other federally listed species on or near the alternative sites, but they could harbor other species known to occur on the base. Telephus spurge, for instance, thrives in sandy soils with little moisture, like soils found in pine flatwoods (FWC 2024). It could occur on the Alternative 2 site. Similarly, typical habitat for Godfrey's butterwort includes ditches and depressions in grassy pine flatwoods and grassy savannas and it often occurs in shallow standing water (Tyndall AFB 2020a).

In response to a coordination letter that Tyndall AFB sent to USFWS requesting input regarding resources of concern to the agency on April 22, 2025, USFWS responded the same day, stating, "The Florida Ecological Services Office has no concerns over listed species for this project." Appendix C provides copies of the Tyndall AFB and USFWS correspondence.

### 3.7.2 Environmental Consequences

#### 3.7.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short-term, negligible adverse effects on flora and fauna would be expected from construction activity, and no effects on federally and state-listed species would be expected.

**Construction.** Alternative 1 would be implemented on a previously disturbed site. During construction, most vegetation would be removed and wildlife would disperse from the site. Undeveloped areas of the site would be landscaped after construction and wildlife would return. Contractor vehicles would be inspected and decontaminated to minimize the introduction and spread of invasive species. Post-construction, the site would be landscaped with native species that, over time, would provide an urban type of habitat suitable for common species.

The Florida Fish and Wildlife Commission requires a gopher tortoise survey if no survey of a site has occurred over the prior 90 days. A gopher tortoise survey would be conducted on the site selected for the school by a qualified biologist in accordance with the Florida Fish and Wildlife Commission's *Gopher Tortoise Permitting Guidelines* (FWC 2023). Any tortoises found would be handled in accordance with the guidelines. A qualified biologist would assess the condition of the selected site and conduct a survey, if deemed necessary, for other protected species with the potential to be found on the site before construction commences.

Tyndall AFB would comply with USFWS bald eagle protective measures for construction activities if an active nest is found sufficiently close to the construction site. USFWS recommends that seasonal restrictions apply for temporary activities such as construction and that a buffer of 660 ft be observed. A federal permit is required if a land use activity is proposed within 660 ft of an eagle nest. If required, a permit would be obtained.

If construction was to occur while migratory birds were nesting, the base would either conduct a nesting bird survey to determine whether protected birds were on the site and avoid them as required or avoid disturbing the site until nesting had ended. If needed, a take permit would be obtained.

**Operations.** No effects on flora, fauna, or federally and state-listed species would be expected from operations (school activities and grounds maintenance).

### **3.7.2.2 Proposed Action Alternative 2: Youth Center Site**

Long-term, less-than-significant adverse effects on flora and fauna and no effects on federally and state-listed species would be expected under Alternative 2. Constructing the school on the Alternative 2 site would eliminate the longleaf pines planted in 2020, which account for about 27 acres of the 9,000–10,000 acres of the base that Tyndall AFB plans to reforest in response to the damage caused by Hurricane Michael. More mature habitat is available in the immediate area, as are other replanted sites on the base, but elimination of the trees on the Alternative 2 site would prevent the site from growing into a mature longleaf stand.

The protective measures for species discussed for Alternative 1 in Section 3.7.2.1 apply equally to those species for Alternative 2, thus ensuring that there would be no adverse effects on them.

### **3.7.2.3 Proposed Action Alternative 3: Beacon Beach Site**

Short-term, negligible adverse effects and no long-term adverse effects on flora and fauna and no effects on federally and state-listed species would be expected under Alternative 3. Construction of the school would remove landscape trees and ground cover from the site. Post-construction, the site would be landscaped with native species that, over time, would provide an urban type of habitat similar to the one that exists on the site.

The protective measures for species discussed for Alternative 1 in Section 3.7.2.1 apply equally to those species for Alternative 3, thus ensuring that there would be no adverse effects on terrestrial protected species. In addition, and as required depending on site design, exterior lighting at the school would comply with applicable measures to minimize adverse effects on marine species, such as nesting sea turtles.

### **3.7.2.4 No Action Alternative**

No effects on biological resources would result under the No Action Alternative. The Proposed Action would not be implemented, and the three Action Alternative sites would remain in their current state.

### **3.7.2.5 Combined Effects with Other Actions**

Short-term, negligible adverse combined effects on flora and fauna would be expected from the base implementing other construction projects (see Table 3.1-2) that would overlap implementation of the Proposed Action temporally and disturb developed habitats like those of the alternative sites. No effects on flora or fauna would be expected from any project once construction has been completed. Compliance with laws and regulations for the protection of federally protected and state-listed species would ensure there would be no adverse effects on them.

### **3.7.2.6 Mitigation**

No mitigation for biological resources would be required regardless of the Proposed Action alternative selected. BMPs are listed in Appendix E.

### 3.8 Cultural Resources

Tyndall AFB and the vicinity of the proposed project sites are the ROI for cultural resources. Effects on cultural resources would be considered significant if the Proposed Action resulted in adverse effects, as defined by the NHPA as when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify it for inclusion in the NRHP. This includes effects on the traditional use of sacred or ceremonial sites or resources by Native American Tribes.

Tyndall AFB also is committed to the protection and repatriation of Native American human remains or cultural items under the Native American Graves Protection and Repatriation Act. Six federally recognized Native American tribes have a historic affiliation with the area encompassed by Tyndall AFB and its vicinity; these tribes are the Miccosukee Tribe of Indians of Florida, Muscogee (Creek) Nation, Poarch Band of Creek Indians, Seminole Nation of Oklahoma, Seminole Tribe of Florida, and Thlopthlocco Tribal Town.

#### 3.8.1 Affected Environment

Cultural resources are the heritage of the natural and built human environment. Cultural resources include prehistoric and historic districts and sites, historic buildings, historic structures, traditional cultural places, and historic objects considered important to a culture, subculture, or community for scientific, traditional, religious, or other purposes. The NHPA establishes a legal framework for protecting cultural resources of national, state, and tribal importance (54 U.S.C. § 300308). The NHPA authorized the creation of the NRHP (36 CFR Part 60), a living record of significant cultural resources, referred to as historic properties, that includes districts, sites, buildings, structures, and objects. Sections 106 and 110 of the NHPA require federal agencies to determine whether any cultural resources listed on or eligible for the NRHP could potentially be affected by the proposed undertaking.

As a federal land manager, Tyndall AFB is required to implement the regulations in Section 106 of the NHPA. To the extent possible, federal undertakings must assess whether the project will adversely affect any historic properties within the area of potential effects (APE). The APE is “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist” (36 CFR § 800.16(d)). Adverse effects on historic properties within the APE must be avoided, minimized, or mitigated in consultation with the SHPO and other consulting parties, as appropriate. The Florida Division of Historical Resources (FDHR) is the SHPO for Florida.

There are three alternative site locations proposed for the current undertaking that compose the APE (see Figure 2.2-1). All site locations have been subject to at least one cultural resource survey within the last 10 years. All surveys were performed to the current standards outlined in the FDHR *Cultural Resource Management Standards and Operational Manual* and are, therefore, considered sufficient coverage for the current proposed project (FDHR 2003). The investigation into these three alternative sites is described in the following sections.

##### 3.8.1.1 SHPO Consultation and Government-to-Government Consultation with Native American Tribes

The 325 CES and 325 FW at Tyndall AFB initiated Section 106 consultation with state and federal agencies, including FDHR, as well as government-to-government consultation with the six federally recognized Native American tribes on the Proposed Action. This outreach occurred

via email in February 2024 and April and May 2025. The February 2024 letter identified the Youth Center Site (Alternative 2) and the Beacon Beach Site (Alternative 3) as possible locations for the future Tyndall Academy. Following this correspondence, Tyndall AFB identified a third alternative site (Alternative 1, Cleveland Gate Site) for the Proposed Action, and, subsequently, submitted an updated letter to all consulting parties in April and May 2025 (Appendix C).

The Muscogee (Creek) Nation and Seminole Tribe of Florida responded to both instances of government-to-government consultation sent by Tyndall AFB in 2024 and 2025. In response to the original email, both tribes stated in separate March 2024 emails that no historic properties would be affected by the proposed undertaking, requesting notification in the event of any inadvertent discoveries. In May 2025, the Seminole Tribe of Florida reiterated their support for the project in response to the second attempt at consultation. The Muscogee (Creek) Nation requested additional project information before moving forward. Tyndall AFB responded to the Muscogee (Creek) Nation request for information without response.

On June 4, 2025, the FSC responded to the second request for government-to-government consultation, stating no objections to the proposed work; however, the FSC requested that ground-disturbing activities cease if any cultural resources were identified during fieldwork. In the event of any inadvertent discoveries, verbal or written authorization from the FDHR would be required to continue project work.

### 3.8.1.2 Cultural Landscapes

The cultural development of the Florida Panhandle/northwestern Florida is complex and the result of approximately 14,000 years of interaction and evolution. The major cultural periods associated with the Florida Panhandle/northwestern Florida include the Archaic Period, Historic Period, Mississippian Period, Paleoindian Period, Protohistoric Period, and Woodland Period. The Archaic, Historic, and Woodland Periods are further divided into sub-periods or local phases based on regionally specific cultural characteristics presence within the archaeological record. Descriptions of each sub-period and local phase are provided in Appendix J, Table J-1. A more comprehensive summary of the prehistory and history of Tyndall AFB is provided in the base's Integrated Cultural Resources Management Plan (ICRMP) (USAF 2023b).

### 3.8.1.3 Previous Investigations

Records obtained in January 2025 from the Tyndall AFB's cultural resource inventory and the Florida Master Site File (FMSF) identified that 33 cultural resource investigations have been conducted within 1.6 kilometers (1.0 mile) of the proposed project areas (Appendix J, Table J-2). These investigations include cultural resource assessments, monitoring reports, historic building surveys and evaluations, and Phase I and II archaeological surveys. Table 3.8-1 lists previous investigations that overlap with the identified APE for the Cleveland Gate, Youth Center, and Beacon Beach sites. Through these previous investigations, the entirety of the APEs associated with each alternative have undergone some form of cultural resource survey.

**Table 3.8-1. Previous Cultural Investigations within the Proposed Action APEs**

Survey Year	FMSF Survey Number	Citation	APE
1979	138	Knudsen and Stoutamire 1979	Alternatives 1–3
1985	1387	Campbell and Prentice 1985	Alternatives 1–3
1993	3640	Campbell et al. 1993	Alternatives 2 and 3

Survey Year	FMSF Survey Number	Citation	APE
2003	9358	Florida Archaeological Consulting, Inc. 2003	Alternatives 2 and 3
2003	9493	Parker 2003	Alternative 1
2005	11134	Parker 2005	Alternative 1
2015	22358	Chambless et al. 2015	Alternative 1
2015	22532	Campbell et al. 2015d	Alternative 1
2016	23805	Campbell et al. 2016b	Alternative 2
2017	24705	Brannon et al. 2017	Alternative 1
2017	24683	Gregory and Vasquez 2017	Alternative 2
2020	29727	Bradley et al. 2020	Alternative 2 and 3
2024	No FMSF number	Bradley et al. 2024	Alternative 3

### 3.8.1.4 Previously Recorded Resources

A January 2025 search of the FMSF and Tyndall AFB's cultural resources inventory also revealed the presence of 117 archaeological sites and 161 historic structures within 1.6 kilometers (1.0 mile) of the proposed project areas. Appendix J, Table J-3 lists the archaeological sites and Appendix J, Table J-4 lists the historic structures. The cultural resources present within the study area provide evidence of continued human occupation at Tyndall AFB from the Early Archaic Period to the present.

Four archaeological sites and nine historic structures overlap with the Cleveland Gate Site and the Beacon Beach Site (Table 3.8-2 and Table 3.8-3); no resources overlap with the Youth Center Site. All the structures located within the bounds of the APE have been demolished or replaced for further development of the base or because of the impacts of Hurricane Michael. Three of the four intersecting archaeological sites (8BY01782, 8BY02723, and 8BY02727) are not eligible for listing in the NRHP and, therefore, will not be adversely affected by the proposed project. Site 8BY00154 is located along the southern boundary of the Beacon Beach Site and is eligible for the NRHP; a 50-meter protective buffer around the known boundaries of the site extends into the APE.

**Table 3.8-2. Cultural Resources within Alternative 1: Cleveland Gate Site APE**

Site Number	Resource Type	Site Description	NRHP Eligibility
8BY01782	Archaeological site	Weeden Island shell midden; 19th – 20th c. artifact scatter	Not eligible
8BY01156	Historic structure	N/A/ - Demolished and/or replaced	N/A
8BY01157	Historic structure	N/A/ - Demolished and/or replaced	N/A
8BY01158	Historic structure	N/A/ - Demolished and/or replaced	N/A
8BY01159	Historic structure	N/A/ - Demolished and/or replaced	N/A
8BY01160	Historic structure	N/A/ - Demolished and/or replaced	N/A
8BY01161	Historic structure	N/A/ - Demolished and/or replaced	N/A
8BY01162	Historic structure	N/A/ - Demolished and/or replaced	N/A
8BY01163	Historic structure	N/A/ - Demolished and/or replaced	N/A
8BY01164	Historic structure	N/A/ - Demolished and/or replaced	N/A

Note: N/A = not applicable.

**Table 3.8-3. Cultural Resources within Alternative 3: Beacon Beach Site APE**

Site Number	Resource Type	Site Description	NRHP Eligibility
8BY00154	Archaeological site	Woodland Period shell midden	Eligible
8BY02723	Archaeological site	Undetermined prehistoric artifact scatter	Not eligible
8BY02727	Archaeological site	Undetermined prehistoric artifact scatter	Not eligible

### 3.8.2 Environmental Consequences

#### 3.8.2.1 Proposed Action Alternative 1: Cleveland Gate Site

No short- or long-term adverse effects resulting from construction and/or operational activities would be anticipated on historic properties for this alternative (Table 3.8-4). Proposed construction and operational activities would include demolition, clearing, vegetation removal, ground leveling, paving, staging, extensive structural construction, and people walking on the site. The 10 cultural resources within the boundaries of Alternative 1 (one archaeological site and nine now-demolished historic structures) have been determined not to be eligible for the NRHP; therefore, no adverse effects are anticipated.

#### 3.8.2.2 Proposed Action Alternative 2: Youth Center Site

No short- or long-term adverse effects resulting from construction and/or operational activities would be anticipated on historic properties for this alternative. Proposed construction and operational activities would include demolition, clearing, leveling, paving, staging, building, and pedestrian disturbance. Since no cultural resources fall within the APE of Alternative 2 as reflected in Table 3.8-4, there would be no anticipated adverse effects.

#### 3.8.2.3 Proposed Action Alternative 3: Beacon Beach Site

Short- and long-term, significant-but-mitigable adverse effects on a historic property (site 8BY00154) would be expected under Alternative 3 of the proposed project (Table 3.8-4). The remaining cultural resources located within the APE (sites 8BY02723 and 8BY02727) are not expected to be adversely affected by Alternative 3 as neither resource is eligible for the NRHP.

**Table 3.8-4. Cultural Resources within APEs for the Three Alternatives**

Alternative	Effects on Cultural Resources	Adversely Affected Cultural Resources	Short-Term Effect	Long-Term Effect
Alternative 1	No effects	N/A	N/A	N/A
Alternative 2	No effects	N/A	N/A	N/A
Alternative 3	Short- and long-term effects	Site 8BY00154	Stratigraphic disturbance	Erosion; looting

Note: N/A = not applicable.

**Construction.** The proposed actions of Alternative 3 have the potential to impact site 8BY00154 by repeatedly causing ground disturbances that would destroy the stratigraphic integrity of both known and unknown components of the NRHP-eligible site. Per the most recent cultural resources report discussing 8BY00154, the eastern boundary of the site remains unknown due to the presence of impermeable concrete pads associated with military housing (Bradley et al. 2024). This is of particular interest in the northwestern part of 8BY00154, where the eligible portion of the site is located. The report, which received FDHR concurrence in 2025, also

recommends conducting additional investigations should the existing housing slabs adjacent to the eligible component of the site be removed in order to determine the eastern extent of the NRHP-eligible site component (Bradley et al. 2024; FDHR 2025). Other ground disturbances proposed for Alternative 3 would make it more likely that intact portions of site 8BY00154 would be uncovered and disturbed. Removing sediment layers from above intact soil features increases the threat of the site being damaged or destroyed by hurricanes and other natural events. Environmental clearance and mitigation measures for Alternative 3 would require adherence to federal preservation laws and require additional site testing, evaluation, and/or mitigation.

**Operations.** Following construction, the continued use of the APE as a school would have long-term effects on site 8BY00154. Establishing a school at the Beacon Beach Site would allow the public greater access to site 8BY00154. This increased access also would increase the risk of looting and vandalism of archaeological remains and further increase erosion through foot traffic.

#### **3.8.2.4 No Action Alternative**

No effects on cultural resources would be expected under the No Action Alternative. The Beacon Beach Site contains portions of one known NRHP-eligible archaeological site (8BY00154). If the No Action Alternative is selected, the DAF would be required through NHPA Section 110 to preserve these cultural resources by protecting the sites from external actions, such as vandalism and surface disturbances.

#### **3.8.2.5 Combined Effects with Other Actions**

No adverse combined effects would be expected to impact cultural resources associated with Alternatives 1 and 2; no cultural resources fall within the boundaries of Alternative 1 and no NRHP-eligible cultural resources fall within the boundaries of Alternative 2 (see 3.8.2.1 and 3.8.2.2).

Combined adverse effects are expected to impact NRHP-eligible cultural resources within Alternative 3 due to site proximity to Morale, Welfare, and Recreation and Coastal Resilience Implementation Plan projects. Short- and long-term effects on site 8BY00154 from implementing the Proposed Action have the potential to disturb the stratigraphic integrity of the resource: Losing its stratigraphic integrity would result in site 8BY00154 no longer being eligible for listing in the NHRP. If Alternative 3 were selected for the Tyndall Academy site, a significant adverse combined effect on site 8BY00154 would be expected.

#### **3.8.2.6 Mitigation**

Section 106 of NHPA stipulates that the Tyndall AFB must conduct additional consultation with the Advisory Council on Historic Preservation, FDHR, and government-to-government consultation with the six Native American tribal nations with a historic interest in the area, prior to pursuing an undertaking that would adversely affect a historic property. Consultation with Advisory Council on Historic Preservation, FDHR, and tribal nations would include discussions of mitigation measures surrounding Alternative 3. As there will be ground-disturbing activities associated with archaeological sites over 100 years old, a qualified archaeologist would need to apply and receive an Archaeological Resources Protection Act (ARPA) permit to conduct monitoring or excavations within the APE. In accordance with the SOPs established in the Tyndall AFB ICRMP, an archaeological monitor would be required on-site during ground-

disturbing activities associated with Alternative 3 to mitigate the effects to both NRHP-eligible and ineligible archaeological sites. The archaeological monitor would be required to follow the SOP for monitoring established in the Tyndall AFB ICRMP. Mitigation requirements for Alternative 3 also may include the placement of temporary fencing around the boundaries of site 8BY00154 during construction; altering designs with stakeholder consultation to include other site protection measures; adapting the proposed plans to avoid the resource; or conducting a Phase III archaeological investigation to salvage the site prior to development. Additional creative mitigation measures may be designed through consultation and government-to-government consultation (e.g., public education or interpretive design). All archaeological investigations performed will be subject to Florida archaeological standards and will require an ARPA permit (FDHR 2003).

These suggested mitigation measures provide a starting point for future Section 106 consultation and government-to-government consultation. After one of the three alternatives is selected, the DAF will be required to conduct additional, site-specific Section 106 consultation with relevant stated stakeholders. BMPs are provided in Appendix E.

### **3.9 Hazardous Materials and Hazardous Waste**

Tyndall AFB is the ROI for hazardous materials and hazardous waste. Effects from hazardous materials and waste would be considered significant if the Proposed Action resulted in substantial risks to human health or safety, such as direct human exposure to or a substantial increase in environmental contamination. Tyndall AFB's 325th CES manages hazardous materials and waste in accordance with DAFMAN 32-7002; DAFI 90-821, *Hazard Communication (HAZCOM) Program*; and the installation's Spill Prevention, Control, and Countermeasure (SPCC) Plan (DAF 2023a; Oneida 2021). Pesticides are managed through the Integrated Pest Management Program in compliance with DAFMAN 32-1053, *Integrated Pest Management Program*; DoD Manual 4150.07, *DoD Pest Management Program Elements and Implementation: Structure and Operation*; and the Federal Insecticide, Fungicide, and Rodenticide Act. Hazardous waste is managed under the installation's Hazardous Waste Management Plan (HWMP) in alignment with DAFMAN 32-7002. Hazardous materials used in routine operations include substances from electrical systems; heating, ventilation, and air conditioning; generators; storage tanks; pest control; and petroleum, oil, and lubricants such as fuels and solvents. The HWMP covers personnel responsibilities, waste inventories, handling, training, emergency response, and pollution prevention. The SPCC Plan, developed in accordance with USEPA requirements, provides guidelines for spill prevention and policy, serving as a single-source reference for base personnel for managing spills and preventing risks.

#### **3.9.1 Affected Environment**

##### **3.9.1.1 Environmental Restoration Program**

The ERP addresses past hazardous material management practices that led to contamination at DoD installations. Under the Defense ERP and its associated Defense Environmental Restoration Account, Tyndall AFB conducts site cleanups to meet CERCLA and Superfund Amendments and Reauthorization Act requirements. These programs follow the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300) and rely on USEPA and FDEP guidance for investigation and remediation.

Alternative 1 and Alternative 3 are located near areas undergoing or previously subject to environmental restoration, requiring coordination with ongoing remediation and adherence to site-specific environmental protocols. Table 3.9-1 gives historical context to environmental restoration for Alternatives 1 and 3.

**Table 3.9-1. Review of ERP Sites**

<b>Alternative</b>	<b>Site Description</b>	<b>Environmental Concerns</b>	<b>Nearby Environmental Restoration Sites</b>
Alternative 1: Cleveland Gate Site	52 acres; currently vacant; ~90% covered with white pines; aerial imagery shows scattered debris and demolished structure remnants (1930s–1950s).	Potential ACM; potential LBP; possible subsurface infrastructure hazards.	SR170a (Tyndall Elementary School Target Range): 25 acres; developed 1951; soil remediation in 2009, 2015, 2016. SR170: 201 acres; weapons training use (1941–1945); dinitrotoluene treated in 2020; ongoing under 2021 Munitions Response Program; arsenic groundwater plume to the south.
Alternative 3: Beacon Beach Site	76 acres; vegetated open space; former Capehart Housing, demolished post-Hurricane Michael (2020).	Potential ACM from 1950s–60s housing; potential LBP; possible subsurface utilities.	LF011 (Boy Scout Road Yard Trash Disposal Area): South of U.S. Hwy 98; yard waste disposal since 1980; 1981 investigation found no hazardous waste.

Alternatives 1 and 3 contain demolition debris potentially regulated under CERCLA and RCRA. All soil and debris must be sampled for hazardous constituents during site characterization. If contaminants (e.g., heavy metals, polychlorinated biphenyls [PCBs], SVOCs, and VOCs) exceed regulatory limits, cleanup must follow environmental restoration guidance. To date, BDS has contracted Cypress Environmental to conduct a soil and groundwater screening-level testing at Alternative 1. The testing detected levels of the pesticide dieldrin above residential and commercial/industrial SCTLs at two locations and only residential at one location. The testing also detected exceedance of GCTLs at five locations (Cypress Environmental 2025). Two locations detected GCTLs exceedance of aldrin and one location detected exceedances for SVOCs benzo(a)anthracene, benzo(a)fluoranthene, and indeno(1,2,3-cd)pyrene. In January 2026, soil borings and groundwater monitoring wells were installed and sampled at the site. Soil samples collected from three borings (0–6 ft bgs) identified dieldrin concentrations exceeding Florida SCTLs at select locations (Cypress Environmental 2026). No other COCs exceeded applicable standards. Groundwater samples collected from newly installed monitoring wells indicated dieldrin concentrations above the Florida GCTL in two wells (PW-8 and PW-9); no other analytes exceeded regulatory criteria. Impacted soils are recommended for delineation and proper disposal during construction, and an additional groundwater sampling event is recommended to confirm dieldrin concentrations and determine whether further assessment or remediation is warranted. In accordance with CERCLA and DAFI 32-1023, *Designing and Constructing Military Construction Projects*, the DAF retains ownership and responsibility for contaminated sites located on its installations. Under CERCLA, contaminated materials must be sent to licensed treatment, storage, and disposal facilities in accordance with Section 121(d)(3) and the USEPA Off-Site Rule (40 CFR § 300.440). RCRA requires waste evaluation (40 CFR § 262.11), testing of debris for hazardous characteristics (40 CFR Part 261), and compliance with Subtitle C management, labeling, and disposal standards. Land disposal restrictions (40 CFR § 268.45) also may apply.

### **3.9.1.2 Asbestos-Containing Materials, Lead-Based Paint, and Polychlorinated Biphenyls**

ACM, LBP, and PCBs were commonly used in Tyndall AFB infrastructure built before their consumer bans in the 1970s and 1980s. These hazardous substances are managed in accordance with USEPA and Occupational Safety and Health Administration (OSHA) regulations (29 CFR § 1910.1001). LBP disposal follows 40 CFR Part 260, and PCBs are regulated under the Toxic Substances Control Act (40 CFR Part 761). Intact infrastructure and equipment containing these materials pose no health or safety risks and are managed in place during renovations or demolition. If damaged, appropriate measures are taken to prevent exposure. A building survey must be completed or reviewed before any renovation or demolition, and the DAF must identify and remove materials in accordance with regulatory requirements. Tyndall AFB has established procedures to manage, identify, and remediate those hazards while ensuring regulatory compliance. DAFI 32-1001 requires both an asbestos management plan documenting the condition of ACM and an asbestos operating plan guiding asbestos-related work (DAF 2025b). Special hazards are removed, stored, and disposed of in accordance with the base's asbestos operations and management plan; LBP management plan; and applicable federal, state, and local regulations (DAF 2023a).

### **3.9.1.3 Underground and Aboveground Storage Tanks**

There are no known storage tanks at any of the alternative action sites; however, because of the age of the former Capehart Housing at the Beacon Beach Site and the structures identified in the historical photographs at the Cleveland Gate Site, there is potential for the discovery of an abandoned tank system.

### **3.9.1.4 Radon**

Bay County is an area of low radon potential (probable indoor radon average is below 4 picocuries per liter) (FDH 2019). The DAF has specific requirements for radon testing and mitigation in military housing to protect the health and safety of residents.

### **3.9.1.5 Per- and Polyfluoroalkyl Substances**

Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) are part of the broader group of per- and polyfluoroalkyl substances (PFAS) and were key components in legacy aqueous film forming foam used by the DAF beginning in the 1970s. In 2015, environmentally responsible aqueous film forming foam formulas were approved by DoD, with the DAF beginning replacement of legacy products in 2016 and completing delivery in 2017, including at Tyndall AFB.

In April 2024, USEPA designated PFOA and PFOS as hazardous substances under CERCLA and set enforceable drinking water maximum contaminant levels at 4 parts per trillion (USEPA 2024c, 2024d). DoD has since required all installations to test for PFOS and PFOA in drinking water. While there is no historical data of PFAS release on any of the Action Alternative sites, the DAF must follow the March 2025 DAF Memorandum and current PFAS regulations and best practices (Cintron 2026, Comment Response Matrix entry; DAF 2025c).

## 3.9.2 Environmental Consequences

### 3.9.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short-term, less-than-significant adverse effects and long-term beneficial effects for hazardous materials and waste would be expected.

**Construction.** There would be short-term, less-than-significant adverse effects from construction activities related to hazardous material use and hazardous waste generation. The amounts of hazardous materials used and stored would increase temporarily during construction. Any hazardous materials used in, or hazardous wastes generated from, construction would be accumulated and removed in compliance with the procedures provided in the installation's existing HWMP (DAF 2023a). On-site soil must be managed following the March 2025 DAF Memorandum and current PFAS regulations and best practices (DAF 2025c). Special hazards would be removed, stored, and disposed of in accordance with the installation's ERP, HWMP, and applicable federal, state, and local regulations (DAF 2023a). Furthermore, any potential spills from construction equipment would be cleaned up in accordance with the SPCC Plan (Oneida 2021).

In addition to the COCs discussed in Section 3.9.1.1, the Cleveland Gate Site contains demolition debris from former structures, including concrete pads and rubble piles, which may harbor other hazardous constituents. Management of these materials falls under CERCLA and RCRA. CERCLA governs the investigation and cleanup of hazardous substance releases. If dewatering is necessary, groundwater or stormwater with organic contaminants must be pretreated on-site if concentrations exceed NPDES or municipal separate storm sewer system discharge limits. Construction on or near sites with contamination must account for potential risks to human health and the environment as well as ensure compatibility with ongoing or planned remedial actions. If contamination requiring removal is encountered during construction, the DAF must address it as part of the project scope, in compliance with the DAF policies and other guidance and relevant regulatory authorities.

Demolition activities could result in short-term, less-than-significant adverse effects due to potential existence of ACM, LBP, PCBs, or other COCs such as PFAS. Removal of these materials, however, would provide long-term environmental and health benefits. The DAF must survey foundations and rubble piles for hazardous materials before demolition or treat them as contaminated. Workers must be informed of known hazards, wear appropriate personal protective equipment, and ensure all hazardous waste is properly contained and transported to approved off-site disposal facilities.

**Operations.** The operations of the school would have no effect on hazardous materials or hazardous waste generation at Tyndall AFB. The use of hazardous materials and the generation of hazardous waste during operations are expected to remain consistent with current levels and managed by BDS by implementing regulations and BMPs (Appendix E).

### 3.9.2.2 Proposed Action Alternative 2: Youth Center Site

Short-term, less-than-significant adverse effects and long-term beneficial effects on hazardous materials and waste management would be expected under Alternative 2, consistent with the impacts described for Alternative 1. From a hazardous materials and hazardous waste perspective, the overall management framework, regulatory applicability, and compliance requirements remain the same across all three alternatives. There are no known restoration sites

associated with this alternative. However, on-site soils, or if reused or transported off-site, would be subject to the same regulatory requirements as Alternatives 1 and 3 and would be managed in an equivalent manner to ensure compliance with applicable DoD, federal, state, and local regulations. No substantive differences in construction methods or operational activities under Alternative 2 would alter regulatory obligations under RCRA or other governing statutes. Therefore, Alternative 2 is considered comparable to Alternative 1 with respect to hazardous materials and hazardous waste management and compliance.

### **3.9.2.3 Proposed Action Alternative 3: Beacon Beach Site**

Short-term, less-than-significant adverse effects and long-term beneficial effects for hazardous materials and waste would be expected under Alternative 3, as described for Alternative 1. From a hazardous waste and material perspective, the management framework and compliance requirements remain consistent across all three alternatives. There are no substantive differences in regulatory applicability or procedural obligations under RCRA or other governing statutes. Accordingly, Alternative 3 should be considered equivalent to Alternative 1 with respect to hazardous materials and waste management and compliance.

### **3.9.2.4 No Action Alternative**

No adverse effects would occur under the No Action Alternative. The project site would remain in its current condition, with no new construction or redevelopment.

### **3.9.2.5 Combined Effects with Other Actions**

Less-than-significant, adverse combined effects related to hazardous materials and waste would be expected. Construction activities within the same area as other projects might cause short-term combined effects from handling fuels, solvents, and chemicals, but they would remain minimal with regulatory compliance under CERCLA, RCRA, and DoD protocols.

### **3.9.2.6 Mitigation**

No mitigation for hazardous materials and waste would be required. BMPs are provided in Appendix E. Remedial action will be required for COCs identified in the 2025 and 2026 site investigations above applicable regulatory limits. It is assumed that appropriate corrective measures will be implemented during construction in accordance with state regulatory requirements.

## **3.10 Infrastructure and Utilities**

The ROI for the analysis of infrastructure and utilities consists of the sites where the proposed project would be implemented and utility and infrastructure systems on Tyndall AFB that could be affected by leasing the property to construct the new school. Effects would be considered significant if the Proposed Action impaired service to the base and local communities.

### **3.10.1 Affected Environment**

Infrastructure and utilities refer to the essential services required to support the proposed lease and construction of a public school as well as the ongoing operation of existing facilities. For this EA, “infrastructure” includes resources that could impact Tyndall AFB mission readiness, specifically potable water, energy, sanitary sewer, stormwater, and solid waste systems. The three proposed alternatives each present unique infrastructure concerns.

Tyndall AFB utility supply systems have the capacity to meet base demand and are considered sufficient to serve existing and planned facilities (HDR 2015). The DAF upgrades utility systems on the base to provide additional capacity as needed. The 325 CES identifies the presence of existing or planned utility systems during the site review process before proposed construction projects can begin in accordance with UFC (UFC 2021, 2024a, 2024b).

### **3.10.1.1 Potable Water Supply System**

Gulf Coast Electric Cooperative (GCEC) has a 50-year lease and a contract to maintain the base's water distribution system (GCEC 2021). Panama City's Bay County Utility Services provides water for the installation. The water source for the Bay County Potable Water System is Deer Point Reservoir (surface water), which is in mid-Bay County. At the southern end of the reservoir, the Williams Bayou Raw Water Pumping Station pumps the water through large diameter raw water mains to the WTF located near U.S. Hwy 231 at 3410 Transmitter Road approximately 1 mile north of the City of Springfield, FL, and about 11 miles north of Tyndall AFB. There are three storage tanks at the WTF and wholesale water transmission lines and retail water distribution lines from the facility to various areas of the Bay County (Bay County 2023). Tyndall AFB's potable water system has sufficient capacity to serve existing and planned facilities (HDR 2015). The DAF upgrades the potable water utility system on the base to provide additional capacity as needed and in accordance with UFC (UFC 2021).

### **3.10.1.2 Energy Systems**

GCEC has a 50-year lease and a contract to maintain the base's electric distribution system (GCEC 2021). GCEC purchases energy from Power South Energy Cooperative in Andalusia, AL, and receives power at eight 115-kilovolt (-kV) substations and two 46-kV substations (GCEC 2023). The installation has two 46-kV lines installed in 1961, each capable of carrying 25 megawatts and feeding separate 20 megavolt-ampere transformers that step down voltage to 12.47 kV for distribution. Power is then routed through government-owned radial feeders: Bay #1 (Wherry and Mississippi), Bay #2 (Suwannee), Bay #3 (Hospital), and Bay #4 (Flight Line). The Base Housing feeders consist of two lines that includes 52,400 single contingency load flow wire and 46 GCEC-owned transformers serving the Tyndall AFB Homes and Tyndall Academy areas. Tyndall AFB Homes are privatized, on-base military family housing. GCEC operates the Tyndall AFB Homes electric system. Tyndall AFB's electric system has sufficient capacity to serve existing and planned facilities (HDR 2015). The 325 CES evaluates auxiliary grid electrical components for each proposed project and, if required, the DAF upgrades the system to provide additional capacity as needed in accordance with UFC (UFC 2024a).

### **3.10.1.3 Sanitary Sewer System**

GCEC has a 50-year lease and a contract to maintain the base's wastewater system. Bay County operates and manages three wastewater treatment systems that provide current wastewater treatment and disposal for the City of Callaway, City of Mexico Beach, City of Parker, City of Springfield, Tyndall AFB, and unincorporated areas within Bay County. The Bay County existing collection and transmission system has approximately 13 miles of vacuum pipe, 10 miles of force main, 33 miles of gravity sewer, and 51 pump stations. The pipe sizes range from 2 inches to 36 inches in diameter. There are currently nine separate collection systems within the Bay County sewer system: four systems are owned and maintained by Bay County and five are owned and maintained individually by the City of Callaway, City of Mexico Beach, City of Parker, City of Springfield, and Tyndall AFB. Wastewater collected from the five individual

systems is pumped to the Military Point Advanced Wastewater Treatment Plant via five master lift stations (Bay County 2023). Tyndall AFB's wastewater system has sufficient capacity to serve existing and planned facilities (HDR 2015). The DAF upgrades wastewater utility system on the base to provide additional capacity as needed and in accordance with UFC (Tyndall AFB 2020b; UFC 2024b).

#### **3.10.1.4 Stormwater System**

Stormwater management for the Tyndall Academy is overseen by Bay County Engineering. The stormwater utility functions much like a water or sewer utility, operating as a stand-alone unit within Bay County government.

The Tyndall AFB drainage system comprises two systems, generally divided by U.S. Hwy 98 and identified as the Flight Line District drainage system and the Support District drainage system. The Florida Department of Transportation (FDOT) constructed and maintains the drainage system for U.S. Hwy 98. This system ties into the existing base drainage systems along the highway. FDOT has developed an improvements plan for U.S. Hwy 98 that will coincide with the reconstruction of Tyndall AFB. The Flight Line District system includes a piped system, a few on-site treatment ponds in the upland areas, and a combination of piped and channelized drainage systems throughout the airfield. Wet ponds are generally not used in the flight line areas because of BASH risks. The Tyndall AFB Support District's existing drainage infrastructure consists of an aging piped system, linear surface channels, and scattered dry and wet detention ponds (Tyndall AFB 2020c). All new construction projects that have the potential to increase flow must be evaluated, because of downstream effects on aging stormwater infrastructure (Tyndall AFB 2020d).

#### **3.10.1.5 Solid Waste Management**

The Bay County Solid Waste Division offers BDS environmentally responsible disposal solutions for municipal solid waste generated within the county. The transportation and transfer of solid waste for Tyndall Academy are managed under contract by BDS, which coordinates logistics and ensures proper handling and delivery to designated disposal or processing facilities (Bay County 2021).

The 325 CES manages the Tyndall AFB Solid Waste Management Program. The program applies to all commercial and industrial areas on Tyndall AFB, including tenants who operate on Tyndall AFB property. This includes all active duty and civilian operations as well as tenant organizations, such as the Defense Commissary Agency and Army Air Force Exchange Service (DAF 2023b). Tyndall AFB has the solid waste capacity and contracts in place to effectively serve existing and planned facilities.

### **3.10.2 Environmental Consequences**

#### **3.10.2.1 Proposed Action Alternative 1: Cleveland Gate Site**

Short-term, less-than-significant adverse and long-term beneficial effects on infrastructure and utilities would be expected. Adverse effects would result from construction activity. Beneficial effects would result from new energy-efficient systems. Tyndall AFB infrastructure and utility systems, with the exception of stormwater, have sufficient capacity to handle demands during construction and operation.

**Construction.** During construction, electricity would likely be provided by portable generators, and portable toilets would be used for sanitary waste. Water would be used during construction, but there is sufficient capacity available. The site would connect to existing utilities, including an 8-inch gravity sewer line and an 8-inch water main for domestic and fire service. Electrical service would be extended from the existing Base Housing feeder. If the project involves the construction of a water main extension, a permit would be required under Rule 62-555, Florida Administrative Code (F.A.C.). Additionally, a wastewater permit might be required for the proposed facilities per Rule 62-620, F.A.C.

Construction activities would involve channelizing drainage areas, clearing the vegetation, and installing impervious surfaces, all of which could increase stormwater runoff downstream. The combined effects of new impervious surfaces and the removal of vegetation could elevate runoff volumes and peak flow rates. Those changes might exceed the current design capacity of the stormwater conveyance systems south of the site, potentially causing erosion, sediment transport, and localized flooding. Site preparation would involve vegetation clearing, grading, and installation of impervious surfaces, increasing stormwater runoff and flow rates. Those changes could strain downstream systems, posing erosion and flooding risks. An FDEP Environmental Resource Program Individual Permit would be required for the proposed construction, in accordance with Rule 62-330.020, F.A.C., as the Proposed Action includes the addition of more than 9,000 SF total of impervious surface. A stormwater model should be completed prior to construction, and appropriate controls must be designed to meet Bay County engineering standards. With the modeled designs, implementing the Proposed Action at the Cleveland Gate Site would result in short-term, less-than-significant effects on infrastructure and utilities.

Demolition and construction activities would be expected to generate various types of solid waste that would require proper collection, handling, and off-site disposal by the construction contractor. The waste would primarily consist of materials such as asphalt, concrete, metals, wood, and general debris resulting from the clearing and grubbing of vegetation, including the removal of trees, as well as the demolition and removal of former building foundations and roads at the site. The contractor would be responsible for the appropriate management and lawful disposal of all demolition- and construction-related waste. All waste must be transported to permitted facilities in accordance with applicable local, state, and federal regulations. Those activities are not anticipated to place additional strain on the existing solid waste collection and disposal services currently operating at Tyndall AFB or within the surrounding communities, as contractors would manage their waste independently of municipal systems. The construction contractor would be required to verify and document that sufficient landfill capacity exists prior to demolition and construction activities. Table 3.10-1 lists the estimated volume of demolition waste that would be generated at each site. Approximately 40 percent of the demolition waste would be diverted for reuse (DAF 2023b).

**Table 3.10-1. Anticipated C&D Debris Volumes by Action Alternative**

<b>Action Alternative</b>	<b>Estimated Volume of Waste</b>
Alternative 1: Cleveland Gate Site	30,000 CY
Alternative 2: Youth Center Site	19,000 CY
Alternative 3: Beacon Beach Site	25,000 CY

**Operations.** The new, modern school facilities would incorporate energy-efficient systems, reducing electricity and water consumption. Water and sewer usage are expected to remain stable, as student enrollment would not change significantly. Communication demands also would remain consistent, supporting functions similar to those of the existing school. BDS would manage solid waste from the new school through its existing contract with the Bay County Solid Waste Division.

No effects would be expected from BASH risks because BDS would need to manage the stormwater detention ponds that would be created on the Cleveland Gate Site in compliance with Tyndall AFB's BASH plan using BMPs (Appendix E).

### **3.10.2.2 Proposed Action Alternative 2: Youth Center Site**

Short-term, less-than-significant adverse and long-term beneficial effects on utilities and infrastructure would be expected under Alternative 2, similar to those under Alternative 1. Both alternatives would rely on the existing electrical, solid waste, sewage, and drinking water utility systems. Minor variations in alignment distance for the utilities, localized upgrades for electrical, sewage and site drainage configurations would not substantially change the scale or intensity of construction or operational effects. The new utility designs would replace older systems with modern, more energy-efficient infrastructure, reducing overall consumption and improving operational sustainability. These differences are not environmentally meaningful and would not alter the overall impact determination.

### **3.10.2.3 Proposed Action Alternative 3: Beacon Beach Site**

Short-term, less-than-significant adverse and long-term beneficial effects on utilities and infrastructure would be expected under Alternative 3, similar to those under Alternative 1. Both alternatives would rely on the existing electrical, solid waste, sewage, and drinking water utility systems. Minor variations in alignment distance for the utilities, localized upgrades for electrical, sewage and site drainage configurations would not substantially change the scale or intensity of construction or operational effects. Utility loads would remain within existing system capacities, and stormwater controls would meet the same regulatory standards under both alternatives. The new utility designs would replace older systems with modern, more energy-efficient infrastructure, reducing overall consumption and improving operational sustainability. These differences are not environmentally meaningful and would not alter the overall impact determination.

### **3.10.2.4 No Action Alternative**

No effects would be expected. Long-term beneficial effects of a new energy-efficient school building would not be realized.

### **3.10.2.5 Combined Effects with Other Actions**

Short-term, less-than-significant adverse combined effects on infrastructure and utilities would be expected because of effects on stormwater and an increase in electricity demand. Construction under any of the Action Alternatives would result in short-term, less-than-significant adverse effects because the Proposed Action may increase stormwater runoff due to channelization, vegetation removal, and new impervious surfaces. Those changes could place additional demand on downstream drainage systems. When combined with other ongoing and reasonably foreseeable on-base development projects, this would increase stormwater runoff during

construction activities, which would be managed through BMPs (Appendix E). A stormwater model evaluation and the inclusion of appropriate controls in project design would minimize these combined effects.

The project also would contribute to combined demand on the base's electrical grid. A system-wide evaluation from distribution lines to transformers should confirm whether capacity upgrades would be needed to support the new facilities on Tyndall AFB. If required, coordination with utility providers would ensure continued service reliability.

### 3.10.2.6 Mitigation

No mitigation for infrastructure and utilities would be required. BMPs are provided in Appendix E.

## 3.11 Transportation and Traffic

The roads on Tyndall AFB and roads providing access to the base are the ROI for transportation and traffic. Effects would be considered significant if the Proposed Action created a safety hazard for bicyclists, motorists, or pedestrians; or substantially exceeded road capacity and design.

### 3.11.1 Affected Environment

U.S. Hwy 98 provides access to Tyndall AFB from the north from DuPont Bridge over East Bay and from the south from Oceanside Village. The Alternative 1 site is directly off U.S. Hwy 98. The Alternative 2 site is about 1.5 miles west of the Sabre Gate on Sabre Drive, a 2-lane road that leads west from U.S. Hwy 98. Sabre Drive intersects Prime Beef Road, which bisects Alternative 2 site. The Alternative 3 site is also accessible from Sabre Drive and is about 2 miles west of Sabre Gate.

The following figures relating to traffic on the base were determined during a 2019 traffic study (Jacobs 2019):

- Daily traffic volume: 25,571 vehicles per day (average traffic flow).
- Morning peak traffic: 7 a.m. to 8 a.m. with 3,830 vehicles entering and 2,468 vehicles exiting the base.
- Afternoon peak traffic: 4 p.m. to 5 p.m. with 2,900 vehicles entering and 4,726 vehicles exiting the base.
- Truck traffic: About 7.9 percent of all traffic; about 250 during the morning peak, 300 during the afternoon peak, and 2,020 daily.

FDOT data from 2024 traffic counts on U.S. Hwy 98 through the base were 24,000 vehicles (average daily volume), which is consistent with Jacob's 2019 numbers (FDOT 2024).

### 3.11.2 Environmental Consequences

#### 3.11.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short- and long-term, less-than-significant adverse effects on traffic would be expected. Short-term effects would be from construction traffic and long-term effects would be from a slightly increased traffic volume to and from the new school.

**Construction.** The site would not require access to the interior of the base. Construction vehicles would add to the existing traffic volume and could slow traffic flow along U.S. Hwy 98,

primarily when entering and exiting the construction site. Mud and soil tracked onto U.S. Hwy 98 from the construction site could be a traffic nuisance, although it would not materially affect traffic flow or speed.

**Operations.** Traffic volume to and from the new Tyndall Academy would be slightly increased over traffic volume to and from the existing school because of the slightly higher number of students that would attend. The new site would be configured to handle the anticipated traffic volume. Peak-hour morning traffic congestion at the school would be expected to remain mostly unchanged, as would any congestion along U.S. Hwy 98 during afternoon school traffic hours.

### **3.11.2.2 Proposed Action Alternative 2: Youth Center Site**

Short- and long-term, less-than-significant adverse effects on traffic would be expected. Short-term adverse effects would be caused by construction vehicles and long-term adverse effects would be caused by school traffic. The traffic effects under Alternative 2 would be expected to be much the same as those under Alternative 1. Construction vehicle activity, however, would be less concentrated along U.S. Hwy 98 and, therefore, would be expected to have less effect on traffic along the road. Once the campus is open and the school is operational, school traffic to the Alternative 2 site would have to clear Security at either the new commercial gate, the Sabre Gate, or both. This could lead to longer wait times at the gate(s) and a shift in the timing and duration of peak morning and afternoon school traffic. The base would have to first develop a plan to determine how off-base students would access the Alternative 2 site without compromising base security.

### **3.11.2.3 Proposed Action Alternative 3: Beacon Beach Site**

Short- and long-term, less-than-significant adverse effects on traffic would be expected. Effects on traffic caused by construction and operations under Alternative 3 would be expected to be the same as those under Alternative 2 because construction traffic and school traffic would follow the same route(s) through the gates and to the school as they would under Alternative 2. An access plan for off-base students also would be required under Alternative 3.

### **3.11.2.4 No Action Alternative**

No short-term effects would occur under the No Action Alternative. Long-term effects may or may not occur depending upon BDS decisions concerning alternative school placement.

### **3.11.2.5 Combined Effects with Other Actions**

Short- and long-term, less-than-significant combined adverse effects on traffic volume and flow would be expected. Other projects on Tyndall AFB could overlap with the proposed school construction and combine to affect traffic volume and flow. Traffic effects would be manageable given that flow would be from both the south and north and each project would have a separate schedule and location.

FDOT plans to replace the DuPont Bridge with two new parallel bridges (FDOT 2025). During construction, travel would remain open on the existing bridge but drivers could encounter periodic lane closures, minor traffic shifts, and detours. FDOT would not close lanes during weekday peak commuter travel times, 6–9 a.m. and 3–5 p.m. Completion of the project is expected in 2030.

### 3.11.2.6 Mitigation

No mitigation for traffic and transportation would be required. BMPs are provided in Appendix E.

## 3.12 Safety and Health

The ROI for safety and health includes each Action Alternative site and all areas beyond it where people could be exposed to hazards associated with implementing elements of the Proposed Action. Those hazards may involve the release of hazardous materials and wastes, construction-related accidents, and impacts on the community's emergency response capabilities. Special consideration is given to the safety and security of students, ensuring that construction activities do not compromise their well-being through exposure to unsafe conditions or disruptions to emergency procedures. In preparing this analysis, the DAF evaluated potential consequences for construction workers, the public, and especially the student population during both the construction and operational phases of the school.

### 3.12.1 Affected Environment

All contractors performing construction activities are responsible for complying with OSHA regulations and must conduct all work in a manner that poses no undue risk to workers, personnel, or students. The safety design and construction of Florida public elementary and secondary schools must place a strong emphasis on student security, ensuring that children are protected from construction-related hazards and long-term safety threats (FLDOE 2025). Throughout the project life cycle, construction practices must align with the UFC, emphasize sustainability and energy efficiency, and maintain the highest standards of safety and student-centered design (FLDOE 2025).

Industrial hygiene programs address exposure to hazardous materials and hazardous wastes, use of personal protective equipment, and use and availability of Safety Data Sheets. Industrial hygiene is the responsibility of contractors, as applicable. Contractors are responsible for reviewing potentially hazardous workplaces, monitoring exposure to workplace chemicals (e.g., hazardous materials and hazardous wastes), physical stressors (e.g., noise propagation), biological agents (e.g., infectious waste), recommending and evaluating controls (e.g., ventilation and respirators), ensuring personnel are properly protected and unexposed, and ensuring a medical surveillance program is in place to perform occupational health physicals for workers subjected to any accidental chemical exposures or engaged in hazardous waste work.

### 3.12.2 Environmental Consequences

#### 3.12.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short-term, less-than-significant adverse effects, long-term significant-but-mitigable adverse effects, and long-term beneficial effects would be expected. Short-term effects would be expected on the safety and health of workers and on public health and safety from an increase in construction traffic on local roads and the potential for site contaminants. Operations would have long-term, significant-but-mitigable adverse effects because of noise. Operations of a new school that would be built to current regulations would have long-term beneficial effects on health and safety for students, faculty, and staff of the Tyndall Academy.

**Construction.** Construction workers and equipment operators face inherent risks during construction and maintenance. Contractors will mitigate these risks through industry-standard

safety practices and project-specific health and safety plans (HASPs) that identify, assess, and control hazards. Projects must implement controlled access points, secure perimeters, and integrated surveillance systems to maintain physical security while preserving a supportive learning environment. Clear separation of construction zones from operational areas, along with physical safeguards, will prevent unauthorized access and exposure to hazards. All building materials must be nontoxic, durable, and resistant to natural and man-made threats, including seismic events and blast impacts. Interior spaces—such as classrooms and corridors—must support safe evacuation and shelter-in-place procedures, with clearly marked exits and accessible egress routes.

School facilities must comply with Rule 6A-2.0010, F.A.C., *State Requirements for Educational Facilities* (SREF), the FBC, and *Florida Safe School Design Strategies to Enhance Security and Reduce Vandalism* (FLDOE 2023). These standards incorporate OSHA regulations (29 CFR Parts 1910 and 1926) and ensure the protection of workers, students, staff, and the public. Florida's codes also mandate hurricane-resilient design, fire and life safety measures, and accessibility standards, ensuring a secure, healthy, and resilient environment for all school occupants.

Short-term, less-than-significant adverse effects may occur during construction from minor demolition and excavation involving hazardous materials such as ACM, LBP, PCBs, PFAS, and other regulated substances. All applicable regulations, SOPs, and health and safety protocols would be implemented. Safety management practices, including abatement, controlled demolition, environmental controls, hazard identification, and worker protection, would be consistently implemented. Consequently, safety and health effects would be less than significant given regulatory compliance and BMPs (Appendix E). An ERP site adjacent to the Alternative 1 site is effectively managed so it would not affect students or staff. As discussed in Section 3.9.1, a 2025 soil and groundwater screening-level sampling report identified several COCs at or above applicable screening criteria (Cypress Environmental 2025). In January 2026, soil and groundwater sampling identified dieldrin concentrations exceeding applicable Florida SCTL and GCTL in limited areas of the site. No other contaminants exceeded regulatory standards. Impacted soils are recommended for delineation and proper disposal during construction; additional groundwater sampling is recommended to confirm results and determine whether further action is necessary. The DAF would be responsible for remediating contaminated sites on base in accordance with CERCLA (see Section 3.9.2.1).

Barriers and “No Trespassing” signs would be placed around the perimeter of the Cleveland Gate Site to deter children from entering the area during construction, and construction vehicles and equipment would be secured or removed when not in use. Similarly, short-term, less-than-significant adverse effects on safety and health would be expected to result from construction traffic. As discussed in Section 3.11, *Transportation and Traffic*, all construction traffic for Alternative 1 would have direct access to the Cleveland Gate Site from U.S. Hwy 98. All construction vehicles would comply with safety measures and, while traffic would increase on roads, it would not significantly affect traffic flow.

DoD's UFC provide the primary design standards for fuel storage. UFC 3-460-01, *Petroleum Fuel Facilities*, specifies that bulk fuel tanks must be sited with sufficient setback to prevent ignition of vapors and protect nearby buildings and people. UFC 3-460-01 recommends a minimum separation of about 100 ft between a very large aboveground fuel tank (over 50,000 gallons) and the nearest building or installation property line. This 100-ft setback (or at least one

tank diameter, whichever is greater) is intended to mitigate fire/explosion hazards. It ensures that, if the tank were to catch fire or rupture, the heat and flames would not immediately impinge on a building (such as a school) and gives a buffer for firefighting. Bulk fuel storage is located about 800 ft from the Cleveland Gate Site across U.S. Hwy 98.

**Operations.** Long-term, significant adverse effects would be expected from aircraft-related noise; however, mitigation measures would be implemented to reduce noise inside the school building, as described in Section 3.4.2.6. Long-term beneficial effects on safety and security also would be anticipated because of improved facility design and coordinated emergency response planning. The school would be designed and constructed to meet or exceed all applicable local, state, and federal safety standards, including current FBC and OSHA regulations. The design of the facility would incorporate principles of the *Florida Safe School Design Strategies to Enhance Security and Reduce Vandalism*, which are intended to enhance natural surveillance, access control, territorial reinforcement, and maintenance, thereby helping to deter and prevent criminal behavior within the school environment. During the operational phase, BMPs (Appendix E) would be implemented to minimize risks to human health and the environment. These measures would include, but are not limited to, dust suppression, spill prevention and control, careful site management practices, emergency preparedness planning, and continuous environmental monitoring.

As the land for the Proposed Action is owned by the DAF, the project also must conform to any DAF-specific safety policies or base requirements. The school would adhere to the base's Integrated Safety and Environmental Management System protocols. The lease agreement between the DAF and BDS would explicitly require compliance with all applicable safety and environmental regulations and would likely include provisions for the DAF to access the site for environmental monitoring and emergency response if ever needed. The management and operations of public schools involves established comprehensive policies and procedures to ensure compliance with federal, state, and local health and safety regulations. By complying with this comprehensive framework of regulations and standards, the project ensures that safety is built into both the construction process and the long-term operation of the school.

The proposed construction of a new school near a DAF airfield has been evaluated in accordance with DoDI 4165.57. AICUZ mapping delineates areas of aircraft noise exposure extending outward from base runways. Noise levels ranging from a DNL of 65 dB to 74 dB are generally considered incompatible with educational land use unless substantial noise attenuation measures are implemented, while a DNL of 75 dB or higher is deemed incompatible with educational use. These compatibility factors must be fully evaluated during project siting to ensure noise exposure and land use considerations are adequately addressed before project approval.

Mitigation measures would include installation building enhancements such as sound-rated windows and wall insulation, and mechanical ventilation for windows-closed operation, as well as extension of the Runway 14R flight track. Building design would follow American National Standards Institute/ Acoustical Society of America S12.60 standards to reduce interior noise. Through site planning, BDS could arrange interior space to use noise-tolerant areas to buffer noise-sensitive classrooms. Outdoor activities, however, would still experience intermittent high noise levels that could affect conversation and safety communication. With the implementation of and adherence to applicable regulations and BMPs, the Proposed Action would contribute positively to community infrastructure by providing a secure, modern educational facility.

For safety relating to how close the Alternative 1 site is to the airfield, while the probability of an accident affecting the school cannot be considered absolutely zero, it is sufficiently low to be regarded as minimal or near negligible in terms of potential harm based on the CZ and APZs.

### **3.12.2.2 Proposed Action Alternative 2: Youth Center Site**

Short-term, less-than-significant adverse effects and long-term beneficial effects on health and safety would be expected, consistent with those described for Alternative 1. As discussed in Section 3.4.2.2, although unlike Alternative 1, the Alternative 2 site would be in a compatible noise contour, speech interference from overflights would be possible at the site, and an architectural-acoustical consultant would be engaged to specify and verify building envelope measures for DAF NLR compliance and to perform site-specific assessments ensuring code adherence. Noise mitigation upgrades would increase construction and maintenance costs. As with Alternative 1, short-term, less-than-significant adverse effects would be expected from demolition and excavation involving hazardous materials such as ACM, LBP, PFAS, PCBs, and other regulated substances, and long-term beneficial effects would be expected from the operation of a new school designed and constructed to meet or exceed all applicable local, state, and federal safety standards.

### **3.12.2.3 Proposed Action Alternative 3: Beacon Beach Site**

Short-term, less-than-significant adverse effects and long-term beneficial effects on health and safety would be expected, consistent with those described for Alternative 1. As discussed in Section 3.4.2.3, although unlike Alternative 1, Alternative 3 site would be in a compatible noise contour, speech interference from overflights would be possible at the site, and an architectural-acoustical consultant would be engaged to specify and verify building envelope measures for DAF NLR compliance and to perform site-specific assessments ensuring code adherence. Noise mitigation upgrades would increase construction and maintenance costs. As with Alternative 1, short-term, less-than-significant adverse effects would be expected from demolition and excavation involving hazardous materials such as ACM, LBP, PFAS, PCBs, and other regulated substances, and long-term beneficial effects would be expected from the operation of a new school designed and constructed to meet or exceed all applicable local, state, and federal safety standards.

### **3.12.2.4 No Action Alternative**

No short-term effects would occur under the No Action Alternative. Long-term effects may or may not occur depending upon BDS decisions concerning alternative school placement.

### **3.12.2.5 Combined Effects with Other Actions**

During construction, the Proposed Action, in combination with other ongoing development projects on the base, may create short-term, less-than-significant combined effects on safety and health. Contractors, however, will develop and follow project-specific HASPs to identify, evaluate, and reduce potential hazards. By implementing the HASPs, contractors would actively minimize safety risks to both construction workers and the public.

### **3.12.2.6 Mitigation**

BDS and Tyndall AFB would implement the following mitigation measures, detailed in Section 3.4.2.6, to address the significant adverse effects on public health from elevated noise levels at the Alternative 1 site. BMPs are provided in Appendix E.

- Incorporate building envelope and operational measures for NLR (e.g., installation of sound-rated windows and wall insulation and mechanical ventilation for windows-closed operation).
- Extend the Runway 14R flight track.
- Arrange interior space to use noise-tolerant areas to buffer noise-sensitive classrooms.
- The lease shall designate any portion of the parcel located within 600 ft of the site's southeastern boundary as an exclusion area to be reserved exclusively as greenspace, with no facilities, buildings, classrooms, instructional spaces, or other improvements permitted. Regardless of the alternative chosen, an architectural-acoustical consultant should be engaged to specify and verify building envelope measures for DAF NLR compliance and to perform site-specific assessments to ensure code adherence. Noise mitigation upgrades would increase construction and maintenance costs.

### 3.13 Socioeconomics

The socioeconomic ROI is a geographic area selected as a basis on which social and economic effects of project alternatives are analyzed. The socioeconomic ROI for this Proposed Action is defined as the Panama City Metropolitan Statistical Area (MSA), which consists of Bay and Gulf counties in Florida. Socioeconomic resources would be significantly affected if implementing an alternative would cause (1) substantial gains or losses in population or employment; (2) disequilibrium in the housing market, such as severe housing shortages or surpluses; or (3) project-related demands on public infrastructure or services triggering the need for expanded capacity or resulting in discernible reductions in the service level provided.

#### 3.13.1 Affected Environment

The MSA has a growing economy and population. The MSA gross domestic product (GDP) increased from \$9.8 billion in 2020 to \$13.3 billion in 2023, a 37 percent increase. That almost is the same as Florida's GDP increase of 40 percent and higher than the U.S. GDP increase of 30 percent (BEA 2024). On the basis of population, Bay and Gulf counties are the 30th and 59th largest counties in the state, respectively, out of 67 counties (Cubit 2025). The MSA economy is driven by tourism (beaches and outdoor recreation), defense (Naval Support Activity Panama City, Tyndall AFB, and the U.S. Coast Guard Station Panama City), and industry (paper mills and shipbuilding) (DPC 2025; Florida Smart 2025). Bay and Gulf counties are also seeing an extensive amount of post-Hurricane Michael revitalization, with millions invested for rebuilding health care facilities, housing, infrastructure, and recreational facilities (Cobb 2022; Neely 2022).

The MSA's population increased from 189,405 in 2020 to 215,594 in 2024, an increase of almost 14 percent (26,189 people). During the same period, Florida's population increased by about 9 percent and the U.S. population increased by about 3 percent (USCB 2025a).

The MSA's 2024 labor force was 99,315, which included 96,044 people employed and 3,271 unemployed. The labor force increased by about 12 percent (10,600 people) between 2020 and 2024. During the same period, Florida's labor force increased by almost 11 percent and the U.S. labor force increased by about 5 percent. The annual unemployment rate in 2024 for the MSA was 3.3 percent, 3.4 percent for Florida, and 4.0 percent for the United States (BLS 2025).

In 2023, the MSA's top five industries on the basis of employment by industry were educational services and health care and social assistance; retail trade; arts, entertainment, and recreation, and accommodation and food services; professional, scientific, and management, and administrative and waste management services; and construction (USCB 2023a). The construction sector grew substantially post-Hurricane Michael. About 6,200 people in the MSA were employed in construction in 2018, but that increased by 44 percent to 8,937 in 2023 (USCB 2018, 2023a).

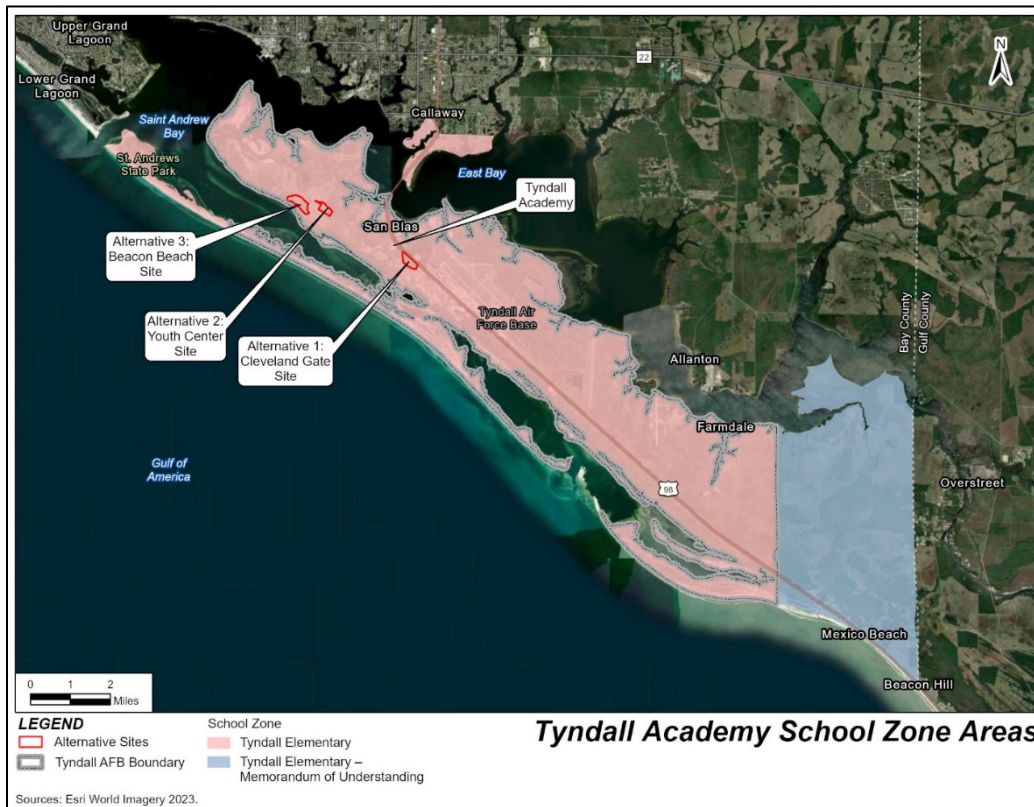
Tyndall AFB is one of the largest employers in the region, directly employing 5,185 military and civilian personnel. It had a fiscal year 2024 economic impact on the region of \$1.298 billion. The base made substantial expenditures to recover from Hurricane Michael, investing \$879 million in Military Construction projects since fiscal year 2021 and an additional \$73 million in funding for Facilities, Sustainment, Restoration, and Maintenance projects (Tyndall AFB 2025b).

The MSA's total personal income (TPI) was about \$10.7 billion in 2023, a 23 percent increase from 2020. Florida's TPI increased by 27 percent and the U.S. TPI increased by 19 percent during the same period. MSA per capita personal income (PCPI) was lower than that of the state's and the nation's PCPI. The MSA's 2023 PCPI of \$56,070 was 82 percent of the state PCPI of \$68,703 and 80 percent of the national PCPI of \$69,810 (BEA 2025).

Tyndall AFB family housing is privatized and maintained and managed by Tyndall AFB Homes. Base family housing is available for lease to active-duty DAF families assigned to Tyndall AFB. Tyndall AFB Homes is currently undergoing a complete community restoration effort post-Hurricane Michael and will consist of five neighborhoods once construction is complete (BBC 2025; DAF 2025d).

Off-base, the MSA had an estimated 115,351 housing units as of 2023 (USCB 2023b). About 71 percent of the off-base housing units (81,918) were occupied and 29 percent (33,433) were vacant (USCB 2023b). Of the vacant units, 10 percent (3,501) were for rent and 3 percent (1,103) were for sale. Bay and Gulf counties are reported to have a shortage of more affordable, workforce housing, with shortages of apartments regardless of income level, and the shortage is larger for lower income households (FAA 2025a, 2025b).

Children living on-base and in off-base communities just northeast of the base in southern Panama City and just southeast of the base in Mexico Beach are zoned by BDS to attend Tyndall Academy and Rutherford High School (Figure 3.13-1). As of the 2023–2024 school year, Bay County had 24 schools with a student enrollment of 27,675 (NCES 2024). Gulf County had seven schools with a student enrollment of 1,915 (NCES 2024).



**Figure 3.13-1. Tyndall Academy School Attendance Zone Areas.**

Tyndall AFB provides the typical commercial, health and safety, recreational, and other support services to its DAF military and civilian personnel and their families. Health care is available on-base only for active-duty Airmen. Panama City has two hospitals—Ascension Sacred Heart Bay Hospital about 9 miles north of the base and HCA Florida Gulf Coast Hospital about 12 miles north of the base. The base has its own fire department and security services.

### 3.13.2 Environmental Consequences

#### 3.13.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short- and long-term beneficial effects would be expected. Short-term beneficial economic effects would result from construction employment and expenditures. The long-term beneficial effects would be expected from quality-of-life improvements from the new school.

**Construction.** The expenditures and employment associated with the construction of the new Tyndall Academy would increase MSA employment, income, and business sales. Construction activities would generate jobs during the construction period, contribute to local earnings and induced spending, and contribute to local purchasing of goods and services. The DAF would likely hire local contractors from the region to perform the work. Because of the short-term nature of construction projects and the shortage of workforce housing in the MSA, workers would be expected to commute from their homes to the jobsite, so no effects would be expected on population or demand for housing, schools, or other public services. The economic benefits would be short term, lasting for the duration of the construction period.

**Operations.** In the long term, the overall quality of life for the students, faculty, and staff of Tyndall Academy would be improved by a new school with modern educational and recreational facilities and sufficient capacity to accommodate the student population. No effects would be expected on MSA employment, income, industry, or population level because operation of the new school would not result in a change in base or school personnel. There would be no change in demand for housing on- or off-base. No effects would be expected on Tyndall AFB commercial, health and safety, recreational, or other support services for base military and civilian personnel and their families. The DAF would continue to provide these services in the same manner as they have in the past.

#### **3.13.2.2 Proposed Action Alternative 2: Youth Center Site**

The same short- and long-term beneficial effects would be expected under Alternative 2, as expected under Alternative 1. The short-term effects would result from the jobs, earnings, and business spending generated from construction of the school, and the long-term effects would result in an improving quality of life for students, faculty, and staff by operating a new school with modern educational and recreational facilities and sufficient capacity to accommodate the student population.

#### **3.13.2.3 Proposed Action Alternative 3: Beacon Beach Site**

The same short- and long-term beneficial effects would be expected under Alternative 3, as expected under Alternative 1. The short-term effects would result from the jobs, earnings, and business spending generated from construction of the school, and the long-term effects would result in an improving quality of life for students, faculty, and staff created by operating a new school with modern educational and recreational facilities and sufficient capacity to accommodate the student population.

#### **3.13.2.4 No Action Alternative**

No short-term effects would occur under the No Action Alternative. Long-term effects could be expected if students would be relocated to off-base BDS schools. Depending on the capacity of those schools, modular units might be needed as a temporary solution to accommodate the students. Long-term adverse effects could occur for the students from potentially longer commutes to school, or attending a school without sufficient student capacity.

#### **3.13.2.5 Combined Effects with Other Actions**

Beneficial combined socioeconomic effects would be expected. Development projects on-base and in the MSA would each contribute to the economy of the region. The Proposed Action along with other regional economic development projects would have beneficial combined effects on the local economy by increasing employment, income, and business sales as well as on the quality of life for residents.

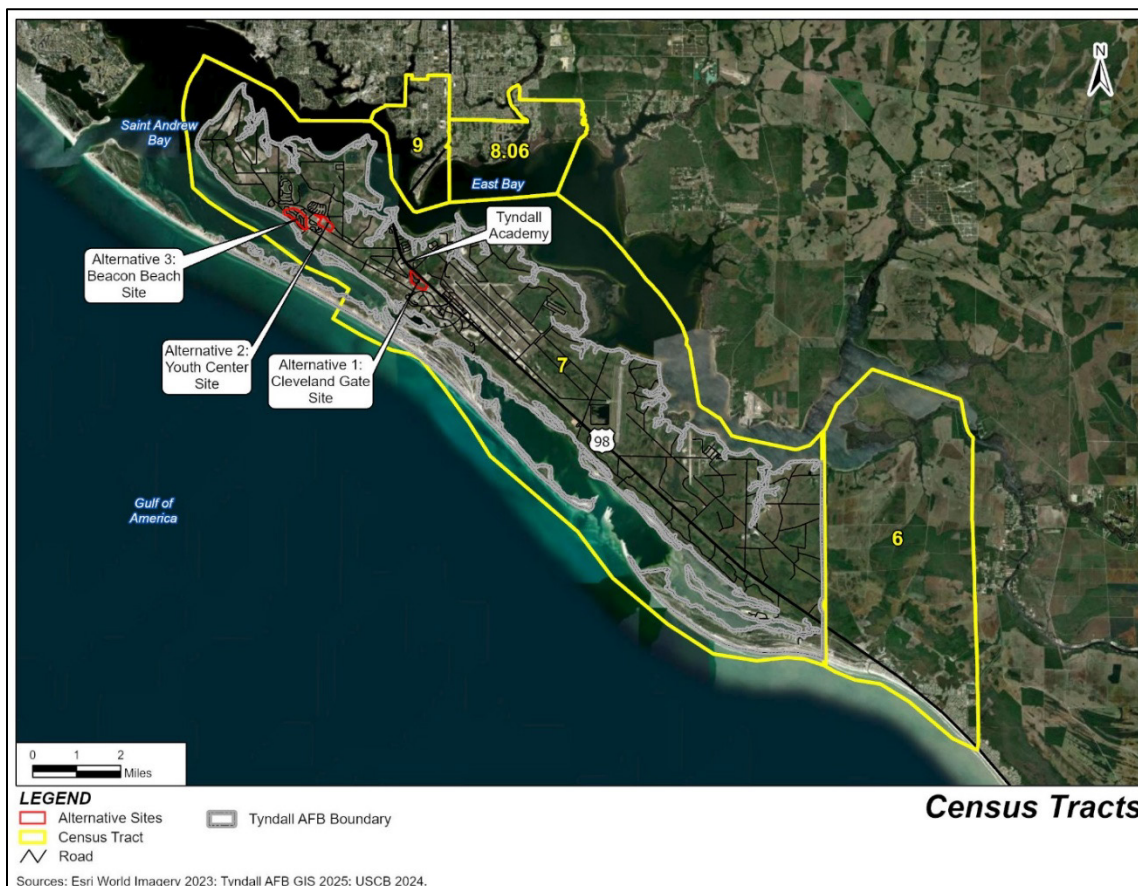
#### **3.13.2.6 Mitigation**

No mitigation measures or BMPs would be required for socioeconomics.

### **3.14 Protection of Children**

Tyndall AFB and the immediate surrounding communities that are zoned by BDS to attend the Tyndall Academy are the ROI for protection of children (Figure 3.13-1). This includes census tracts 6, 7, 8.06, and 9 (Figure 3.14-1). A census tract, which is a subdivision of a county, is

generally defined to contain about 4,000 people and 1,600 housing units (USCB 2025b). Protection of children would be significantly affected if implementing an alternative would result in disproportionately high and adverse environmental health or safety risks to an identified population of children, such as the increase in a child’s risk of exposure to an environmental hazard (through contact, ingestion, or inhalation) or the risk of potential substantial harm to the safety of children.



**Figure 3.14-1. Census Tracts in the ROI for Protection of Children.**

### 3.14.1 Affected Environment

EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, seeks to protect children from disproportionately incurring environmental health or safety risks that might arise as a result of federal policies, programs, activities, or standards. The DAF takes precautions for child safety at the base through using fencing and signage, limiting access to certain areas, and requiring adult supervision. The base perimeter is secured by a fence with base access limited to the controlled entry gates.

Data from the U.S. Census Bureau shows that children make up almost 9 percent of the population of census tract 7, which equates to the boundaries of Tyndall AFB (Table 3.14-1). This is a lower percentage than that of the MSA, the state, and the nation and of two of the other tracts—8.06 and 9—which all have child populations of around 20 percent. Tract 6 is similar to tract 7, with children accounting for 9.5 percent of the total population.

The existing Tyndall Academy is directly accessible from U.S. Hwy 98. The school property is fenced so the school faculty, staff, students, and visitors do not have access to the rest of the base. Tyndall Academy is almost 75 years old, and the building does not meet current FBC or SREF criteria. The school also is in an AICUZ noise zone contour of 65–75 dB DNL, in which the DAF recommends outdoor-to-indoor NLR measures for an educational land use (DAF 2017; USAF 2023a). The school is outside the Tyndall AFB runway CZ and APZs (USAF 2023a).

The Alternative 1 site is not near any housing areas or facilities where children typically are present. It is within AICUZ noise zone contours of 70–74 dB DNL and more than 75 dB DNL, which the DAF considers not to be compatible with an educational land use (Figure 3.2-2) (DAF 2017; USAF 2023a). As environmental conditions like air pressure and temperature can fluctuate, noise contours are not fixed boundaries. When proposed development falls within multiple noise contours, DoDI 4165.57 states that the guidelines for the highest noise zone should be applied to the entire parcel. The Alternative 2 and 3 sites are near base housing and recreational facilities. They are within an AICUZ noise zone contour of less than 65 dB DNL, which is considered compatible with educational land use (DAF 2017; USAF 2023a). All three alternatives are outside the Tyndall AFB runway CZ and APZs (USAF 2023a).

**Table 3.14-1. People Under 18 Years of Age**

<b>Location</b>	<b>Total Population (2023)</b>	<b>Number of People Under Age 18</b>	<b>Percent of People Under Age 18</b>
United States	332,387,540	73,645,238	22.2%
Florida	21,928,881	4,305,366	19.6%
Bay County	181,368	38,149	21.0%
Gulf County	14,772	2,189	14.8%
MSA	196,140	40,338	20.6%
Census Tract 6	1,033	98	9.5%
Census Tract 7 <sup>a</sup>	379	33	8.7%
Census Tract 8.06	3,565	762	21.4%
Census Tract 9	4,328	856	19.8%

Sources: USCB 2023c

Note:

<sup>a</sup> This census tract equates to Tyndall AFB.

### 3.14.2 Environmental Consequences

#### 3.14.2.1 Proposed Action Alternative 1: Cleveland Gate Site

Short-term, less-than-significant adverse effects; long-term, negligible adverse effects; long-term, significant-but-mitigable adverse; and long-term beneficial effects would be expected. The short-term effects would be from soil disturbance during construction. The long-term, negligible adverse effects would be from the proximity to the airfield CZ and APZs. The long-term adverse effects would be expected because of noise levels at the Alternative 1 site. The beneficial effects would be expected from having a new school.

**Construction.** A report on 2025 soil and groundwater screening-level sampling identified several COCs at or above applicable screening criteria (Cypress Environmental 2025). Based on those findings, a formal site investigation is planned to confirm the presence of the COCs and, if warranted, determine the nature and extent of contamination. Following confirmation, a formal

human health and ecological risk assessment is recommended to evaluate potential exposure pathways, characterize risks, and guide the need for remedial actions or risk management strategies. The DAF would be responsible for remediating contaminated sites on base in accordance with CERCLA (see Section 3.9.2.1). The construction site is not near housing or other areas where children typically are present. BMP safety measures would be implemented to protect the health and safety of children and the general population of Tyndall AFB, including fencing the construction site; placing “No Trespassing” signs around the construction site; and securing construction vehicles and equipment when not in use. Applicable federal safety regulations, such as 29 CFR Part 1926, *Safety and Health Regulations for Construction*, and state safety measures and health regulations would be followed to protect the health and safety of workers and base residents.

**Operations.** Long-term, significant adverse effects would be expected from aircraft-related noise; however, mitigation measures would be implemented to reduce noise inside the school building, as described in Section 3.4.2.6. The measures include flight track realignment, siting the school building on the northern portion of the parcel outside the 75 dB DNL noise contour, excluding the portion of the parcel located within 600 ft of the site’s southeastern boundary, and implementing architectural-acoustical design measures in the building envelope to achieve a 30-dB NLR. It is noted that the noise contours would still shift with environmental changes and, therefore, at times, the school site would fall within the 75 dB DNL noise contour. It also is noted that the mitigation measures would not reduce noise for outdoor educational and recreational activities, potentially hindering instruction during critical moments.

For safety relating to how close the Alternative 1 site is to the airfield, while the probability of an accident affecting the school cannot be considered absolutely zero, it is sufficiently low to be regarded as minimal or near negligible in terms of potential harm based on the CZ and APZs.

Long-term beneficial effects would be expected from the operation of a new school with modern educational and recreational facilities and with sufficient capacity to accommodate the student population. The school would have a security fence around the perimeter of the campus and students would be limited to school grounds for their protection and for operational security. Drop-off and pickup points for children arriving by bus and car would have designated lanes and would be located away from the street. To eliminate children’s potential exposure to hazardous materials in the school buildings, new construction would not use building products containing hazardous materials. The school building and facilities would comply with FBC and SREF.

### 3.14.2.2 Proposed Action Alternative 2: Youth Center Site

Short-term, less-than-significant adverse effects and long-term beneficial effects on the protection of children would be expected. The adverse effects would be expected because of construction activity. The beneficial effects would be expected from having a new school.

**Construction.** The Alternative 2 site is near base housing and recreational facilities, where children would be present. In the short term, because construction sites can be enticing to children, construction activity could be an increased safety risk. BMPs would be implemented. The site would be fenced, and “No Trespassing” signs would be placed around the construction site to deter children from entering in the area, and construction vehicles and equipment would be secured when not in use. Applicable federal safety regulations, such as 29 CFR Part 1926, *Safety and Health Regulations for Construction*, and state safety measures and health regulations would be followed to protect the health and safety of workers and base residents.

**Operations.** The new school would provide modern educational and recreational facilities and have sufficient capacity to accommodate the student population. A security fence would be placed around the perimeter of the school campus and students would be limited to school grounds for their protection and for operational security. Drop-off and pickup points for children arriving by bus and car would have designated lanes and would be located away from the street. Alternative 2 would be outside the 65 dB DNL noise contour in an area with baseline noise levels that would be compatible with a school. The school building and facilities would comply with FBC and SREF.

### **3.14.2.3 Proposed Action Alternative 3: Beacon Beach Site**

The same short-term, less-than-significant adverse effects and long-term beneficial effects on the protection of children would be expected under Alternative 3 as under Alternative 2, but long-term, less-than-significant adverse effects also would be expected. The short-term effects would be due to the site being near base housing and recreational facilities, which could cause a safety risk to nearby children during construction, and the long-term beneficial effects would be due to the new school providing modern educational and recreational facilities and having sufficient capacity to accommodate the student population. The long-term, less-than-significant adverse effects would be the result of the site's proximity to the beach and Saint Andrew Bay; however, a security fence would be placed around the perimeter of the school campus and students would be limited to school grounds for their safety and for operational security.

### **3.14.2.4 No Action Alternative**

Long-term, less-than-significant adverse effects would be expected on quality of life under the No Action Alternative. The benefit of a new school would not be realized.

### **3.14.2.5 Combined Effects with Other Actions**

Construction activities for the Proposed Action, combined with other projects occurring simultaneously on Tyndall AFB, could pose less-than-significant safety risks to children. BMP safety measures would be implemented across all construction projects, however, to protect the health and safety of children and the general population at Tyndall AFB.

### **3.14.2.6 Mitigation**

BDS and Tyndall AFB would implement the following mitigation measures, detailed in Section 3.4.2.6, to address the significant noise levels at the Alternative 1 site:

- Flight track realignment.
- Siting the school building on the northern portion of the parcel outside the 75 dB DNL noise contour.
- Excluding the portion of the parcel located within 600 ft of the site's southeastern boundary.
- Implementing architectural-acoustical design measures in the building envelope to achieve a 30-dB NLR.

BMPs are provided in Appendix E.

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- Walters, Leon, Executive Director of Facilities, Bay District Schools. 2025b, June 4. Personal communication via email to Suni Shrestha with Tetra Tech regarding construction vehicle access to Cleveland Gate Site.
- Walters, Leon, Executive Director of Facilities, Bay District Schools. 2025c, August 25. Personal communication via email to Michelle Cannella with Tetra Tech confirming that the Florida Building Code Flood Resistant Provisions do apply to BDS, that the school building would be a minimum of 12 inches above the base flood elevation, and that the school would not be an Enhanced Hurricane Protection Area shelter.
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## **APPENDIX A: ACRONYMS AND ABBREVIATIONS**

**Table A-1. Acronyms and Abbreviations**

<b>Acronym or Abbreviation</b>	<b>Term</b>
325 CES	325th Civil Engineer Squadron
325 FW	325th Fighter Wing
ACAM	Air Conformity Applicability Model
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing materials
ADA	Americans with Disabilities Act
AFB	Air Force base
AGL	above ground level
AICUZ	air installations compatible use zone
AMSL	above mean sea level
APE	area of potential effects
APZ	accident potential zone
ARPA	Archaeological Resources Protection Act
AST	aboveground storage tank
BAI	Backup Aerospace Vehicle Inventory
BASH	bird/wildlife aircraft strike hazard
BDS	Bay District Schools
BGEPA	Bald and Golden Eagle Protection Act
bgs	below ground surface
BMP	best management practice
BOS	Base Operating Support
C&D	construction and demolition
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CGP	Construction Generic Permit
CH <sub>4</sub>	methane
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
COC	contaminant of concern
CRIP	Coastal Resilience Implementation Plan
CY	cubic yards
CZ	clear zone
DAF	Department of the Air Force
DAFH	Department of the Air Force handbook
DAFI	Department of the Air Force instruction
DAFMAN	Department of the Air Force manual
dB	decibels
dBA	A-weighted decibels
DFE	design flood elevation
DNL	day-night average sound level
DoD	Department of Defense
DoDI	Department of Defense Instruction
E	endangered
EA	environmental assessment
EO	executive order

<b>Acronym or Abbreviation</b>	<b>Term</b>
ERP	Environmental Restoration Program
ESA	Endangered Species Act
F.A.C.	Florida Administrative Code
FBC	Florida Building Code
FCMP	Florida Coastal Management Program
FDEP	Florida Department of Environmental Protection
FDHR	Florida Division of Historical Resources
FDOT	Florida Department of Transportation
FMSF	Florida Master Site File
FONSI	finding of no significant impact
FSC	Florida State Clearinghouse
ft	foot, feet
GCEC	Gulf Coast Electric Cooperative
GCR	General Conformity rule
GCTL	Groundwater Cleanup Target Level
GDP	gross domestic product
GHG	greenhouse gas
GIS	geographic information system
HAP	hazardous air pollutant
HASP	health and safety plan
HDPE	high-density polyethylene
HP	horsepower
HWMP	hazardous waste management plan
Hwy	highway
ICRMP	Integrated Cultural Resources Management Plan
ID	identification
IDP	Installation Development Plan
K–8	kindergarten through grade 8
km	kilometers
kV	kilovolt
LBP	lead-based paint
LF	linear feet
$L_{max}$	Maximum Sound Level
mg/kg	milligrams per kilogram
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
MSA	Metropolitan Statistical Area
MWR	Morale, Welfare, and Recreation
$\text{N}_2\text{O}$	nitrous oxide
NA	number above
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
$\text{NAL}_{max}$	number of events above the $L_{max}$
NE	northeast
NEPA	National Environmental Policy Act
$\text{NH}_3$	ammonia
NHPA	National Historic Preservation Act
NLR	noise level reduction
NM	nautical mile
$\text{NO}_2$	nitrogen dioxide

<b>Acronym or Abbreviation</b>	<b>Term</b>
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NW	northwest
O <sub>3</sub>	ozone
OSHA	Occupational Safety and Health Administration
PAA	Primary Aerospace Vehicle Authorized
Pb	lead
PCB	polychlorinated biphenyl
PCPI	per capita personal income
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctanesulfonic acid
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 microns in diameter
PM <sub>10</sub>	particulate matter less than or equal to 10 microns in diameter
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
ROI	region of influence
S	secure
S/A	protected because of similarity of appearance with another species that is listed as endangered
SCTL	Soil Cleanup Target Level
SE	southeast
SF	square foot, square feet
SHPO	State Historic Preservation Officer
SO <sub>2</sub>	sulfur dioxide
SOP	standard operating procedure
SO <sub>x</sub>	sulfur oxides
SPCC	spill prevention, control, and countermeasures
SREF	State Requirements for Educational Facilities
SVOC	semi-volatile organic compound
SW	southwest
T	threatened
TA	time above
TAL <sub>max</sub>	time above a L <sub>max</sub> threshold
TPI	total personal income
tpy	tons per year
TSDF	treatment, storage, and disposal facility
U.S.	United States (adjective only)
U.S.C.	United States Code
UFC	Unified Facilities Criteria
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound
WTF	water treatment facility
WWTP	wastewater treatment plant

## **APPENDIX B: LIST OF PREPARERS**

**Table B-1. List of Preparers**

<b>Name</b>	<b>Affiliation</b>	<b>Role</b>
Donna Barber	DAF, 325 CES/CEIEC, Tyndall AFB	Installation Management Flight Chief, EA support
Edwin Wallace	DAF, 325 CES/CEIEC, Tyndall AFB	NEPA Program Manager, EA reviewer/approver
R.J. Plank	BDS	Reviewer
Leon Walters	BDS	Reviewer
Bethany Womack	Cypress Environmental (contractor to BDS)	Reviewer
Kristy Broska-Cody	Tetra Tech	Noise
Michelle Cannella	Tetra Tech	Deputy Project Manager, land use, protection of children, socioeconomics
Dewey Cooper	Tetra Tech	Air quality, hazardous materials and wastes, safety and health, utilities
Penelope Garver	Tetra Tech	Technical editing, quality assurance
Dave Giddens	Tetra Tech	Professional Geologist/ Environmental Division Manager
Ewan Gomes	Tetra Tech	Noise
Jennifer Jarvis	Tetra Tech	Geographic information systems
Tim Lavalley, PE	LPES, Inc.	Airspace and airfield operations, noise
Anna Nelson	Tetra Tech	Geology and soils, land use, project management support
Sam Pett	Tetra Tech	Biological resources, quality control, traffic and transportation, water resources
Kristin Shields	Tetra Tech	Program Manager
Suni Shrestha	Tetra Tech	Project Manager
Erica Smythe	Tetra Tech	Cultural resources
Rebecca Webster	Tetra Tech	Cultural resources

**APPENDIX C: INTERAGENCY AND INTERGOVERNMENTAL  
COORDINATION FOR ENVIRONMENTAL PLANNING  
LETTERS AND RESPONSES**

Table C-1 lists the agencies and federally recognized Native American tribes contacted by the DAF regarding the Proposed Action. Letters were sent in February 2024 and again in late April–early May 2025 because of the addition of an alternative site. This appendix provides copies of the letters sent to the agencies and tribes. The letters are sorted by date sent, with the 2024 letters presented first. The figures attached to the letters are included only for the first letter. Responses received follow the letter sent.

**Table C-1. Agency and Tribe Contact List and Response Summary**

<b>Agency or Tribe</b>	<b>Name</b>	<b>Title</b>	<b>Address</b>	<b>Response</b>
Florida Department of Environmental Protection, Florida State Clearinghouse	Mr. Chris Stahl	Coordinator, Office of Intergovernmental Programs	3900 Commonwealth Boulevard Mail Station 47 Tallahassee, FL 32399	2024: No objections, but Environmental Resource Permit Program Individual Permit may be required for surface water, stormwater, or wetlands. 2025: No objection; contact Florida Division of Historical Resources in case of an inadvertent cultural resource discovery; obtain required permits; and the state's final concurrence on the project's consistency with the Florida Coastal Management Program would be determined during the environmental permitting process.
Florida Division of Historical Resources (State Historic Preservation Office)	Ms. Alissa Slade Lotane	Director	R.A. Gray Building Room 305 500 S. Bronough Street Tallahassee, FL 32399	2024: No response. 2025: No response.
Florida Fish and Wildlife Conservation Commission	Mr. Bryan Phillips	Conservation Planning Services	3911 Highway 2321 Panama City, FL 32409	2024: No response. 2025: No response.
USFWS	2024: Ms. Catrina Martin 2025: Mr. Robert Carey	Supervisor, Environmental Review Division Manager, Environmental Review and Consultation	1601 Balboa Avenue Panama City, FL 32405	2024: No response. 2025: No concerns over listed species.
Micosukee Tribe of Indians of Florida	Mr. Tolbert (Billy) Cypress	Chairman	Tamiami Station P.O. Box 440021 Miami, FL 33144	2024: No response. 2025: No response.
Muscogee (Creek) Nation	Mr. David Hill	Principal Chief	P.O. Box 580 Okmulgee, OK 74447	2024: No historic properties would be affected, but requested stop work and immediate contact in case of inadvertent discoveries. 2025: Requested additional information, which Tyndall AFB provided. No further response.

<b>Agency or Tribe</b>	<b>Name</b>	<b>Title</b>	<b>Address</b>	<b>Response</b>
Poarch Band of Creek Indians	Ms. Stephanie A. Bryan	Chairwoman	5811 Jack Springs Road Atmore, AL 36502	2024: No response. 2025: No response.
Seminole Nation of Oklahoma	Mr. Lewis J. Johnson	Principal Chief	P.O. Box 1498 Wewoka, OK 74884	2024: No response. 2025: No objection, but contact in case of inadvertent discoveries.
Seminole Tribe of Florida	Mr. Marcellus W. Osceola, Jr.	Chairman	6300 Stirling Road Hollywood, FL 33024	2024: Project is not within the tribe's area of interest. No objection, but contact in case of inadvertent discoveries. 2025: Project is within the tribe's area of interest. After reviewing requested additional information, had no objections, but contact in case of inadvertent discoveries.
Thlopthlocco Tribal Town	Mr. Ryan Morrow	Town King	P.O. Box 188 Okemah, OK 74859	2024: No response. 2025: No response.

## Letters Sent February 2024



**DEPARTMENT OF THE AIR FORCE**  
**325<sup>TH</sup> CIVIL ENGINEER SQUADRON (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

Mr. José J. Cintron  
Chief, Environmental Element  
325th Civil Engineer Squadron  
103 Mississippi Road  
Tyndall AFB FL 32403-5014

Mr. Chris Stahl, Coordinator  
Office of Intergovernmental Programs  
Department of Environmental Protection  
3900 Commonwealth Blvd, Mail Station 47  
Tallahassee FL 32399

Dear Mr. Stahl

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

The Proposed Action is needed because the existing facility is undersized and unable to be expanded in its current location due to the lack of suitable developable space for the facility, as a result of environmental hazards that exist on the current school site that prevents reconstruction or additional construction on the current site. Without new facilities that meet applicable size, safety, and mission requirements, the existing facility will be forced to close and be relocated off base.

The Proposed locations for the K-8 Educational Facility are shown on Figures 2 and 3 (Youth Center and the Beacon Beach sites). These locations are within the installation property and provide the area needed to serve the current and future influx of students related to the expanded F-35 mission at Tyndall AFB.

The proposed Action includes the construction of K-8 Educational Facility (approximately 253,000 square feet) with an Administration Office, Media Space, Cafetorium, Gymnasium, Classrooms and Laboratory for approximately 1,200 students. The Site will be strategically fenced to allow direct public access to the after-hours event spaces in the Cafeteria

and Gym but keeps the rest of the campus secure from unwarranted visitors. The site would be cleared and graded for construction and stormwater drainage (approximately 40 acres total).

During the EA process, the Air Force will determine whether the Proposed Action would have adverse impacts on coastal resources protected under the state of Florida's Coastal Zone Management Program.

The Air Force respectfully requests your written comments and other input on the Proposed Action within 30 days of receipt of this letter so they can be considered during preparation of the draft EA and Coastal Consistency Determination. When completed, the draft EA will also be submitted to the State Clearinghouse for review and comment. If you have any questions or require additional information, please contact Tyndall AFB's Point of Contact, Mr. Edwin Wallace, via email at [REDACTED], or via telephone at (850) 283-2714.

Sincerely

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JOSÉ CINTRON, GS-13, DAF

3 Attachments:

1. Figure 1 - Location of Tyndall AFB
2. Figure 2 - Locations of Youth Center Site
3. Figure 3 - Locations of Beacon Beach Site

Sent via email to: [REDACTED]



Figure 1. Location of Tyndall Air Force Base



Figure 2 - Locations of Youth Center Site

BAY DISTRICT SCHOOLS  
**NEW PRE-K-8TH GRADE ELEMENTARY SCHOOL**  
 PANAMA CITY BEACH, FLORIDA

PHASE II

Clemons, Rutherford, & Associates, Inc.  
 Architects  
 Planners  
 Interior Designers  
 Construction Managers  
 2077 Thonerville Road  
 Tallahassee, Florida 32308  
 phone 850-383-0133  
 fax 850-386-8420  
 cr@clemonsra.com

The Design, Drafting and other documents prepared by Clemons, Rutherford, & Associates, Inc. are the property of Clemons, Rutherford, & Associates, Inc. and shall remain the property of Clemons, Rutherford, & Associates, Inc. No part of these documents may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Clemons, Rutherford, & Associates, Inc. This document is intended for the use of the client and is not to be distributed to other parties. For additional information on the project or the company, please contact Clemons, Rutherford, & Associates, Inc. at the address above.

Submittal				
Phase	Drawn	Checked	By	CR

Revision		
#	Description	Date

CRA Project # 17043  
 Phase: SCHEMATIC DOCUMENTS

Architectural Site Plan  
 SCHEME 2

AS1.0



**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** State Clearance Letter for FL202402230028C- Environmental Assessment To Construct a K Thru 8 Educational Facility At Tyndall Air Force Base (AFB), Bay County, Florida  
**Date:** Monday, April 22, 2024 12:37:39 PM

---

April 22, 2024

Bethany Womack  
Cypress Environmental  
2352 Lisenby Avenue  
Panama City, Florida 32405

RE: Department of Defense, Department of the Air Force, Environmental Assessment to Construct a K Thru 8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida  
SAI # FL202402230028C

Dear Bethany:

Florida State Clearinghouse staff has reviewed the proposal under the following authorities: Presidential Executive Order 12372; § 403.061(42), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

According to the supplied drawings and narrative, an Environmental Resource Permit may be required if construction will take place in wetlands or surface waters. A stormwater Individual ERP permit may be required, per 62-330.020, F.A.C., if the proposed project includes the addition of more than 4,000 sq. ft. of impervious surface subject to vehicular activity or 9,000 sq. ft. total. This includes areas where existing impervious surfaces are removed to bare earth and replaced. For any future guidance for this project, please contact the Department.

Based on the information submitted and minimal project impacts, the state has no objections to the subject project and, therefore, it is consistent with the Florida Coastal Management Program (FCMP). Thank you for the opportunity to review the proposed plan. If you have any questions or need further assistance, please don't hesitate to contact me at (850) 717-9076.

Sincerely,

*Chris Stahl*

Chris Stahl, Coordinator  
Florida State Clearinghouse

Florida Department of Environmental Protection  
3900 Commonwealth Blvd., M.S. 47  
Tallahassee, FL 32399-2400  
ph. (850) 717-9076





**DEPARTMENT OF THE AIR FORCE**  
**325<sup>TH</sup> CIVIL ENGINEER SQUADRON (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

Mr. José J. Cintron  
Chief, Environmental Element  
325th Civil Engineer Squadron  
103 Mississippi Road  
Tyndall AFB FL 32403-5014

Ms. Alissa Slade Lotane, Director  
Florida Division of Historical Resources  
R.A. Gray Building, Room 305  
500 South Bronough St  
Tallahassee FL 32399-0250

Dear Ms. Lotane

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

The Proposed Action is needed because the existing facility is undersized and unable to be expanded in its current location due to the lack of suitable developable space for the facility, as a result of environmental hazards that exist on the current school site that prevents reconstruction or additional construction on the current site. Without new facilities that meet applicable size, safety, and mission requirements, the existing facility will be forced to close and be relocated off base.

The Proposed locations for the K-8 Educational Facility are shown on Figures 2 and 3 (Youth Center and the Beacon Beach sites). These locations are within the installation property and provide the area needed to serve the current and future influx of students related to the expanded F-35 mission at Tyndall AFB.

The proposed Action includes the construction of K-8 Educational Facility (approximately 253,000 square feet) with an Administration Office, Media Space, Cafetorium, Gymnasium, Classrooms and Laboratory for approximately 1,200 students. The Site will be strategically fenced to allow direct public access to the after-hours event spaces in the Cafeteria and Gym but keeps the rest of the campus secure from unwarranted visitors. The site would be cleared and graded for construction and stormwater drainage (approximately 40 acres total).

During the EA process, the Air Force will determine whether the Proposed Action would have adverse impacts on historic properties including archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Separate consultation pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations at 36 CFR 800.2(c)(2)(ii) will be initiated at a later date.

The Air Force respectfully requests your written comments and other input on the Proposed Action within 30 days of receipt of this letter so they can be considered during preparation of the draft EA and Coastal Consistency Determination. When completed, the draft EA will also be submitted to your office for review and comment. If you have any questions or require additional information, please contact Tyndall AFB's Point of Contact, Mr. Edwin Wallace, via email at [REDACTED], or via telephone at (850) 283-2714.

Sincerely

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JOSÉ CINTRON, GS-13, DAF

3 Attachments:

1. Figure 1 - Location of Tyndall Air Force Base
2. Figure 2 - Locations of Youth Center Site
3. Figure 3 - Locations of Beacon Beach Site

Sent via email to: [REDACTED]



**DEPARTMENT OF THE AIR FORCE  
325<sup>TH</sup> CIVIL ENGINEER SQUADRON (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Mr. José J. Cintron  
Chief, Environmental Element  
325th Civil Engineer Squadron  
103 Mississippi Road  
Tyndall AFB FL 32403-5014

Mr. Bryan Phillips  
Conservation Planning Services  
Florida Fish and Wildlife Conservation Commission  
391 Hwy 2321  
Panama City FL 32409-1658

Dear Mr. Phillips

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

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During the EA process, the Air Force will determine whether the Proposed Action would have adverse impacts on any fish or wildlife resources regulated by the Florida Fish and Wildlife Conservation Commission (FWC).

The Air Force respectfully requests your written comments and other input on the Proposed Action within 30 days of receipt of this letter so they can be considered during preparation of the draft EA and Coastal Consistency Determination. When completed, the draft EA will also be submitted to the FWC for review and comment. If you have any questions or require additional information, please contact Tyndall AFB's Point of Contact, Mr. Edwin Wallace, via email at [REDACTED], or via telephone at (850) 283-2714.

Sincerely

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JOSÉ CINTRON, GS-13, DAF

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Sent via email to: [REDACTED]



**DEPARTMENT OF THE AIR FORCE**  
**325<sup>TH</sup> CIVIL ENGINEER SQUADRON (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

Mr. José J. Cintron  
Chief, Environmental Element  
325th Civil Engineer Squadron  
103 Mississippi Road  
Tyndall AFB FL 32403-5014

Ms. Catrina Martin  
Supervisor, Environmental Review  
U.S. Fish and Wildlife Service  
1601 Balboa Ave  
Panama City FL 32405

Dear Ms. Martin

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

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During the EA process, the Air Force will determine whether the Proposed Action would have adverse impacts on any fish or wildlife resources regulated by the U.S. Fish and Wildlife Service.

The Air Force respectfully requests your written comments and other input on the Proposed Action within 30 days of receipt of this letter so they can be considered during preparation of the draft EA and Coastal Consistency Determination. When completed, the draft EA will also be submitted to the U.S. Fish and Wildlife Service for review and comment. If you have any questions or require additional information, please contact Tyndall AFB's Point of Contact, Mr. Edwin Wallace, via email at [REDACTED], or via telephone at (850) 283-2714.

Sincerely

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J.1182275146

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JOSÉ CINTRON, GS-13, DAF

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Sent via email to: [REDACTED]



**DEPARTMENT OF THE AIR FORCE**  
**325TH FIGHTER WING (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

24 January 2024

Colonel George R. Watkins  
Commander  
325th Fighter Wing  
501 Airey Avenue, Suite 1  
Tyndall AFB FL 32403-5549

Billy Cypress, Chairman  
Miccosukee Tribe of Indians of Florida  
Tamiami Station  
PO Box 440021  
Miami FL 33144

Dear Chairman Cypress

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

The Proposed Action is needed because the existing facility is undersized and unable to be expanded in its current location due to the lack of suitable developable space for the facility, as a result of environmental hazards that exist on the current school site that prevents reconstruction or additional construction on the current site. Without new facilities that meet applicable size, safety, and mission requirements, the existing facility will be forced to close and be relocated off base.

The Proposed locations for the K-8 Educational Facility are shown on Figures 2 and 3 (Youth Center and the Beacon Beach sites). These locations are within the installation property and provide the area needed to serve the current and future influx of students related to the expanded F-35 mission at Tyndall AFB.

The proposed Action includes the construction of K-8 Educational Facility (approximately 253,000 square feet) with an Administration Office, Media Space, Cafetorium, Gymnasium, Classrooms and Laboratory for approximately 1,200 students. The Site will be strategically fenced to allow direct public access to the after-hours event spaces in the Cafeteria and Gym but keeps the rest of the campus secure from unwarranted visitors. The site would be cleared and graded for construction and stormwater drainage (approximately 40 acres total).

The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. During the NEPA process, BDS will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Tyndall AFB is not aware of any historic properties of religious or tribal significance located within the project areas. In accordance with Section 106, implementing

regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, the Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. Tyndall AFB is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, Tyndall AFB requests your input in identifying any issues or areas of concern you feel should be addressed in the EA.

Tyndall AFB respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. If you have any questions or require additional information, please contact Tyndall AFB's point of contact, Mr. Edwin Wallace, via email at [REDACTED], or via telephone at (850) 283-2714.

Sincerely

WATKINS.GEOR  
GE.R.1086349333  
GEORGE R. WATKINS, Colonel, USAF  
Commander

Digitally signed by  
WATKINS.GEORGE.R.108634933  
3  
Date: 2024.02.20 16:14:46 -06'00'

3 Attachments:

1. Figure 1 - Location of Tyndall AFB
2. Figure 2 - Locations of Youth Center Site
3. Figure 2 - Locations of Beacon Beach Site

Sent via email to: [REDACTED]



**DEPARTMENT OF THE AIR FORCE**  
**325TH FIGHTER WING (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

24 January 2024

Colonel George R. Watkins  
Commander  
325th Fighter Wing  
501 Airey Avenue, Suite 1  
Tyndall AFB FL 32403-5549

David Hill, Principal Chief  
Muscogee Creek Nation  
PO Box 580  
Okmulgee OK 74447

Dear Principal Chief Hill

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

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The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. During the NEPA process, BDS will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Tyndall AFB is not aware of any historic properties of religious or tribal significance located within the project areas. In accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions*

with *Federally Recognized Tribes*, the Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. Tyndall AFB is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, Tyndall AFB requests your input in identifying any issues or areas of concern you feel should be addressed in the EA.

Tyndall AFB respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. If you have any questions or require additional information, please contact Tyndall AFB's point of contact, Mr. Edwin Wallace, via email at [REDACTED], or via telephone at (850) 283-2714.

Sincerely

WATKINS.GEOR  
GE.R.1086349333  
GEORGE R. WATKINS, Colonel, USAF  
Commander

Digitally signed by  
WATKINS.GEORGE.R.10863493  
33  
Date: 2024.02.20 16:15:32 -06'00'

3 Attachments:

1. Figure 1 - Location of Tyndall Air Force Base
2. Figure 2 - Locations of Youth Center Site
3. Figure 2 - Locations of Beacon Beach Site

Sent via email to: [REDACTED]

**From:** Section106 [REDACTED]  
**Sent:** Monday, March 25, 2024 10:35 AM  
**To:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]  
**Subject:** [Non-DoD Source] Re: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

Good morning Ms. Moss,

Thank you for sending the correspondence regarding the proposed two locations for the construction of a K-8 Educational Facility located at the Tyndall Air Force Base in Bay County, Florida. Bay County is located within the Muscogee (Creek) Nation's historic area of interest and is of importance to us. After review of the two proposed locations, the Muscogee Nation is unaware of any Muscogee sacred sites, burial grounds, or significant cultural resources located within each of the immediate project areas. Both areas look heavily disturbed so the Muscogee Nation finds that **no historic properties** will be affected by the proposed school construction. However, due to the historic presence of Muscogee people in the project area, inadvertent discoveries of cultural resources, human remains and related NAGPRA items may occur, even in areas of existing or prior development. Should this occur, the Muscogee (Creek) Nation requests that all work cease and our office as well as other appropriate agencies be notified immediately. Please feel free to contact me if there are any questions or concerns.

Thank you,

**Robin Soweka, Jr.**

Cultural Resource Specialist, Historic and Cultural Preservation Department

The Muscogee Nation

P.O. Box 580 | Okmulgee, OK 74447

T 918.732.7726 | F 918.758.0649

[REDACTED]

MuscogeeNation.com



---

**From:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]  
**Sent:** Wednesday, February 21, 2024 3:23 PM  
**To:** Section106 [REDACTED]; Turner Hunt  
[REDACTED] >; David Hill [REDACTED]  
**Cc:** CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]; WALLACE, EDWIN  
B CIV USAF ACC 325 CES/CEIEC [REDACTED]; HARRACH HARCOURT, ILARIA CIV  
USAF AFCEC AFCEC/CZOE [REDACTED]  
**Subject:** Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Hunt

On behalf of Tyndall AFB, please accept for review the attached consultation for the proposed undertaking. Any questions may be directed to Mrs. Ilaria Harrach Harcourt at [REDACTED], 850-883-3350 or Mr. Jose Cintron at [REDACTED], 850-283-2713.

Regards,

Jennifer E. Moss-CTR Archaeologist

Jacobs Engineering Group Inc.

325th CES/CEIE|103 Mississippi Ave, Bldg. 36233, Tyndall AFB FL 32403

DSN: 283-2709|Ph: 850-283-2709|C: 973 459 8819

DISCLAIMER: This communication, along with any documents, files or attachments, is intended only for the use of the addressee and may contain legally privileged and confidential information. If you are not the intended recipient, you are hereby notified that any dissemination, distribution or copying of any information contained in or attached to this communication is strictly prohibited. If you have received this message in error, please notify the sender immediately and destroy the original communication and its attachments without reading, printing or saving in any manner. Please consider the environment before printing this e-mail.



**DEPARTMENT OF THE AIR FORCE**  
**325TH FIGHTER WING (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

24 January 2024

Colonel George R. Watkins  
Commander  
325th Fighter Wing  
501 Airey Avenue, Suite 1  
Tyndall AFB FL 32403-5549

Stephanie A. Bryan, Tribal Chair  
Poarch Band of Creek Indians  
5811 Jack Springs Road  
Atmore AL 36502

Dear Tribal Chair Bryan

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the DAF Environmental Impact Analysis Process (32 CFR Part 989).

The Proposed Action is needed because the existing facility is undersized and unable to be expanded in its current location due to the lack of suitable developable space for the facility as a result of environmental hazards that exist on the current school site that prevents reconstruction or additional construction on the current site. Without new facilities that meet applicable size, safety, and mission requirements, the existing facility will be forced to close and be relocated off base.

The Proposed locations for the K-8 Educational Facility are shown on Figures 2 and 3 (Youth Center and the Beacon Beach sites). These locations are within the installation property and provide the area needed to serve the current and future influx of students related to the expanded F-35 mission at Tyndall AFB.

The proposed Action includes the construction of K-8 Educational Facility (approximately 253,000 square feet) with an Administration Office, Media Space, Cafetorium, Gymnasium, Classrooms and Laboratory for approximately 1,200 students. The Site will be strategically fenced to allow direct public access to the after-hours event spaces in the Cafeteria and Gym but keeps the rest of the campus secure from unwarranted visitors. The site would be cleared and graded for construction and stormwater drainage (approximately 40 acres total).

The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. During the NEPA process, the USAF will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. The USAF is not aware of any historic properties of religious or tribal significance located within the project areas on Tyndall AFB. In accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02,

*DoD Interactions with Federally Recognized Tribes*, the USAF is inviting you to participate in government-to-government consultation regarding the proposed undertaking. The USAF is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, the USAF requests your input in identifying any issues or areas of concern you feel should be addressed in the EA.

The USAF respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. If you have any questions or require additional information, please contact Tyndall AFB's point of contact, Mr. Edwin Wallace, via email at [REDACTED], or via telephone at (850) 283-2714.

Sincerely

WATKINS.GEOR  
GE.R.1086349333

Digitally signed by  
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33  
Date: 2024.02.20 16:15:08 -06'00'

GEORGE R. WATKINS, Colonel, USAF  
Commander

3 Attachments:

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Sent via email to: [REDACTED]



**DEPARTMENT OF THE AIR FORCE**  
**325TH FIGHTER WING (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

24 January 2024

Colonel George R. Watkins  
Commander  
325th Fighter Wing  
501 Airey Avenue, Suite 1  
Tyndall AFB FL 32403-5549

Lewis J. Johnson, Principal Chief  
Seminole Nation of Oklahoma  
PO Box 1498  
Wewoka OK 74884

Dear Principal Chief Johnson

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

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Sincerely

WATKINS.GEORG  
E.R.1086349333

Digitally signed by  
WATKINS.GEORGE.R.10863493  
33  
Date: 2024.02.20 16:16:27 -06'00'

GEORGE R. WATKINS, Colonel, USAF  
Commander

3 Attachments:

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Sent via email to: [REDACTED]



**DEPARTMENT OF THE AIR FORCE**  
**325TH FIGHTER WING (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

24 January 2024

Colonel George R. Watkins  
Commander  
325th Fighter Wing  
501 Airey Avenue, Suite 1  
Tyndall AFB FL 32403-5549

Marcellus W. Osceola Jr., Chairman  
Seminole Tribe of Florida  
6300 Stirling Road  
Hollywood FL 33024

Dear Chairman Osceola

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

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Sincerely

WATKINS.GEOR } Digitally signed by  
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3 }  
Date: 2024.02.20 16:15:59 -06'00'

GEORGE R. WATKINS, Colonel, USAF  
Commander

3 Attachments:

1. Figure 1 - Location of Tyndall Air Force Base
2. Figure 2 - Locations of Youth Center Site
3. Figure 2 - Locations of Beacon Beach Site

Sent via email to: [REDACTED]

**From:** Victoria Menchaca [REDACTED]  
**Sent:** Thursday, March 28, 2024 2:03 PM  
**To:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED] CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]  
**Cc:** THPO Compliance [REDACTED]  
**Subject:** [Non-DoD Source] RE: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

SEMINOLE TRIBE OF FLORIDA  
TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC  
PRESERVATION OFFICE  
SEMINOLE TRIBE OF FLORIDA  
30290 JOSIE BILLIE HIGHWAY  
PMB 1004  
CLEWISTON, FL 33440

THPO PHONE: (863) 983-6549  
FAX: (863) 902-1117

THPO WEBSITE: WWW.STOFTHPO.COM



TRIBAL OFFICERS

MARCELLUS W. OSCEOLA JR.  
CHAIRMAN

MITCHELL CYPRESS  
VICE CHAIRMAN

LAVONNE ROSE  
SECRETARY

PETER A. HAHN  
TREASURER

March 28, 2024

Edwin Wallace  
Cultural Resources Program  
Tyndall Air Force Base  
Email: [REDACTED]  
Phone: 850-283-2714

**Subject:** Tyndall AFB - Bay District School EA Scoping Letter, Bay County, Florida  
**THPO Compliance Tracking Number:** 0034295

Dear Edwin Wallace,

Thank you for contacting the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO) Compliance Section regarding the *Tyndall AFB - Bay District School EA Scoping Letter, Bay County, Florida*.

The proposed undertaking does fall within the STOF Area of Interest. We have reviewed the documents and additional information that you have kindly provided and completed our assessment pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) as amended and its implementing regulations (36 CFR 800). We have no objections or other comments at this time. Please notify our office if any archaeological, historical, and/or burial resources are inadvertently discovered during project implementation and feel free to contact us with any questions or concerns. Thank you.

Respectfully,  
Victoria L. Menchaca, MA, Compliance Analyst II  
STOF-THPO, Compliance Review Section  
30290 Josie Billie Hwy, PMB 1004  
Clewiston, FL 33440  
Fax: 863-902-1117  
Email: [REDACTED]

**From:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]  
**Sent:** Tuesday, March 19, 2024 9:25 AM  
**To:** Victoria Menchaca [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]; CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]  
**Subject:** RE: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

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Great, thanks for letting me know! 😊

Let me know if you need anything else.

Regards,

Jennifer E. Moss  
Archaeologist CTR - Jacobs  
325th CES/CEIE|103 Mississippi Ave, Bldg. 36233, Tyndall AFB FL 32403  
DSN: 283-2709|Ph: 850-283-2709|C: 973 459 8819

**From:** Victoria Menchaca [REDACTED]  
**Sent:** Tuesday, March 19, 2024 8:23 AM  
**To:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]; CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]  
**Subject:** [Non-DoD Source] Re: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

Hi,

I it worked! I got it! 😊

Thanks,  
Victoria

---

**From:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]  
**Sent:** Tuesday, March 19, 2024 8:50 AM  
**To:** Victoria Menchaca [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]; CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]  
**Cc:** THPO Compliance [REDACTED]  
**Subject:** RE: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I can try to send it via DoDSafe link which is our FTP site. If that doesn't work, I will separate the document into two files on two emails.

Regards,

Jennifer E. Moss  
Archaeologist CTR - Jacobs  
325th CES/CEIE|103 Mississippi Ave, Bldg. 36233, Tyndall AFB FL 32403  
DSN: 283-2709|Ph: 850-283-2709|C: 973 459 8819

**From:** Victoria Menchaca [REDACTED]  
**Sent:** Tuesday, March 19, 2024 7:48 AM  
**To:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]; CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]  
**Cc:** THPO Compliance [REDACTED]  
**Subject:** [Non-DoD Source] Re: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

Hi,

Unfortunately, the FTP site no longer works 😞. Would you be able to break it up and send across a couple of emails?

Sincerely,  
Victoria L. Menchaca, MA, Compliance Analyst II  
STOF THPO, Compliance Section  
30290 Josie Billie Hwy, PMB 1004  
Clewiston, FL 33440  
Phone: 863-458-8195  
Fax: 863-902-1117  
Email: [REDACTED]

---

**From:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]  
**Sent:** Tuesday, March 19, 2024 8:37 AM  
**To:** Victoria Menchaca [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]; CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]  
**Cc:** THPO Compliance [REDACTED]  
**Subject:** RE: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

I tried to send the document via email but it will not go through due to size limit.

Can you provide the link to the THPO FTP site so I can attach the document for you?

Regards,

Jennifer E. Moss  
Archaeologist CTR - Jacobs  
325th CES/CEIE|103 Mississippi Ave, Bldg. 36233, Tyndall AFB FL 32403  
DSN: 283-2709|Ph: 850-283-2709|C: 973 459 8819

**From:** Victoria Menchaca [REDACTED]  
**Sent:** Tuesday, March 19, 2024 7:29 AM  
**To:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]; CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]  
**Cc:** THPO Compliance [REDACTED]  
**Subject:** [Non-DoD Source] Re: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

Hi Jennifer,

Could we get a copy of the report for TY-160 please?

Thanks,  
Victoria L. Menchaca, MA, Compliance Analyst II  
STOF THPO, Compliance Section  
30290 Josie Billie Hwy, PMB 1004  
Clewiston, FL 33440  
Phone: 863-458-8195  
Fax: 863-902-1117  
Email: [REDACTED]

---

**From:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]

**Sent:** Monday, March 18, 2024 1:43 PM

**To:** Victoria Menchaca [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]; CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]

**Cc:** THPO Compliance [REDACTED]

**Subject:** RE: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Victoria,

On behalf of Tyndall AFB, the areas described within this EA have been previously surveyed; please see the map attached.

Survey tract TY-160 was conducted by Wood in 2019 after Hurricane Michael and has been provided to the FL SHPO. However, due to COVID-19, the SHPO is delayed in reviewing reports and at this time has not yet been reviewed. The survey did locate several sites including two sites that are within or close by the proposed area: 8BY02723 and 8BY02727.

8BY02723 is a prehistoric artifact scatter of undetermined time period. It consisted of two potter sherds and one lithic unifacial tool and is considered ineligible for listing on the National Register of Historic Places (NRHP).

8BY02727 is a prehistoric artifact scatter of indeterminate time period, as well as a historic artifact scatter dating to mid-to late 20<sup>th</sup> century. Due to low density of prehistoric and historic materials, the site is considered ineligible for listing on the NRHP.

Survey tract TY-0047 was conducted by Prentice Thomas and Associates in 1993. However, part of this survey tract was recently resurveyed (TY-198-outside of housing area) in 2023 by WSP and is still awaiting a final copy of the report. No sites were located within the proposed area.

If you would like a copy of these reports, please let me know and I will be ready to provide them.

Please let me know if you have any other questions or concerns.

Regards,

Jennifer E. Moss

Archaeologist CTR - Jacobs

325th CES/CEIE|103 Mississippi Ave, Bldg. 36233, Tyndall AFB FL 32403

DSN: 283-2709|Ph: 850-283-2709|C: 973 459 8819

**From:** Victoria Menchaca [REDACTED]

**Sent:** Friday, March 15, 2024 9:20 AM

**To:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]; WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]; CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]  
**Cc:** THPO Compliance [REDACTED]  
**Subject:** [Non-DoD Source] RE: Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

SEMINOLE TRIBE OF FLORIDA  
TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC  
PRESERVATION OFFICE  
SEMINOLE TRIBE OF FLORIDA  
30290 JOSIE BILLIE HIGHWAY  
PMB 1004  
CLEWISTON, FL 33440

THPO PHONE: (863) 983-6549  
FAX: (863) 902-1117

THPO WEBSITE: WWW.STOFTHPO.COM



TRIBAL OFFICERS

MARCELLUS W. OSCEOLA JR.  
CHAIRMAN

MITCHELL CYPRESS  
VICE CHAIRMAN

LAVONNE ROSE  
SECRETARY

PETER A. HAHN  
TREASURER

March 15, 2024

Edwin Wallace  
Cultural Resources Program  
Tyndall Air Force Base  
Email: [REDACTED]  
Phone: 850-283-2714

**Subject:** Tyndall AFB - Bay District School EA Scoping Letter, Bay County, Florida  
**THPO Compliance Tracking Number:** 0034295

**In order to expedite the THPO review process:**

1. Please correspond via email and provide documents as attachments (a THPO FTP site is available for large files),
2. Please send all emails to [REDACTED],
3. Please reference the THPO Compliance Tracking Number if one has been assigned.

Dear Edwin Wallace,

Thank you for contacting the Seminole Tribe of Florida – Tribal Historic Preservation Office (STOF-THPO) Compliance Section regarding the *Tyndall AFB - Bay District School EA Scoping Letter, Bay County, Florida*.

The proposed undertaking does fall within the STOF Area of Interest. We have reviewed the information that you provided pursuant to Section 106 of the National Historic Preservation Act and its implementing authority, 36 CFR Part 800. For us to complete our review we would like to request the following additional information:

- Has the proposed project area been subject to a Cultural Resources Assessment Survey that meets the current requirements of the Florida Division of Historic Resources' (FDHR) Module 3 Guidelines for Use by Historic Preservation Professionals?

We look forward to the delivery of the additional information requested. Please continue to consult with our office and feel free to contact us with any questions or concerns.

Sincerely,  
Victoria L. Menchaca, MA, Compliance Analyst II  
STOF-THPO, Compliance Review Section  
30290 Josie Billie Hwy, PMB 1004  
Clewiston, FL 33440  
Fax: 863-902-1117  
Email: [REDACTED]

---

**From:** MOSS, JENNIFER E CTR USAF ACC 325 CES/CEIEA [REDACTED]  
**Sent:** Wednesday, February 21, 2024 4:25 PM  
**To:** THPO Compliance [REDACTED]; Tina Osceola  
[REDACTED]; Danielle Simon [REDACTED]; Chairman  
[REDACTED]; info.thpo [REDACTED]  
**Cc:** CINTRON, JOSE J CIV USAF ACC 325 CES/CEIE [REDACTED]; HARRACH  
HARCOURT, ILARIA CIV USAF AFCEC AFCEC/CZOE [REDACTED];  
WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Subject:** Bay District School EA Scoping Letter, Tyndall Air Force Base (AFB), Bay County, Florida

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Osceola,

On behalf of Tyndall AFB, please accept for review the attached consultation for the proposed undertaking. Any questions may be directed to Mrs. Ilaria Harrach Harcourt at [REDACTED], 850-883-3350 or Mr. Jose Cintron at [REDACTED], 850-283-2713.

Regards,

Jennifer E. Moss-CTR Archaeologist  
Jacobs Engineering Group Inc.  
325th CES/CEIE|103 Mississippi Ave, Bldg. 36233, Tyndall AFB FL 32403  
DSN: 283-2709|Ph: 850-283-2709|C: 973 459 8819



**DEPARTMENT OF THE AIR FORCE**  
**325TH FIGHTER WING (ACC)**  
**TYNDALL AIR FORCE BASE FLORIDA**

24 January 2024

Colonel George R. Watkins  
Commander  
325th Fighter Wing  
501 Airey Avenue, Suite 1  
Tyndall AFB FL 32403-5549

Ryan Morrow, Town King  
Thlopthlocco Tribal Town  
P.O. Box 188  
Okemah OK 74859-0188

Dear Town King Morrow

Bay District Schools (BDS) is currently preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to construct a K-8 Educational Facility at Tyndall Air Force Base (AFB), Bay County, Florida. The regional location of Tyndall AFB is shown on Figure 1. The EA is being prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

The Proposed Action is needed because the existing facility is undersized and unable to be expanded in its current location due to the lack of suitable developable space for the facility, as a result of environmental hazards that exist on the current school site that prevents reconstruction or additional construction on the current site. Without new facilities that meet applicable size, safety, and mission requirements, the existing facility will be forced to close and be relocated off base.

The Proposed locations for the K-8 Educational Facility are shown on Figures 2 and 3 (Youth Center and the Beacon Beach sites). These locations are within the installation property and provide the area needed to serve the current and future influx of students related to the expanded F-35 mission at Tyndall AFB.

The proposed Action includes the construction of K-8 Educational Facility (approximately 253,000 square feet) with an Administration Office, Media Space, Cafetorium, Gymnasium, Classrooms and Laboratory for approximately 1,200 students. The Site will be strategically fenced to allow direct public access to the after-hours event spaces in the Cafeteria and Gym but keeps the rest of the campus secure from unwarranted visitors. The site would be cleared and graded for construction and stormwater drainage (approximately 40 acres total).

The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. During the NEPA process, BDS will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Tyndall AFB is not aware of any historic properties of religious or tribal significance located within the project areas. In accordance with Section 106, implementing regulations at 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions*

with *Federally Recognized Tribes*, the Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. Tyndall AFB is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, Tyndall AFB requests your input in identifying any issues or areas of concern you feel should be addressed in the EA.

Tyndall AFB respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. If you have any questions or require additional information, please contact Tyndall AFB's point of contact, Mr. Edwin Wallace, via email at [REDACTED], or via telephone at (850) 283-2714.

Sincerely

WATKINS.GEORG  
E.R.1086349333

Digitally signed by  
WATKINS.GEORGE.R,1086349333  
Date: 2024.02.20 16:16:57 -06'00'

GEORGE R. WATKINS, Colonel, USAF  
Commander

3 Attachments:

1. Figure 1 - Location of Tyndall Air Force Base
2. Figure 2 - Locations of Youth Center Site
3. Figure 2 - Locations of Beacon Beach Site

Sent via email to: [REDACTED]

## **Letters Sent April – May 2025**



**DEPARTMENT OF THE AIR FORCE  
325TH CIVIL ENGINEER SQUADRON (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Mr. José J. Cintron  
Chief, Environmental Element  
325th Civil Engineer Squadron  
103 Mississippi Road  
Tyndall AFB FL 32403-5014

Chris Stahl  
Clearinghouse Coordinator  
Florida Department of Environmental Protection  
Office of Intergovernmental Programs  
3900 Commonwealth Blvd, Mail Station 47  
Tallahassee FL 32399

Re: Environmental Assessment for Lease Agreement with Bay District Schools for Parcel of Land,  
Tyndall Air Force Base, Florida

Dear Mr. Stahl

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with Tyndall Air Force Base (AFB) for a parcel of land on Tyndall AFB, Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF's Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

The purpose of the Proposed Action is for BDS to build and operate a K–8 school to replace the existing Tyndall Academy (Figure 2). The need for the Proposed Action is to accommodate current and projected student population growth and ensure a high-quality educational environment for the students. The existing Tyndall Academy is over capacity. BDS is using modular units at the school to provide the necessary classroom space. The existing Tyndall Academy is undersized to accommodate Tyndall AFB's projected population increase from the transition to the F-35 mission and the current population growth of Bay County, exacerbated by the loss of a Bay County middle school in 2018 from Hurricane Michael. The BDS cannot expand the current school at its current location because of the lack of suitable developable space as a result of environmental hazards that exist at the site.

We contacted you on February 21, 2024, regarding this Proposed Action. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

The Proposed Action includes BDS leasing a parcel of about 40 acres and building an approximately 253,000-square foot K–8 school with the capacity for approximately 1,200 students. The site would be cleared and graded. The school would have an administration office, a cafetorium, classroom buildings, a gymnasium, a media center, and outdoor dining/gathering spaces, playgrounds, and sports fields and facilities. The site would be designed to allow direct public access to after-hours event spaces in the cafetorium and gymnasium while keeping the rest of the school campus secure from unauthorized visitors.

During the EA process, BDS will determine whether the Proposed Action would have adverse impacts on coastal resources protected under the state of Florida’s Coastal Zone Management Program.

Tyndall AFB respectfully requests your written comments and other input on the Proposed Action within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA. The Draft EA will be provided to the State Clearinghouse for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

CINTRON.JOSÉ Digitally signed by  
CINTRON.JOSÉ.J.1182275146  
Date: 2025.04.18 07:53:53 -05'00'  
J.1182275146

JOSÉ CINTRON, GS-13, DAF

5 Attachments:

1. Figure 1. Location of Tyndall Air Force Base
2. Figure 2. Locations of Existing School and Alternative Sites
3. Figure 3. Location of Alternative 1: Cleveland Gate Site
4. Figure 4. Location of Alternative 2: Youth Center Site
5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email [REDACTED].

# **ATTACHMENTS**

**Figure 1. Location of Tyndall Air Force Base**



- LEGEND**
- ▬ County Boundary
  - ▬ Interstate Highway
  - ▬ Major Road
  - State Park
  - Surface Water
  - Tyndall AFB
  - Urban Area
  - ▬ U.S. Route

**Location Map**

Sources: Florida DEP 2025; Tyndall AFB GIS 2025.

**Figure 2. Locations of Existing School and Alternative Sites**

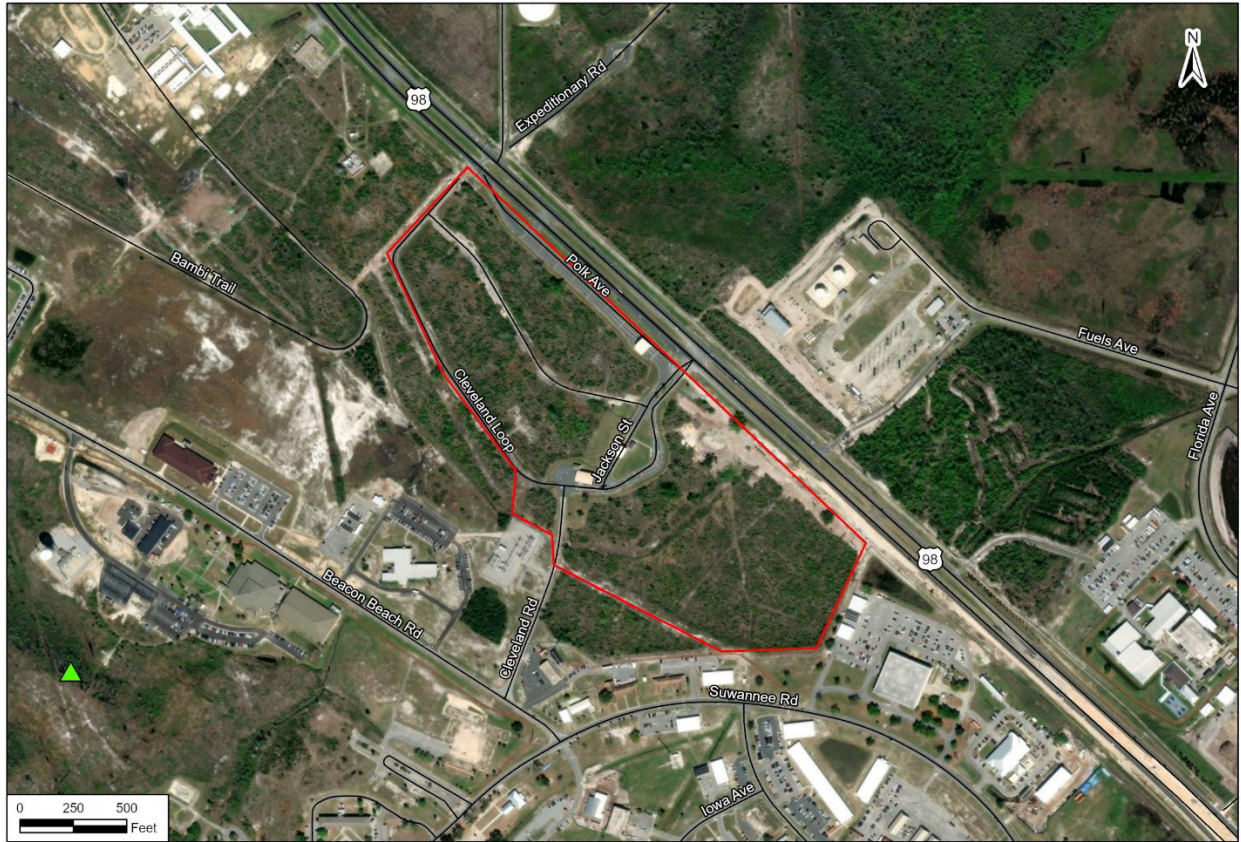


**LEGEND**  
 Alternative Sites  
▲ Bald Eagle Nest (2023 Survey)  
 Road  
 Tyndall AFB Boundary

**Current School and Alternative Sites**

Note: Project boundary is approximate. Sources: Esri World Imagery 2023; Tyndall AFB GIS 2025.

### Figure 3. Location of Alternative 1: Cleveland Gate Site



**LEGEND**  
Alternative Site  
Road  
▲ Bald Eagle Nest (2023 Survey)

**Alternative 1: Cleveland Gate Site**

Note: Project boundary is approximate. Sources: Esri World Imagery 2023; Tyndall AFB GIS 2025.

# Figure 4. Location of Alternative 2: Youth Center Site

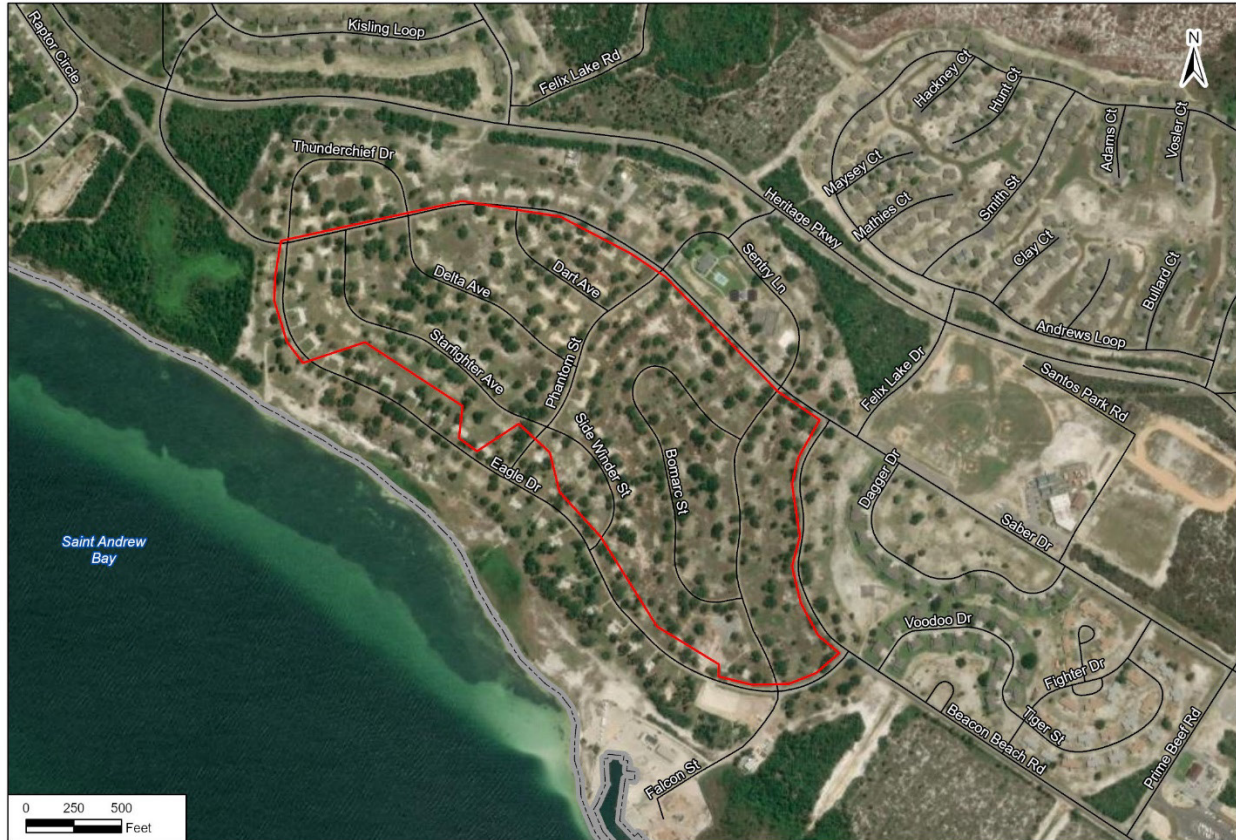


**LEGEND**  
Alternative Site  
Road

**Alternative 2: Youth Center Site**

Note: Project boundary is approximate. Sources: Esri World Imagery 2023; Tyndall AFB GIS 2025.

**Figure 5. Location of Alternative 3: Beacon Beach Site**



**Alternative 3: Beacon Beach Site**

- LEGEND**
- Alternative Site
  - Road
  - Tyndall AFB Boundary

Note: Project boundary is approximate. Sources: Esri World Imagery 2023; Tyndall AFB GIS 2025.

**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** SAI# FL202504240439C  
**Date:** Friday, April 25, 2025 11:06:25 AM

---

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

To: Edwin Wallace,

Re: Florida State Clearinghouse Project Review

Project SAI#: FL202504240439C

Date Received: 04/21/25

Project Description: DEPARTMENT OF DEFENSE, U.S. AIR FORCE, ENVIRONMENTAL ASSESSMENT TO LEASE LAND, CONSTRUCT AND OPERATE A KINDERGARTEN THROUGH GRADE 8 EDUCATIONAL FACILITY AT TYNDALL AIR FORCE BASE, BAY COUNTY, FLORIDA.

The Florida State Clearinghouse has received the above-referenced project and has forwarded it to the appropriate state agencies for review. Please refer to the State Application Identifier (SAI) number in all correspondence with the Florida State Clearinghouse regarding this project. Applicants should expect to receive their State Clearance Letter 30-60 days from the received date. Additional information can be found at

[REDACTED].

Please submit all future project applications and correspondence by email to [REDACTED]. If your submittal is too large to send via email or if you need other assistance, contact Chris Stahl at (850) 717-9076.

[REDACTED]

**From:** Stahl, Chris [REDACTED]  
**Sent:** Wednesday, June 4, 2025 2:12 PM  
**To:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Cc:** State\_Clearinghouse [REDACTED]  
**Subject:** [Non-DoD Source] State Clearance Letter for FL202504240439C- Construct And Operate A Kindergarten Through Grade 8 Educational Facility At Tyndall Air Force Base, Bay County, Florida

June 4, 2025

Edwin Wallace  
USAF -Tyndall  
325th Fighter Wing  
501 Airey Avenue  
Tyndall AFB, Florida 32403

RE: Department of Defense, Department of the Air Force, U.S. Air Force, Construct and Operate a Kindergarten through Grade 8 Educational Facility at Tyndall Air Force Base, Bay County, Florida  
SAI # FL202504240439C

Dear Edwin:

Florida State Clearinghouse staff has reviewed the proposal under the following authorities: Presidential Executive Order 12372; § 403.061(42), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

According to the supplied drawings and narrative, the project does not include wetland or surface water impacts. If any wetland or surface water impacts are proposed, then an ERP Individual Permit for these impacts will be required. An ERP Individual Permit will be required for the proposed construction, per 62-330.020, F.A.C., as the proposed project includes the addition of more than 4,000 sq. ft. of impervious surface subject to vehicular activity or 9,000 sq. ft. total. Any areas where existing impervious surfaces are to be removed to bare earth and replaced count toward these thresholds. For any future guidance for this project, please contact the Department's Northwest District. Should the project involve the construction of a water main extension, then a permit is required in accordance with Rule 62-555, F.A.C. Additionally, a wastewater permit will likely be required for proposed facilities proposed to be constructed.

If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately.

Based on the information submitted and minimal project impacts, the state has no objections to allocation of federal funds for the subject project and, therefore, the funding award is consistent with the Florida Coastal Management Program (FCMP). The state's final concurrence of the project's consistency with the FCMP will be determined during any environmental permitting processes, in accordance with Section 373.428, Florida Statutes, if applicable.

Sincerely,

**Chris Stahl**

Chris Stahl, Coordinator  
Florida State Clearinghouse  
Florida Department of Environmental Protection  
3900 Commonwealth Blvd., M.S. 47  
Tallahassee, FL 32399-2400  
ph. (850) 717-9076  
[REDACTED]



**DEPARTMENT OF THE AIR FORCE  
325TH CIVIL ENGINEER SQUADRON (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Mr. José J. Cintron  
Chief, Environmental Element  
325th Civil Engineer Squadron  
103 Mississippi Road  
Tyndall AFB FL 32403-5014

Alissa Slade Lotane  
State Historic Preservation Officer  
Florida Division of Historical Resources  
R.A. Gray Building, Room 305  
500 South Bronough St  
Tallahassee FL 32399

Re: Environmental Assessment for Lease Agreement with Bay District Schools for Parcel of Land,  
Tyndall Air Force Base, Florida

Dear Ms. Lotane

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with Tyndall Air Force Base (AFB) for a parcel of land on Tyndall AFB, Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF’s Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

The purpose of the Proposed Action is for BDS to build and operate a K–8 school to replace the existing Tyndall Academy (Figure 2). The need for the Proposed Action is to accommodate current and projected student population growth and ensure a high-quality educational environment for the students. The existing Tyndall Academy is over capacity. BDS is using modular units at the school to provide the necessary classroom space. The existing Tyndall Academy is undersized to accommodate Tyndall AFB’s projected population increase from the transition to the F-35 mission and the current population growth of Bay County, exacerbated by the loss of a Bay County middle school in 2018 from Hurricane Michael. The BDS cannot expand the current school at its current location because of the lack of suitable developable space as a result of environmental hazards that exist at the site.

We contacted you on February 21, 2024, regarding this Proposed Action. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

The Proposed Action includes BDS leasing a parcel of about 40 acres and building an approximately 253,000-square foot K–8 school with the capacity for approximately 1,200 students. The site would be cleared and graded. The school would have an administration office, a cafetorium, classroom buildings, a gymnasium, a media center, and outdoor dining/gathering spaces, playgrounds, and sports fields and facilities. The site would be designed to allow direct public access to after-hours event spaces in the cafetorium and gymnasium while keeping the rest of the school campus secure from unauthorized visitors.

The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act (NHPA). During the NEPA process, BDS will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Tyndall AFB is aware of three archaeological sites that could be affected by the Proposed Action. Archaeological Sites 8BY00153, 8BY00154, and 8BY02721 are near the Beacon Beach Site. Archaeological Sites 8BY00153 and 8BY02721 are not eligible for listing in the National Register of Historic Places (NRHP) (DHR Project File No. 2024-5476, Task Order TY-22-0026). A portion of Site 8BY00154 is eligible for the NRHP (DHR Project File No. 2024-5476, Task Order TY-22-0026), and the site's 50-meter buffer zone extends into the Beacon Beach Site.

During the EA process, BDS will determine whether the Proposed Action would have adverse impacts on historic properties including archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Separate consultation pursuant to Section 106 of the NHPA and its implementing regulations at 36 CFR 800.2(c)(1) will be initiated at a later date.

Tyndall AFB respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

Digitally signed by  
CINTRON.JOSE J.1182275  
146  
Date: 2025.04.18 07:56:32  
-05'00'

JOSÉ CINTRON, GS-13, DAF

Attachments:

1. Figure 1. Location of Tyndall Air Force Base
2. Figure 2. Locations of Existing School and Alternative Sites
3. Figure 3. Location of Alternative 1: Cleveland Gate Site
4. Figure 4. Location of Alternative 2: Youth Center Site
5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email [REDACTED].



**DEPARTMENT OF THE AIR FORCE  
325TH CIVIL ENGINEER SQUADRON (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Mr. José J. Cintron  
Chief, Environmental Element  
325th Civil Engineer Squadron  
103 Mississippi Road  
Tyndall AFB FL 32403-5014

Jon Creamer  
Regional Director  
Florida Fish and Wildlife Conservation Commission  
Northwest Region Office  
3911 Hwy 2321  
Panama City FL 32409

Re: Environmental Assessment for Lease Agreement with Bay District Schools for Parcel of Land,  
Tyndall Air Force Base, Florida

Dear Mr. Creamer

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with Tyndall Air Force Base (AFB) for a parcel of land on Tyndall AFB, Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF’s Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

The purpose of the Proposed Action is for BDS to build and operate a K–8 school to replace the existing Tyndall Academy (Figure 2). The need for the Proposed Action is to accommodate current and projected student population growth and ensure a high-quality educational environment for the students. The existing Tyndall Academy is over capacity. BDS is using modular units at the school to provide the necessary classroom space. The existing Tyndall Academy is undersized to accommodate Tyndall AFB’s projected population increase from the transition to the F-35 mission and the current population growth of Bay County, exacerbated by the loss of a Bay County middle school in 2018 from Hurricane Michael. The BDS cannot expand the current school at its current location because of the lack of suitable developable space as a result of environmental hazards that exist at the site.

We contacted you on February 21, 2024, regarding this Proposed Action. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

The Proposed Action includes BDS leasing a parcel of about 40 acres and building an approximately 253,000-square foot K–8 school with the capacity for approximately 1,200 students. The site would be cleared and graded. The school would have an administration office, a cafetorium, classroom buildings, a gymnasium, a media center, and outdoor dining/gathering spaces, playgrounds, and sports fields and facilities. The site would be designed to allow direct public access to after-hours event spaces in the cafetorium and gymnasium while keeping the rest of the school campus secure from unauthorized visitors.

During the EA process, BDS will determine whether the Proposed Action would have adverse impacts on any fish or wildlife resources regulated by the Florida Fish and Wildlife Conservation Commission.

Tyndall AFB respectfully requests your written comments and other input on the Proposed Action within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA. The Draft EA will be provided for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, [REDACTED] or via telephone at (850) 283-2714.

Sincerely

Digitally signed by  
CINTRON.JOSE.J.1182275  
146  
Date: 2025.04.18  
07:50:14 -05'00'

JOSÉ CINTRON, GS-13, DAF

Attachments:

1. Figure 1. Location of Tyndall Air Force Base
2. Figure 2. Locations of Existing School and Alternative Sites
3. Figure 3. Location of Alternative 1: Cleveland Gate Site
4. Figure 4. Location of Alternative 2: Youth Center Site
5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email [REDACTED].



**DEPARTMENT OF THE AIR FORCE  
325TH CIVIL ENGINEER SQUADRON (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Mr. José J. Cintron  
Chief, Environmental Element  
325th Civil Engineer Squadron  
103 Mississippi Road  
Tyndall AFB FL 32403-5014

Mr. Robert Carey  
Division Manager, Environmental Review and Consultation  
U.S. Fish and Wildlife Service  
Florida Ecological Services Office  
1601 Balboa Ave  
Panama City FL 32405

Re: Environmental Assessment for Lease Agreement with Bay District Schools for Parcel of Land,  
Tyndall Air Force Base, Florida

Dear Mr. Carey

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with Tyndall Air Force Base (AFB) for a parcel of land on Tyndall AFB, Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF's Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

The purpose of the Proposed Action is for BDS to build and operate a K–8 school to replace the existing Tyndall Academy (Figure 2). The need for the Proposed Action is to accommodate current and projected student population growth and ensure a high-quality educational environment for the students. The existing Tyndall Academy is over capacity. BDS is using modular units at the school to provide the necessary classroom space. The existing Tyndall Academy is undersized to accommodate Tyndall AFB's projected population increase from the transition to the F-35 mission and the current population growth of Bay County, exacerbated by the loss of a Bay County middle school in 2018 from Hurricane Michael. The BDS cannot expand the current school at its current location because of the lack of suitable developable space as a result of environmental hazards that exist at the site.

We contacted you on February 21, 2024, regarding this Proposed Action. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

The Proposed Action includes BDS leasing a parcel of about 40 acres and building an approximately 253,000-square foot K–8 school with the capacity for approximately 1,200 students. The site would be cleared and graded. The school would have an administration office, a cafetorium, classroom buildings, a gymnasium, a media center, and outdoor dining/gathering spaces, playgrounds, and sports fields and facilities. The site would be designed to allow direct public access to after-hours event spaces in the cafetorium and gymnasium while keeping the rest of the school campus secure from unauthorized visitors.

During the EA process, BDS will determine whether the Proposed Action would have adverse impacts on any fish or wildlife resources regulated by the U.S. Fish and Wildlife Service.

Tyndall AFB respectfully requests your written comments and other input on the Proposed Action within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

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J.1182275146  
Date: 2025.04.18 07:51:56  
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JOSÉ CINTRON, GS-13, DAF

5 Attachments:

1. Figure 1. Location of Tyndall Air Force Base
2. Figure 2. Locations of Existing School and Alternative Sites
3. Figure 3. Location of Alternative 1: Cleveland Gate Site
4. Figure 4. Location of Alternative 2: Youth Center Site
5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email to: [REDACTED]

**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [Lee Walters](#); [REDACTED]; [REDACTED]; [REDACTED]; [REDACTED]; [REDACTED]; [REDACTED]; [REDACTED]  
**Subject:** Re: [EXTERNAL] Coordination for Tyndall AFB Tyndall Academy EA  
**Date:** Tuesday, April 22, 2025 2:48:40 PM

---

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Good afternoon, Mr. Wallace. The Florida Ecological Services Office has no concerns over listed species for this project. Thank you.

José J. Rivera  
Supervisor, Division of Environmental Review &  
Legislative Relations Team Lead  
U.S. Fish and Wildlife Service  
Florida Ecological Services Office  
777 37<sup>th</sup> Street, Suite D-101  
Vero Beach, Florida 32960  
office: 772-226-8018  
mobile: 772-299-8013  
email: [REDACTED]

**NOTE:** All email correspondence and attachments received from or sent to me are subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties

---

**From:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Sent:** Tuesday, April 22, 2025 7:39 AM  
**To:** [REDACTED]; [REDACTED]; [REDACTED], Robert L [REDACTED]  
**Cc:** Lee Walters [REDACTED] RJ Plank [REDACTED]; [REDACTED]; Shrestha, Suni [REDACTED]; Giddens, Dave [REDACTED]; Nelson, Anna [REDACTED]; Cannella, Michelle [REDACTED]  
**Subject:** [EXTERNAL] Coordination for Tyndall AFB Tyndall Academy EA

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good morning Mr. Carey:

On behalf of the Department of the Air Force (DAF), attached please find an updated Interagency/Intergovernmental Coordination for Environmental Planning (IICEP) letter regarding an upcoming National Environmental Policy Act (NEPA) Environmental Assessment (EA) for Tyndall Air Force Base (AFB), Bay County, Florida. The DAF is proposing to enter into a land lease with Bay District Schools (BDS) for BDS to construct and operate a new Kindergarten through grade 8 school on the base, to replace the existing Tyndall Academy.

Per the attached letter, if you have input regarding resources of concern to your agency or questions about the proposed action, please respond to Mr. Edwin Wallace, Tyndall AFB NEPA Program Manager, at [REDACTED], and cc'd on this email. A response is respectfully requested within 30 days of receipt.

Thank you for your time and assistance.

Sincerely,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714

**From:** FLESRegs, FW4 [REDACTED]  
**Sent:** Wednesday, April 23, 2025 3:45 PM  
**To:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Subject:** [Non-DoD Source] Re: [EXTERNAL] Coordination for Tyndall AFB Tyndall Academy EA

Thank you for contacting the U.S. Fish and Wildlife Service, Florida Ecological Services Office. This message simply confirms that we received your request for consultation. The project has been entered into our system and has been assigned the ECOSphere Project Code number **2025-0087551**

Please include your ECOSphere project code number, included in the top portion of this email, in all subsequent correspondence regarding this project.

A staff biologist will contact you directly should we require additional information. If you have not heard from us within **60 days**, please submit a status request via email to [REDACTED]. Thank you.

---

**From:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Sent:** Tuesday, April 22, 2025 7:39 AM  
**To:** FLESRegs, FW4 [REDACTED]; Carey, Robert L [REDACTED]  
**Cc:** Lee Walters [REDACTED]; RJ Plank [REDACTED];  
[REDACTED];  
Shrestha, Suni [REDACTED];  
Giddens, Dave [REDACTED]; Nelson, Anna [REDACTED];  
Cannella, Michelle [REDACTED];  
**Subject:** [EXTERNAL] Coordination for Tyndall AFB Tyndall Academy EA

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

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On behalf of the Department of the Air Force (DAF), attached please find an updated Interagency/ Intergovernmental Coordination for Environmental Planning (IICEP) letter regarding an upcoming National Environmental Policy Act (NEPA) Environmental Assessment (EA) for Tyndall Air Force Base (AFB), Bay County, Florida. The DAF is proposing to enter into a land lease with Bay District Schools (BDS) for BDS to construct and operate a new Kindergarten through grade 8 school on the base, to replace the existing Tyndall Academy.

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Thank you for your time and assistance.

Sincerely,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714

**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL  
**Date:** Tuesday, May 6, 2025 7:11:57 AM  
**Attachments:** [REDACTED]

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Chairman Cypress,

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K-8) educational facility on the parcel. Attached is the scoping letter and invitation to participate in consultation for the proposed undertaking.

If you have any questions, please contact Edwin Wallace at [REDACTED] or 850-283-2714.

Respectfully,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714



**DEPARTMENT OF THE AIR FORCE  
325TH FIGHTER WING (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Colonel Christian M. Bergtholdt  
Commander  
325th Fighter Wing  
325 Checkertail Way  
Building 1400M, Suite 220  
Tyndall AFB FL 32403-5549

Talbert Cypress, Chairman  
Miccosukee Tribe of Indians of Florida  
Tamiami Station  
PO Box 440021  
Miami FL 33144

Dear Chairman Cypress

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for the BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF's Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

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The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. During the NEPA process, BDS will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Tyndall AFB is aware of three archaeological sites that could be affected by the Proposed Action. Archaeological Sites 8BY00153, 8BY00154, and 8BY02721 are near the Beacon Beach Site. Archaeological Sites 8BY00153 and 8BY02721 are not eligible for listing in the National Register of Historic Places (NRHP). A portion of Site 8BY00154 is eligible for the NRHP and the site's 50-meter buffer zone extends into the Beacon Beach Site.

In accordance with Section 106, implementing regulations in 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. The DAF is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, you are requested by the DAF to provide your input in identifying any issues or areas of concern you feel should be addressed in the EA.

The DAF respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

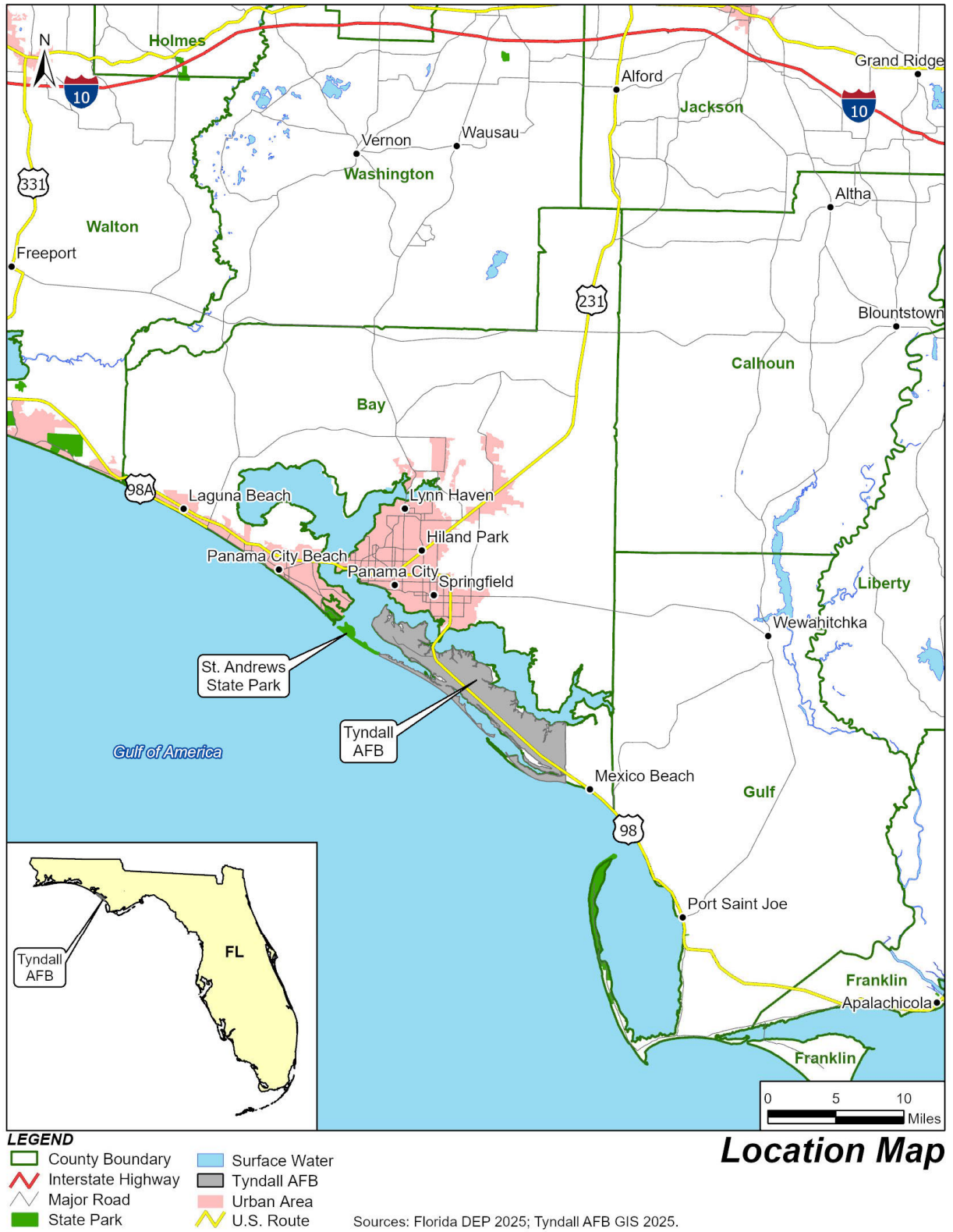
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Date: 2025.05.05 13:55:13 -05'00'  
CHRISTIAN M. BERGTHOLDT, Colonel, USAF  
Commander

5 Attachments:

1. Figure 1. Location of Tyndall Air Force Base
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3. Figure 3. Location of Alternative 1: Cleveland Gate Site
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5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email to [REDACTED].

**Figure 1. Location of Tyndall Air Force Base**



**Figure 2. Locations of Existing School and Alternative Sites**

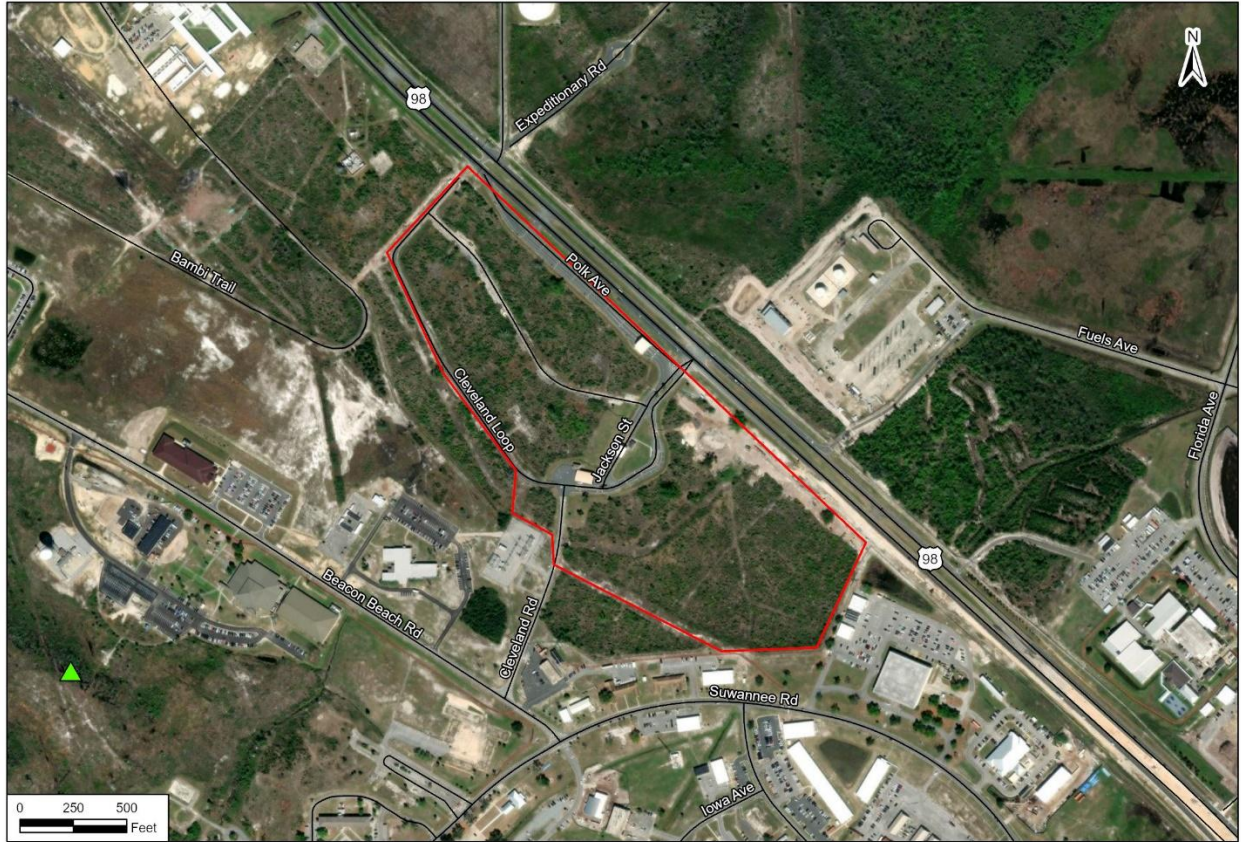


**LEGEND**  
 Alternative Sites  
▲ Bald Eagle Nest (2023 Survey)  
 Road  
 Tyndall AFB Boundary

**Current School and Alternative Sites**

Note: Project boundary is approximate. Sources: Esri World Imagery 2023; Tyndall AFB GIS 2025.

### Figure 3. Location of Alternative 1: Cleveland Gate Site



**LEGEND**  
Alternative Site  
Road  
▲ Bald Eagle Nest (2023 Survey)

**Alternative 1: Cleveland Gate Site**

Note: Project boundary is approximate. Sources: Esri World Imagery 2023; Tyndall AFB GIS 2025.

# Figure 4. Location of Alternative 2: Youth Center Site

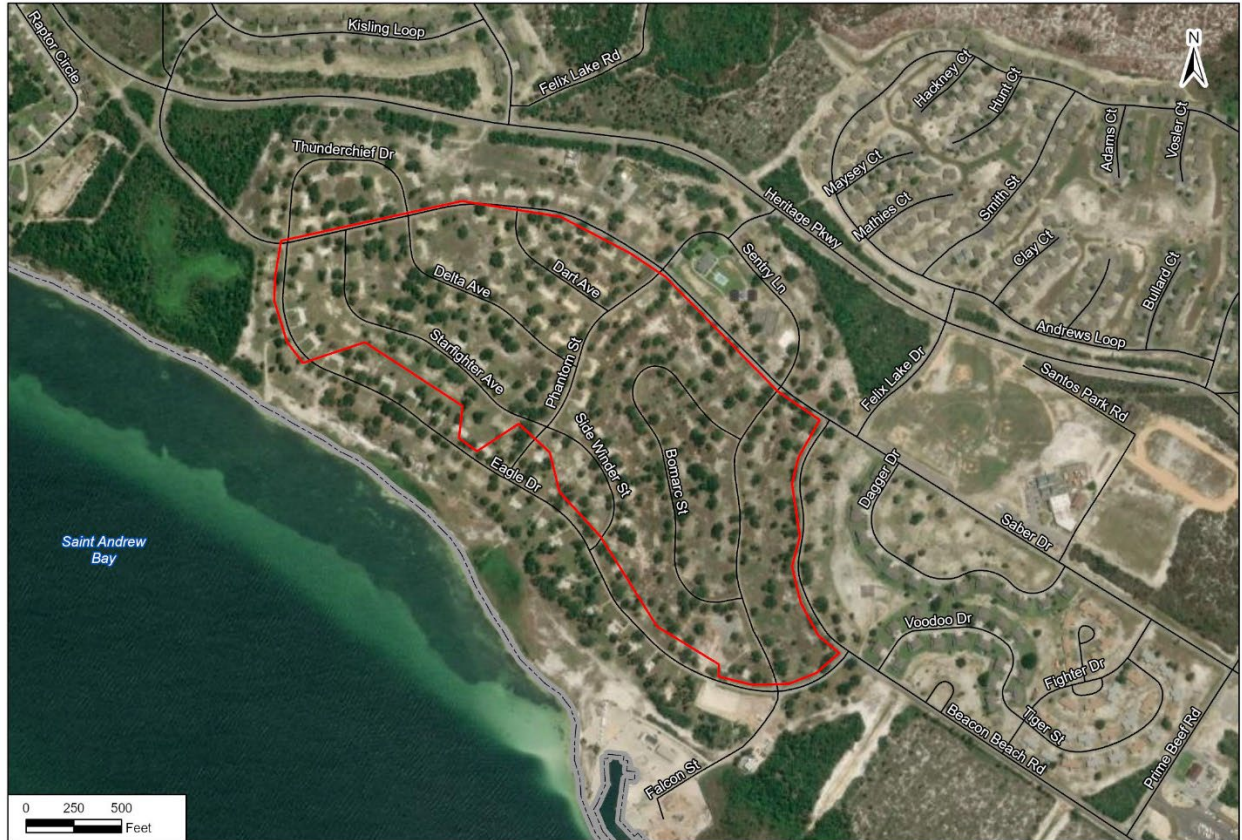


**LEGEND**  
Alternative Site  
Road

## Alternative 2: Youth Center Site

Note: Project boundary is approximate. Sources: Esri World Imagery 2023; Tyndall AFB GIS 2025.

# Figure 5. Location of Alternative 3: Beacon Beach Site



- LEGEND**
- Alternative Site
  - Road
  - Tyndall AFB Boundary

Note: Project boundary is approximate. Sources: Esri World Imagery 2023; Tyndall AFB GIS 2025.

## Alternative 3: Beacon Beach Site

**From:** [REDACTED]  
**To:** [REDACTED]; [REDACTED]; [REDACTED];  
**Cc:** [REDACTED]; [REDACTED];  
**Subject:** Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL  
**Date:** Tuesday, May 6, 2025 7:07:14 AM  
**Attachments:** [REDACTED]

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

Principal Chief Hill,

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. Attached is the scoping letter and invitation to participate in consultation for the proposed undertaking.

If you have any questions, please contact Edwin Wallace at [REDACTED] or 850-283-2714.

Respectfully,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714



**DEPARTMENT OF THE AIR FORCE  
325TH FIGHTER WING (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Colonel Christian M. Bergtholdt  
Commander  
325th Fighter Wing  
325 Checkertail Way  
Building 1400M, Suite 220  
Tyndall AFB FL 32403-5549

David Hill, Principal Chief  
Muscogee (Creek) Nation  
PO Box 580  
Okmulgee OK 74447

Dear Principal Chief Hill

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for the BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF’s Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

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We contacted you on February 20, 2024, regarding this Proposed Action, and we thank you for your response on March 25, 2024, with a finding that no historic properties would be affected. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

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In accordance with Section 106, implementing regulations in 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. The DAF is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, you are requested by the DAF to provide your input in identifying any issues or areas of concern you feel should be addressed in the EA.

The DAF respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

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Date: 2025.05.05 13:55:35 -05'00'

CHRISTIAN M. BERGTHOLDT, Colonel, USAF  
Commander

5 Attachments:

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3. Figure 3. Location of Alternative 1: Cleveland Gate Site
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5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email to [REDACTED].

**From:** Logan Guthrie [REDACTED]  
**Sent:** Tuesday, May 6, 2025 3:47 PM  
**To:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Subject:** [Non-DoD Source] Re: Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL

[REDACTED]  
[REDACTED]  
[REDACTED]

Good afternoon,

My name is Logan Guthrie, I'm the new Section 106 Reviewer for Muscogee Nation for the state of Florida. I'm unaware of the correspondence on February 20, 2024, regarding the proposed action on this project, nor our response on March 25, 2024, where we concurred with a finding of no historic properties affected. Would you mind emailing me this documentation, email conversation, etc., that way I'm can familiarize myself better with this proposal? In addition, for the proposed undertaking in this letter that may have impacts on archaeological sites (8BY00153, 8BY00154, and 8BY027

- [REDACTED]:
1. Provide the project location: State, County, and GPS coordinates.
  2. Provide a topographic and aerial map of the project that shows the APE (Area of Potential Effect) including any staging areas for equipment (i.e. construction, vehicles, etc.) for the current school and alternative sites.
  3. Map of known archaeological sites within 1 mile of the APE or project area. Consult with the state's SHPO concerning this.
  4. A cultural resource survey or evaluation of historic or cultural properties within the APE.
  5. Agency must identify any historic properties and determine eligibility to the National Register of Historic Places (NRHP).
  6. Agency must make a determination of effect on historic properties within the APE.

Until we have this information, we will not be providing a determination on any portion of this proposal. If you have any questions concerning this, please do not hesitate to contact me directly.

Mvto,

**Logan Guthrie, MA**  
Cultural Technician  
Historic and Cultural Preservation Department  
The Muscogee (Creek) Nation  
P.O. Box 580 | Okmulgee, OK 74447  
T 918.732.7759 | F 918.758.0649



**From:** RaeLynn Butler [REDACTED]  
**Sent:** Tuesday, May 6, 2025 8:14 AM  
**To:** Logan Guthrie [REDACTED]  
**Subject:** Fw: Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL

**RaeLynn A. Butler**  
Secretary of Culture and Humanities  
Department of Culture and Humanities  
Pum Fulletv & Mvskokvlke Emiyetv Empvtakv  
The Muscogee (Creek) Nation  
P.O. Box 580 | Okmulgee, OK 74447  
T 918.732.7678 | C 918.758.6614  
F 918.758.0649

[REDACTED]

---

**From:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Sent:** Tuesday, May 6, 2025 6:05 AM  
**To:** David Hill [REDACTED]; Turner Hunt [REDACTED];  
RaeLynn Butler [REDACTED]; Robin Soweka Jr.  
[REDACTED]; Section106 [REDACTED]  
**Cc:** Shrestha, Suni [REDACTED]; Cannella, Michelle  
[REDACTED]  
**Subject:** Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL

[REDACTED]

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Principal Chief Hill,

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K-8) educational facility on the parcel. Attached is the scoping letter and invitation to participate in consultation for the proposed undertaking.

If you have any questions, please contact Edwin Wallace at [REDACTED] or 850-283-2714.

Respectfully,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714

DISCLAIMER: This communication, along with any documents, files or attachments, is intended only for the use of the addressee and may contain legally privileged and confidential information. If you are not the intended recipient, you are hereby notified that any dissemination, distribution or copying of any information contained in or attached to this communication is strictly prohibited. If you have received this message in error, please notify the sender immediately and destroy the original communication and its attachments without reading, printing or saving in any manner. Please consider the environment before printing this e-mail.

**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL  
**Date:** Tuesday, May 6, 2025 7:25:29 AM  
**Attachments:** [REDACTED]

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Tribal Chair Bryan,

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K-8) educational facility on the parcel. Attached is the scoping letter and invitation to participate in consultation for the proposed undertaking.

If you have any questions, please contact Edwin Wallace at [REDACTED] or 850-283-2714.

Respectfully,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714



**DEPARTMENT OF THE AIR FORCE  
325TH FIGHTER WING (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Colonel Christian M. Bergtholdt  
Commander  
325th Fighter Wing  
325 Checkertail Way  
Building 1400M, Suite 220  
Tyndall AFB FL 32403-5549

Stephanie A. Bryan, Chairwoman  
Poarch Band of Creek Indians  
5811 Jack Springs Rd  
Atmore AL 36502

Dear Chairwoman Bryan

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for the BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF’s Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

The purpose of the Proposed Action is for BDS to build and operate a K–8 school to replace the existing Tyndall Academy (Figure 2). The need for the Proposed Action is to accommodate current and projected student population growth and ensure a high-quality educational environment for the students. The existing Tyndall Academy is over capacity. BDS is using modular units at the school to provide the necessary classroom space. The existing Tyndall Academy is undersized to accommodate Tyndall AFB’s projected population increase from the transition to the F-35 mission and the current population growth of Bay County, exacerbated by the loss of a Bay County middle school in 2018 from Hurricane Michael. The BDS cannot expand the current school at its current location because of the lack of suitable developable space due to environmental restoration that would be disturbed by additional site development.

We contacted you on February 20, 2024, regarding this Proposed Action. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

The Proposed Action includes BDS leasing a parcel of about 40 acres and building an approximately 253,000-square foot K–8 school with the capacity for approximately 1,200 students. The site would be cleared and graded. The school would have an administration office, a cafetorium, classroom buildings, a gymnasium, a media center, and outdoor dining/gathering spaces, playgrounds, and sports fields and facilities. The site would be designed to allow direct public access to after-hours event spaces in the cafetorium and gymnasium while keeping the rest of the school campus secure from unauthorized visitors.

The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. During the NEPA process, BDS will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Tyndall AFB is aware of three archaeological sites that could be affected by the Proposed Action. Archaeological Sites 8BY00153, 8BY00154, and 8BY02721 are near the Beacon Beach Site. Archaeological Sites 8BY00153 and 8BY02721 are not eligible for listing in the National Register of Historic Places (NRHP). A portion of Site 8BY00154 is eligible for the NRHP and the site's 50-meter buffer zone extends into the Beacon Beach Site.

In accordance with Section 106, implementing regulations in 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. The DAF is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, you are requested by the DAF to provide your input in identifying any issues or areas of concern you feel should be addressed in the EA.

The DAF respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

BERGTHOLDT.CHRISTIAN.M.1116429736  
Digitally signed by BERGTHOLDT.CHRISTIAN.M.1116429736  
Date: 2025.05.05 13:55:54 -05'00'

CHRISTIAN M. BERGTHOLDT, Colonel, USAF  
Commander

5 Attachments:

1. Figure 1. Location of Tyndall Air Force Base
2. Figure 2. Locations of Existing School and Alternative Sites
3. Figure 3. Location of Alternative 1: Cleveland Gate Site
4. Figure 4. Location of Alternative 2: Youth Center Site
5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email to [REDACTED].

**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL  
**Date:** Tuesday, May 6, 2025 7:21:58 AM  
**Attachments:** [REDACTED]

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Principal Chief Johnson,

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K-8) educational facility on the parcel. Attached is the scoping letter and invitation to participate in consultation for the proposed undertaking.

If you have any questions, please contact Edwin Wallace at [REDACTED] or 850-283-2714.

Respectfully,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714



**DEPARTMENT OF THE AIR FORCE  
325TH FIGHTER WING (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Colonel Christian M. Bergtholdt  
Commander  
325th Fighter Wing  
325 Checkertail Way  
Building 1400M, Suite 220  
Tyndall AFB FL 32403-5549

Lewis J. Johnson, Principal Chief  
Seminole Nation of Oklahoma  
PO Box 1498  
Wewoka OK 74884

Dear Principal Chief Johnson

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for the BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF’s Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

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We contacted you on February 20, 2024, regarding this Proposed Action. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

The Proposed Action includes BDS leasing a parcel of about 40 acres and building an approximately 253,000-square foot K–8 school with the capacity for approximately 1,200 students. The site would be cleared and graded. The school would have an administration office, a cafetorium, classroom buildings, a gymnasium, a media center, and outdoor dining/gathering spaces, playgrounds, and sports fields and facilities. The site would be designed to allow direct public access to after-hours event spaces in the cafetorium and gymnasium while keeping the rest of the school campus secure from unauthorized visitors.

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In accordance with Section 106, implementing regulations in 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. The DAF is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, you are requested by the DAF to provide your input in identifying any issues or areas of concern you feel should be addressed in the EA.

The DAF respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

BERGTHOLDT.CHRI  
STIAN.M.1116429736  
Digitally signed by  
BERGTHOLDT.CHRISTIAN.M.111642973  
Date: 2025.05.05 13:56:17 -05'00'  
CHRISTIAN M. BERGTHOLDT, Colonel, USAF  
Commander

5 Attachments:

1. Figure 1. Location of Tyndall Air Force Base
2. Figure 2. Locations of Existing School and Alternative Sites
3. Figure 3. Location of Alternative 1: Cleveland Gate Site
4. Figure 4. Location of Alternative 2: Youth Center Site
5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email to [REDACTED].

**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL  
**Date:** Tuesday, May 6, 2025 7:19:04 AM  
**Attachments:** [REDACTED]

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Chairman Osceola,

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K-8) educational facility on the parcel. Attached is the scoping letter and invitation to participate in consultation for the proposed undertaking.

If you have any questions, please contact Edwin Wallace at [REDACTED] or 850-283-2714.

Respectfully,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714



**DEPARTMENT OF THE AIR FORCE  
325TH FIGHTER WING (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Colonel Christian M. Bergtholdt  
Commander  
325th Fighter Wing  
325 Checkertail Way  
Building 1400M, Suite 220  
Tyndall AFB FL 32403-5549

Marcellus W. Osceola Jr., Chairman  
Seminole Tribe of Florida  
6300 Stirling Road  
Hollywood FL 33024

Dear Chairman Osceola

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for the BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF’s Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

The purpose of the Proposed Action is for BDS to build and operate a K–8 school to replace the existing Tyndall Academy (Figure 2). The need for the Proposed Action is to accommodate current and projected student population growth and ensure a high-quality educational environment for the students. The existing Tyndall Academy is over capacity. BDS is using modular units at the school to provide the necessary classroom space. The existing Tyndall Academy is undersized to accommodate Tyndall AFB’s projected population increase from the transition to the F-35 mission and the current population growth of Bay County, exacerbated by the loss of a Bay County middle school in 2018 from Hurricane Michael. The BDS cannot expand the current school at its current location because of the lack of suitable developable space due to environmental restoration that would be disturbed by additional site development.

We contacted you on February 20, 2024, regarding this Proposed Action, and we thank you for your response on March 28, 2024, with a finding that the Proposed Action did not fall within the Seminole Tribe of Florida Area of Interest and that you had no objection to the project at that time. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

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In accordance with Section 106, implementing regulations in 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. The DAF is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, you are requested by the DAF to provide your input in identifying any issues or areas of concern you feel should be addressed in the EA.

The DAF respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

BERGTHOLDT.CHRI  
STIAN.M.1116429736

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BERGTHOLDT.CHRISTIAN.M.111642973  
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Date: 2025.05.05 13:56:44 -05'00'

CHRISTIAN M. BERGTHOLDT, Colonel, USAF  
Commander

5 Attachments:

1. Figure 1. Location of Tyndall Air Force Base
2. Figure 2. Locations of Existing School and Alternative Sites
3. Figure 3. Location of Alternative 1: Cleveland Gate Site
4. Figure 4. Location of Alternative 2: Youth Center Site
5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email to [REDACTED].

**From:** Victoria Menchaca [REDACTED]  
**Sent:** Wednesday, May 21, 2025 3:29 PM  
**To:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Cc:** THPO Compliance [REDACTED]; Danielle Simon

**Subject:** [Non-DoD Source] RE: Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL

SEMINOLE TRIBE OF FLORIDA  
TRIBAL HISTORIC PRESERVATION OFFICE

SEMINOLE TRIBE OF FLORIDA

TRIBAL HISTORIC  
PRESERVATION OFFICE

THPO PHONE: (863) 983-6549

THPO TRIBAL CONSULTATION EMAIL:  
THPOCOMPLIANCE@SEMTRIBE.COM

THPO WEBSITE: WWW.STOFTHPO.COM



TRIBAL OFFICERS

MARCELLUS W. OSCEOLA JR.  
CHAIRMAN

HOLLY TIGER  
VICE CHAIRWOMAN

NAOMI R. WILSON  
SECRETARY

PETER A. HAHN  
TREASURER

May 21, 2025

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
Email: [REDACTED]  
Phone: 850-283-2714

**Subject:** Tyndall AFB - Bay District School EA, Bay County, Florida  
**THPO Compliance Tracking Number:** 0034295

**In order to expedite the THPO review process:**

1. Please correspond via email and provide documents as attachments,
2. Please send all emails to [REDACTED],
3. Please reference the THPO Compliance Tracking Number if one has been assigned.

Dear Edwin Wallace:

Thank you for contacting the Seminole Tribe of Florida Tribal Historic Preservation Office (STOF THPO) Compliance Section regarding the *Tyndall AFB - Bay District School EA, Bay County, Florida*.

The proposed undertaking does fall within the STOF Area of Interest. We have reviewed the documents and additional information that you have kindly provided and completed our

assessment pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) as amended and its implementing regulations (36 CFR 800). We have no objections or other comments at this time. Please notify our office if any archaeological, historical, and/or burial resources are inadvertently discovered during project implementation and feel free to contact us with any questions or concerns.

Sincerely,  
Victoria L. Menchaca, MA, Compliance Analyst II  
STOF THPO, Compliance Section  
Phone: 863-458-8195  
Email: [REDACTED]

**From:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Sent:** Wednesday, May 21, 2025 1:48 PM  
**To:** Victoria Menchaca [REDACTED]  
**Cc:** THPO Compliance [REDACTED]; Danielle Simon  
[REDACTED]  
**Subject:** RE: Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL

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Ms. Menchaca,

Thank you for the response to the undertaking, I have attached a copy of the survey report that covers that area. Please let me know if the submitted information is sufficient for your request.

Sincerely,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714

**From:** Victoria Menchaca [REDACTED]  
**Sent:** Wednesday, May 21, 2025 12:32 PM  
**To:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Cc:** THPO Compliance [REDACTED]; Danielle Simon  
[REDACTED]  
**Subject:** [Non-DoD Source] RE: Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL

SEMINOLE TRIBE OF FLORIDA  
TRIBAL HISTORIC PRESERVATION OFFICE

SEMINOLE TRIBE OF FLORIDA

TRIBAL HISTORIC  
PRESERVATION OFFICE

THPO PHONE: (863) 983-6549

THPO TRIBAL CONSULTATION EMAIL:  
THPOCOMPLIANCE@SEMTRIBE.COM

THPO WEBSITE: WWW.STOFTHPO.COM



TRIBAL OFFICERS

MARCELLUS W. OSCEOLA JR.  
CHAIRMAN

HOLLY TIGER  
VICE CHAIRWOMAN

NAOMI R. WILSON  
SECRETARY

PETER A. HAHN  
TREASURER

May 21, 2025

Edwin Wallace  
Cultural Resources Program  
Tyndall Air Force Base  
Email: [REDACTED]  
Phone: 850-283-2714

**Subject:** Tyndall AFB - Bay District School EA, Bay County, Florida  
**THPO Compliance Tracking Number:** 0034295

**In order to expedite the THPO review process:**

1. Please correspond via email and provide documents as attachments,
2. Please send all emails to [REDACTED],
3. Please reference the THPO Compliance Tracking Number if one has been assigned.

Dear Edwin Wallace,

Thank you for contacting the Seminole Tribe of Florida Tribal Historic Preservation Office (STOFTHPO) Compliance Section regarding the *Tyndall AFB - Bay District School EA, Bay County, Florida*.

The proposed undertaking does fall within the STOF Area of Interest. We have reviewed the documents that you provided pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) as amended and its implementing regulations (36 CFR 800). For us to complete our review we would like to request the following additional information:

- Has the Cleveland Gate Site (Alternative 1) been subject to a Cultural Resources Assessment Survey that meets the current requirements of the Florida Division of Historic Resources' (FDHR) Module 3 Guidelines for Use by Historic Preservation Professionals?

We look forward to the delivery of the additional information requested. Please continue to consult with our office and feel free to contact us with any questions or concerns.

Sincerely,  
Victoria L. Menchaca, MA, Compliance Analyst II  
STOF THPO, Compliance Section  
Phone: 863-458-8195  
Email: [REDACTED]

---

**From:** WALLACE, EDWIN B CIV USAF ACC 325 CES/CEIEC [REDACTED]  
**Sent:** Tuesday, May 6, 2025 7:18 AM  
**To:** Chairman [REDACTED]; THPO Compliance  
[REDACTED]; Tina Osceola [REDACTED]  
**Cc:** Shrestha, Suni [REDACTED]; Cannella, Michelle  
[REDACTED]  
**Subject:** Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Chairman Osceola,

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If you have any questions, please contact Edwin Wallace at [REDACTED] or 850-283-2714.

Respectfully,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714

**From:** [REDACTED]  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** Environmental Assessment to Lease Property to Construct K-8 School, Tyndall Air Force Base (AFB), Bay County, FL  
**Date:** Tuesday, May 6, 2025 7:15:11 AM  
**Attachments:** [REDACTED]

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Town King Morrow,

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. Attached is the scoping letter and invitation to participate in consultation for the proposed undertaking.

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Respectfully,

Edwin Wallace, GS-12, DAF  
Program Manager NEPA  
325 CES/CEIEC  
100 Checkertail Way, B36233  
Tyndall Air Force Base, FL 32403  
850-283-2714 DSN 523-2714



**DEPARTMENT OF THE AIR FORCE  
325TH FIGHTER WING (ACC)  
TYNDALL AIR FORCE BASE FLORIDA**

Colonel Christian M. Bergtholdt  
Commander  
325th Fighter Wing  
325 Checkertail Way  
Building 1400M, Suite 220  
Tyndall AFB FL 32403-5549

Ryan Morrow, Town King  
Thlopthlocco Tribal Town  
PO Box 188  
Okemah OK 74859-0188

Dear Town King Morrow

Bay District Schools (BDS) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts from the Proposed Action to enter into a lease agreement with the Department of the Air Force (DAF) for a parcel of land on Tyndall Air Force Base (AFB), Bay County, Florida, for the BDS to construct and operate a kindergarten through grade 8 (K–8) educational facility on the parcel. The regional location of Tyndall AFB is shown in Figure 1. The EA is being prepared in compliance with the National Environmental Policy Act (NEPA), as amended by Public Law 118-5; Fiscal Responsibility Act of 2023 (42 United States Code § 4321 *et seq.*); and the DAF’s Environmental Impact Analysis Process (32 Code of Federal Regulations [CFR] Part 989).

The purpose of the Proposed Action is for BDS to build and operate a K–8 school to replace the existing Tyndall Academy (Figure 2). The need for the Proposed Action is to accommodate current and projected student population growth and ensure a high-quality educational environment for the students. The existing Tyndall Academy is over capacity. BDS is using modular units at the school to provide the necessary classroom space. The existing Tyndall Academy is undersized to accommodate Tyndall AFB’s projected population increase from the transition to the F-35 mission and the current population growth of Bay County, exacerbated by the loss of a Bay County middle school in 2018 from Hurricane Michael. The BDS cannot expand the current school at its current location because of the lack of suitable developable space due to environmental restoration that would be disturbed by additional site development.

We contacted you on February 20, 2024, regarding this Proposed Action. Since that time, a third site has been added as a potential location for the school. The three proposed locations for a new Tyndall Academy on Tyndall AFB include the new Cleveland Gate Site (Alternative 1) and the previously identified Youth Center Site (Alternative 2) and Beacon Beach Site (Alternative 3). These sites are shown in Figures 2, 3, 4, and 5.

The Proposed Action includes BDS leasing a parcel of about 40 acres and building an approximately 253,000-square foot K–8 school with the capacity for approximately 1,200 students. The site would be cleared and graded. The school would have an administration office, a cafetorium, classroom buildings, a gymnasium, a media center, and outdoor dining/gathering spaces, playgrounds, and sports fields and facilities. The site would be designed to allow direct public access to after-hours event spaces in the cafetorium and gymnasium while keeping the rest of the school campus secure from unauthorized visitors.

The Proposed Action is considered an undertaking under Section 106 of the National Historic Preservation Act. During the NEPA process, BDS will determine whether the proposed undertaking would have adverse impacts on archaeological resources, architectural resources, traditional cultural properties, or other cultural resources. Tyndall AFB is aware of three archaeological sites that could be affected by the Proposed Action. Archaeological Sites 8BY00153, 8BY00154, and 8BY02721 are near the Beacon Beach Site. Archaeological Sites 8BY00153 and 8BY02721 are not eligible for listing in the National Register of Historic Places (NRHP). A portion of Site 8BY00154 is eligible for the NRHP and the site's 50-meter buffer zone extends into the Beacon Beach Site.

In accordance with Section 106, implementing regulations in 36 CFR Part 800, and Department of Defense (DoD) Instruction 4710.02, *DoD Interactions with Federally Recognized Tribes*, Tyndall AFB is inviting you to participate in government-to-government consultation regarding the proposed undertaking. The DAF is also consulting with the Florida State Historic Preservation Officer with respect to the proposed undertaking.

Please let us know if you are aware of any properties of cultural, historical, or religious significance that could potentially be affected by the proposed undertaking. Additionally, as a stakeholder in the NEPA process, you are requested by the DAF to provide your input in identifying any issues or areas of concern you feel should be addressed in the EA.

The DAF respectfully requests your written comments and other input on the proposed undertaking within 30 days of receipt of this letter so they can be considered during preparation of the Draft EA and Section 106 consultation materials. Responses provided after 30 days will also be considered. The Draft EA will be provided to you for review and comment, when available. Please send your comments or requests for additional information to the Tyndall AFB point of contact, Mr. Edwin Wallace, via email at [REDACTED] or via telephone at (850) 283-2714.

Sincerely

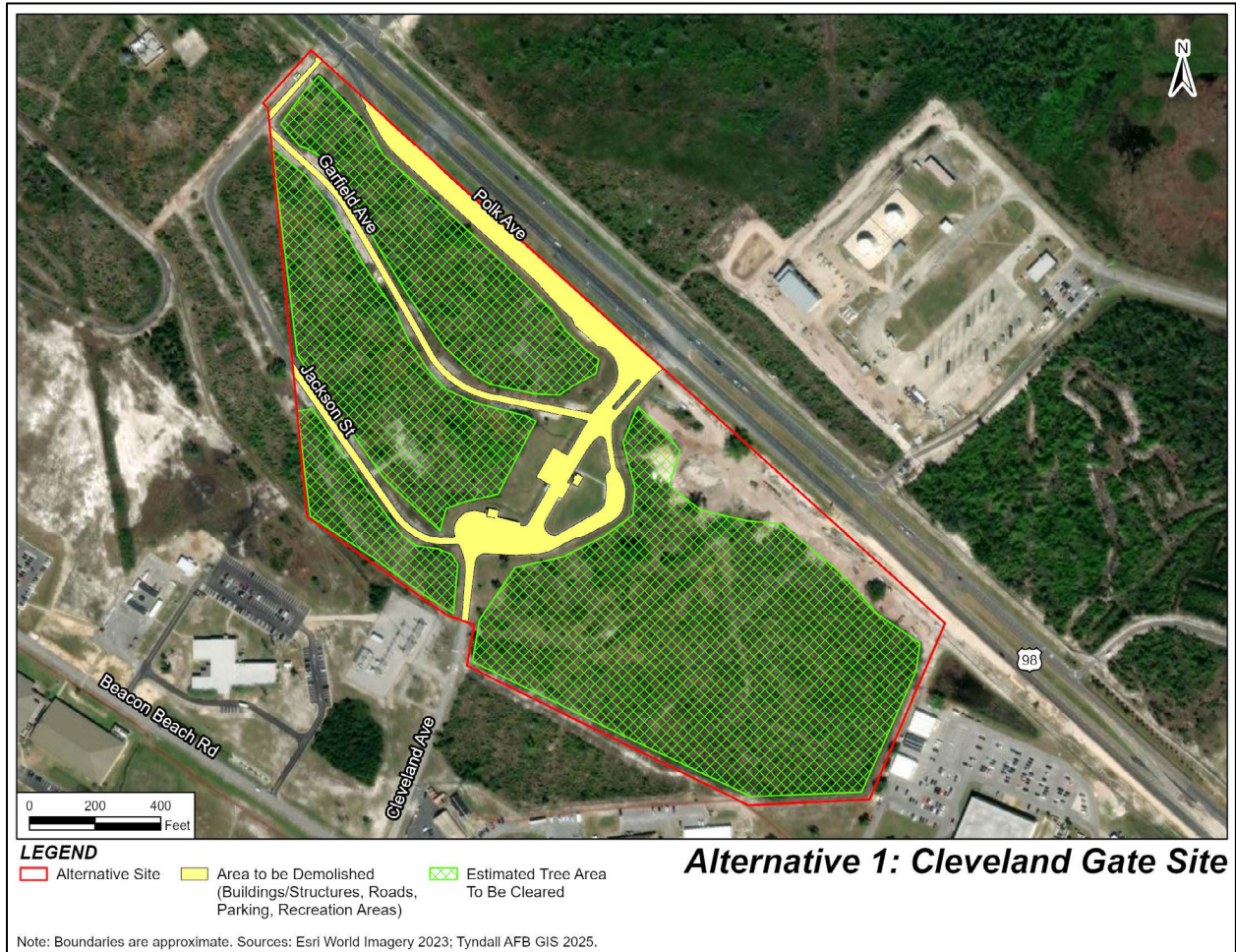
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CHRISTIAN M. BERGTHOLDT, Colonel, USAF  
Commander

5 Attachments:

1. Figure 1. Location of Tyndall Air Force Base
2. Figure 2. Locations of Existing School and Alternative Sites
3. Figure 3. Location of Alternative 1: Cleveland Gate Site
4. Figure 4. Location of Alternative 2: Youth Center Site
5. Figure 5. Location of Alternative 3: Beacon Beach Site

Sent via email [REDACTED]; [REDACTED].

## **APPENDIX D: MAPS OF AREAS TO BE DEMOLISHED OR CLEARED**



**Figure D-1. Alternative 1: Cleveland Gate Site Areas to be Demolished or Cleared.**



**Figure D-2. Alternative 2: Youth Center Site Areas to be Demolished or Cleared.**



**Figure D-3. Alternative 3: Beacon Beach Site Areas to be Demolished.**

## **APPENDIX E: BEST MANAGEMENT PRACTICES**

## Land Use

See Best Management Practices (BMPs) for air quality and noise, which would be implemented to control air emissions and noise during construction for any of the Action Alternative sites.

## Air Quality

To control air emissions during construction, contractors should implement a combination of dust suppression, equipment management, and site planning BMPs. Following is a list of recommended BMP measures:

- **Dust suppression:** Contractors should regularly water exposed soils, stabilize disturbed areas, and cover stockpiles to help reduce fugitive dust. They should also install wind barriers and track-out controls to further prevent dust from leaving the site.
- **Equipment management:** Contractors should use U.S. Environmental Protection Agency (USEPA) Tier 4-compliant machinery, enforce anti-idling policies, and ensure proper maintenance of all vehicles and equipment. When feasible, the contractor should use alternative fuels or electric-powered equipment and retrofit older engines with emission controls to reduce air pollutants.
- **Site planning:** Contractors should apply efficient site logistics such as minimizing on-site traffic, reducing material drop heights, and consolidating deliveries to help lower emissions. Additionally, securing required air permits, conducting air quality monitoring when necessary, and training workers on emission-reduction practices would ensure regulatory compliance and support environmental stewardship throughout the project.

## Noise

Standard BMPs would be implemented during construction to minimize disturbance, including restricting routine heavy-equipment use to normal weekday hours near sensitive areas, maintaining mufflers and noise-control devices, and ensuring personnel use appropriate hearing protection and follow occupational safety requirements.

## Soils

Appropriate safeguards and BMPs would be applied in accordance with the terms of the Construction Generic Permit, including preparing and implementing an Erosion and Sediment Control Plan. BMPs include using caution during excavation to avoid hitting piping networks; setting up decontamination areas; implementing spill containment measures; installing and implementing proper erosion control measures (e.g., mulching, riprap, seeding, silt fences, straw bales, and watering); and meeting water discharge permitting requirements.

## Water Resources

Standard BMPs for the control of erosion and stormwater runoff would be implemented during construction, and post-construction stormwater would be managed in accordance with the Tyndall Air Force Base (AFB) stormwater pollution prevention plan.

## Biological Resources

Biological resources BMPs would include inspection and decontamination of contractor vehicles to minimize the introduction and spread of invasive species.

## Cultural Resources

BMPs differ between alternatives (Table E-1). Regardless of the chosen alternative, Tyndall AFB should consult with relevant stakeholders, including the Florida Division of Historical Resources, and conduct government-to-government consultation with the six Native American tribes with a historic interest in the area, prior to the development of any alternative to adapt suggested BMPs and enact additional BMPs as the stakeholders see fit.

**Table E-1. BMPs for Cultural Resources within the Alternative 1–Alternative 3 APEs**

Alternative 1	Alternative 2	Alternative 3
Qualified archaeological monitor for all ground-disturbing activity in and around site 8BY00172. 1. Monitor must: <ul style="list-style-type: none"> <li>Apply for and receive an ARPA permit; and</li> <li>Follow the Tyndall AFB ICRMP monitoring SOP.</li> </ul> 2. Create an unanticipated discovery plan.	Qualified archaeological monitor for all ground-disturbing activity at Alternative 2 APE. 1. Monitor must: <ul style="list-style-type: none"> <li>Apply for and receive an ARPA permit; and</li> <li>Follow the Tyndall AFB ICRMP monitoring SOP.</li> </ul> 2. Create an unanticipated discovery plan.	SOI-qualified archaeological monitor for all ground-disturbing activity in and around site 8BY00154. 1. Monitor must: <ul style="list-style-type: none"> <li>Apply for and receive an ARPA permit; and</li> <li>Follow the Tyndall AFB ICRMP monitoring SOP.</li> </ul> 2. Stabilize and secure the shoreline adjacent to Alternative 3 to mitigate erosion to site 8BY00154. 3. Do not grade area around/near site 8BY00154. Instead, place a fill layer over the site and pave overtop the layer to protect/avoid disturbing site 8BY00154.

*Notes:* ARPA = Archaeological Resources Protection Act; ICRMP = Integrated Cultural Resources Management Plan; SOI = Secretary of the Interior; SOP = standard operating procedure.

## Hazardous Materials and Hazardous Waste

BMPs for the project sites must focus on minimizing environmental and human health risks during construction and demolition (C&D) activities. Table E-2 lists recommended BMPs.

**Table E-2. Recommended BMPs for Hazardous Materials and Waste**

Category	Key Practices and Requirements
Hazardous material identification and management	Conduct pre-demolition surveys for ACM, LBP, PCBs, contaminated soils, and other hazardous materials. If no survey has been conducted, treat all materials as hazardous. Communicate type, condition, and quantity of hazardous materials to personnel. Require appropriate PPE during demolition and handling. The DAF will either survey structures or treat them as hazardous. Inform workers and ensure hazardous waste is separated and disposed of off-site at approved facilities.
Preconstruction coordination and permitting	Coordinate with Base Environmental Manager before ground disturbance. Obtain and document dig permits prior to subsurface work. Verify that imported fill material is clean and uncontaminated.
Soil disturbance	Analyze soil for relevant contaminants based on past investigations. If unknown, conduct full suite analysis for herbicides, metals, pesticides, SVOCs, total petroleum hydrocarbon (gasoline/diesel), and VOCs. Use DoD Environmental Laboratory Accreditation Program-certified laboratories and approved methods. For PFAS, on-site soil must be managed following the March 2025 DAF <i>Memorandum for Best Management Practices for Addressing Contaminated Soils on Military Construction and Facilities Sustainment, Restoration, and Modernization Projects</i> and current PFAS regulations and best practices (DAF 2025c).

Category	Key Practices and Requirements
Soil management	Determine if excavated soil or groundwater is RCRA hazardous waste. Perform the toxicity characteristic leaching procedure and/or synthetic precipitation leaching procedure for relevant contaminants. Tests identify if leaching potential exceeds thresholds that require hazardous waste classification and disposal.
Stormwater and dewatering management	Pretreat groundwater/stormwater on-site if concentrations exceed NPDES/MS4 permit limits (but are below RCRA thresholds). Implement erosion and sediment controls to prevent contaminant transport off-site.
Waste segregation and disposal	Segregate hazardous and non-hazardous C&D waste. Transport hazardous waste to USEPA-approved TSDFs in accordance with CERCLA and RCRA. Ensure proper labeling, containment, and documentation of waste.

*Notes:* ACM = asbestos-containing materials; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; DAF = Department of the Air Force; LBP = lead-based paint; MS4 = municipal separate storm sewer system; NPDES = National Pollutant Discharge Elimination System; PCB = polychlorinated biphenyl; PFAS = per- and polyfluoroalkyl substances; PPE = personal protective equipment; RCRA = Resource Conservation and Recovery Act; SVOC = semi-volatile organic compound; TSDF = treatment, storage, and disposal facility; VOC = volatile organic compound.

## Infrastructure and Utilities

BMPs for infrastructure planning include a comprehensive assessment of existing utility systems, such as communication, electrical, sewer, stormwater, and water systems, to ensure they can support the proposed development. To effectively reduce the risk of BASH and comply with Tyndall AFB's BASH plan and wildlife hazard management protocols, it is critical to manage standing water features such as detention ponds on or near airfields to deter shorebirds, wading birds, and waterfowl. These bird species pose safety risks due to their size and flocking behaviors. Table E-3 lists recommended BMPs for infrastructure and utilities.

**Table E-3. Recommended BMPs for Infrastructure and Utilities**

BMP Category	Key Practices and Requirements
Drainage management	Eliminate persistent standing water: Regrade or correct low-lying areas that hold water for more than 72 hours after rainfall. Design with surface runoff control: Use graded slopes, subsurface drains, and swales to direct stormwater away from airside areas quickly and effectively. Stormwater modeling: Conduct stormwater modeling during the design phase to assess drainage patterns, flow rates, and runoff volumes.
Restriction on open water bodies	Prohibit new open-air ponds: Avoid creating new permanent open water features near the airfield due to bird attractant risks. Retrofit existing ponds: Steepen side slopes (> 3:1). Install fencing or bird-deterrent netting. Use vegetative buffers to discourage nesting and foraging.
Deterrent measures and behavioral controls	Avoid reliance on netting alone: Water visibility still attracts birds; aim to eliminate or visually obscure water. Deploy active deterrents: Use audio, visual, or pyrotechnic tools to prevent birds from habituating to water features.
Monitoring and maintenance	Routine surveillance: Conduct regular bird activity surveys and integrate findings into the wildlife hazard management plan. Corrective maintenance: Address grading issues, drainage blockages, and erosion that may lead to water pooling.
Regulatory compliance and coordination	Document modifications and justifications: Keep detailed records of drainage changes and bird strike risk evaluations. Grid capacity analysis: Evaluate electrical grid capacity for the Youth Center and Beacon Beach sites during planning.
Sustainability and waste diversion	Solid waste diversion: Construction contractors on DAF projects must separate and recycle C&D waste, including concrete, metals, wood, and asphalt, and reuse materials where feasible to meet federal sustainability targets.

*Note:* DAF = Department of the Air Force.

## Transportation and Traffic

Standard BMPs for the control of traffic would be implemented during construction to avoid construction traffic occurring during peak morning and afternoon traffic hours. Signage would alert drivers of road and lane closures and construction personnel would direct traffic when necessary. Vehicles would be cleaned of excessive amounts of soil and mud before exiting the construction site to prevent it from building up on local roads.

## Safety and Health

Under the Action Alternatives, short-term, less-than-significant adverse effects may occur during construction, primarily from minor demolition and excavation involving hazardous materials such as asbestos-containing materials (ACM), lead-based paint (LBP), polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), and other regulated substances. Table E-4 lists recommended BMPs.

**Table E-4. Recommended BMPs for Safety and Health**

Category	Key Practices and Requirements
Contamination control and exposure prevention	Establish contamination control zones. Use decontamination stations. Implement dust suppression and containment to prevent the spread of hazardous substances.
Contaminated soil workers protection	Comply with OSHA's HAZWOPER standard (29 CFR § 1910.120). Provide required training, monitoring, and PPE for work involving hazardous substances. Apply dust suppression and air monitoring. Document controls in the site-specific HASP. Conduct thorough site assessments before construction. Identify contaminated soil, groundwater, and hazardous materials (e.g., ACM, LBP, and PCBs). Manage on-site soil following the March 2025 DAF <i>Memorandum for Best Management Practices for Addressing Contaminated Soils on Military Construction and Facilities Sustainment, Restoration, and Modernization Projects</i> and current PFAS regulations and best practices (DAF 2025c). Communicate hazards clearly to all workers. Require and enforce the use of proper PPE (e.g., respirators, gloves, and protective suits). Match PPE to contamination type and risk level.
Site access control and public safety measures	Install fencing, signage, and barriers. Clearly mark hazardous zones. Implement traffic control plans to protect workers and the public.
Adhere to setback requirements	The FBC and related fire safety regulations typically require that schools be sited a safe distance away from ASTs containing flammable or hazardous materials, often a minimum of 500 feet depending on the tank size and contents.
Worker safety protocols and monitoring	Enforce PPE use and conduct daily safety briefings. Monitor air quality, noise, and environmental hazards in real time to ensure safe conditions.

*Notes:* AST = aboveground storage tank; CFR = Code of Federal Regulations; FBC = Florida Building Code; HASP = health and safety plan; HAZWOPER = Hazardous Waste Operations and Emergency Response; OSHA = Occupational Safety and Health Administration; PPE = personal protective equipment.

## Protection of Children

To protect the health and safety of children and the general population of Tyndall AFB, BMP safety measures would be implemented under each of the alternatives during construction, such as fencing the construction site; placing “No Trespassing” signs around the construction site; securing construction vehicles and equipment when not in use; and following federal, state, and local safety regulations.

## **APPENDIX F: NATIONAL AMBIENT AIR QUALITY STANDARDS**

**Table F-1. National Ambient Air Quality Standards**

<b>Pollutant</b>	<b>Primary/ Secondary</b>	<b>Averaging Time</b>	<b>Level</b>	<b>Form</b>
CO	Primary	8 hours	9 ppm	Not to be exceeded more than once a year
CO	Primary	1 hour	35 ppm	Not to be exceeded more than once a year
NO <sub>2</sub>	Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
NO <sub>2</sub>	Primary and secondary	Annual	53 ppb	Annual mean
O <sub>3</sub>	Primary and secondary	8 hours	0.070 ppm	Annual fourth highest daily maximum 8-hour concentration, averaged over 3 years
PM <sub>2.5</sub>	Primary	Annual	9 µg/m <sup>3</sup>	Annual mean, averaged over 3 years
PM <sub>2.5</sub>	Secondary	Annual	15 µg/m <sup>3</sup>	Annual mean, averaged over 3 years
PM <sub>2.5</sub>	Primary and secondary	24 hours	35 µg/m <sup>3</sup>	98th percentile, averaged over 3 years
PM <sub>10</sub>	Primary and secondary	24 hours	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year on average over 3 years
Pb	Primary and secondary	Rolling 3-month average	0.15 µg/m <sup>3</sup>	Not to be exceeded
SO <sub>2</sub>	Primary	1 hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
SO <sub>2</sub>	Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Sources: 40 CFR Part 50; USEPA 2024a.

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; ppb = parts per billion; ppm = parts per million.

## **APPENDIX G: AIR CONFORMITY APPLICABILITY MODEL**

# AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

**a. Action Location:**

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

**b. Action Title:** 50-year lease agreement with BDS

**c. Project Number/s (if applicable):** Alternative 1

**d. Projected Action Start Date:** 1 / 2027

**e. Action Description:**

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out.

**2. Air Impact Analysis:** Based on the attainment status at the action location, the requirements of the GCR are:

         applicable  
  X   not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving “steady state” (cCba.e., no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" (cCba.e., not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

# AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

## Analysis Summary:

### 2027

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	6.505	250	No
NOx	7.436	250	No
CO	9.042	250	No
SOx	0.018	250	No
PM 10	206.322	250	No
PM 2.5	0.278	250	No
Pb	0.000	25	No
NH3	0.047	250	No

### 2028

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.090	250	No
NOx	1.004	250	No
CO	1.213	250	No
SOx	0.002	250	No
PM 10	0.058	250	No
PM 2.5	0.034	250	No
Pb	0.000	25	No
NH3	0.018	250	No

### 2029

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.640	250	No
NOx	0.707	250	No
CO	20.683	250	No
SOx	0.035	250	No
PM 10	0.144	250	No
PM 2.5	0.062	250	No
Pb	0.000	25	No
NH3	0.223	250	No

### 2030 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.640	250	No
NOx	0.707	250	No
CO	20.683	250	No
SOx	0.035	250	No

**AIR CONFORMITY APPLICABILITY MODEL REPORT  
RECORD OF AIR ANALYSIS (ROAA)**

<b>PM 10</b>	0.144	250	No
<b>PM 2.5</b>	0.062	250	No
<b>Pb</b>	0.000	25	No
<b>NH3</b>	0.223	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

DCooper, Civ

Jul 22 2025

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**Name, Title**

**Date**

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## 1. General Information

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### - Action Location

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

- **Action Title:** 50-year lease agreement with BDS

- **Project Number/s (if applicable):** Alternative 1

- **Projected Action Start Date:** 1 / 2027

### - Action Purpose and Need:

The Proposed Action is for DAF to enter into a 50-year lease agreement with BDS for an approximately 40-acre parcel on Tyndall AFB, on which BDS would build and operate the Tyndall Academy.

### - Action Description:

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out.

Report generated with ACAM version: 5.0.24a

### - Activity List:

	Activity Type	Activity Title
2.	Personnel	900
3.	Construction / Demolition	Tyndall Academy
4.	Emergency Generator	Emergency Genset
5.	Tanks	Fuel Tanks

Emission factors and air emission estimating methods come from the United States Air Force’s Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

## 2. Personnel

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### 2.1 General Information & Timeline Assumptions

- **Add or Remove Activity from Baseline?** Add

### - Activity Location

**County:** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

- **Activity Title:** 900

### - Activity Description:

Students drop off

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Activity Start Date**

**Start Month:** 1  
**Start Year:** 2029

**- Activity End Date**

**Indefinite:** Yes  
**End Month:** N/A  
**End Year:** N/A

**- Activity Emissions of Criteria Pollutants:**

Pollutant	Emissions Per Year (TONs)
VOC	1.616554
SO <sub>x</sub>	0.016336
NO <sub>x</sub>	0.613731
CO	20.620569

Pollutant	Emissions Per Year (TONs)
PM 10	0.123900
PM 2.5	0.042034
Pb	0.000000
NH <sub>3</sub>	0.223172

**- Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Emissions Per Year (TONs)
CH <sub>4</sub>	0.078832
N <sub>2</sub> O	0.031127

Pollutant	Emissions Per Year (TONs)
CO <sub>2</sub>	1951.503888
CO <sub>2</sub> e	1961.962466

## 2.2 Personnel Assumptions

**- Number of Personnel**

**Active Duty Personnel:** 0  
**Civilian Personnel:** 900  
**Support Contractor Personnel:** 15  
**Air National Guard (ANG) Personnel:** 0  
**Reserve Personnel:** 0

**- Default Settings Used:** Yes

**- Average Personnel Round Trip Commute (mile):** 20 (default)

**- Personnel Work Schedule**

**Active Duty Personnel:** 5 Days Per Week (default)  
**Civilian Personnel:** 5 Days Per Week (default)  
**Support Contractor Personnel:** 5 Days Per Week (default)  
**Air National Guard (ANG) Personnel:** 4 Days Per Week (default)  
**Reserve Personnel:** 4 Days Per Month (default)

## 2.3 Personnel On Road Vehicle Mixture

**- On Road Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	37.55	60.32	0	0.03	0.2	0	1.9
GOVs	54.49	37.73	4.67	0	0	3.11	0

## 2.4 Personnel Emission Factor(s)

**- On Road Vehicle Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.29231	0.00264	0.08459	4.07161	0.02260	0.00719	0.04737

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

LDGT	0.23822	0.00341	0.12388	3.61183	0.02397	0.00809	0.03931
HDGV	0.73029	0.00741	0.45794	8.19297	0.05012	0.02306	0.08552
LDDV	0.08843	0.00131	0.14033	7.39519	0.02511	0.00843	0.01729
LDDT	0.09442	0.00129	0.15867	3.06393	0.02380	0.00861	0.01626
HDDV	0.08344	0.00406	1.95823	1.55513	0.16104	0.06925	0.06795
MC	2.86819	0.00331	0.53419	11.31889	0.03259	0.02177	0.05299

## - On Road Vehicle Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01289	0.00471	315.06622	316.67585
LDGT	0.01356	0.00680	406.83049	409.01267
HDGV	0.04388	0.02324	884.76431	892.15156
LDDV	0.04509	0.00074	389.49533	390.95299
LDDT	0.02111	0.00109	383.62782	384.50716
HDDV	0.01945	0.16714	1211.69126	1256.52882
MC	0.10277	0.00321	390.97165	394.70017

## 2.5 Personnel Formula(s)

### - Personnel Vehicle Miles Travel for Work Days per Year

$$VMT_p = NP * WD * AC$$

VMT<sub>p</sub>: Personnel Vehicle Miles Travel (miles/year)  
 NP: Number of Personnel  
 WD: Work Days per Year  
 AC: Average Commute (miles)

### - Total Vehicle Miles Travel per Year

$$VMT_{Total} = VMT_{AD} + VMT_C + VMT_{SC} + VMT_{ANG} + VMT_{AFRC}$$

VMT<sub>Total</sub>: Total Vehicle Miles Travel (miles)  
 VMT<sub>AD</sub>: Active Duty Personnel Vehicle Miles Travel (miles)  
 VMT<sub>C</sub>: Civilian Personnel Vehicle Miles Travel (miles)  
 VMT<sub>SC</sub>: Support Contractor Personnel Vehicle Miles Travel (miles)  
 VMT<sub>ANG</sub>: Air National Guard Personnel Vehicle Miles Travel (miles)  
 VMT<sub>AFRC</sub>: Reserve Personnel Vehicle Miles Travel (miles)

### - Vehicle Emissions per Year

$$V_{POL} = (VMT_{Total} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>Total</sub>: Total Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Personnel On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

## 3. Construction / Demolition

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### 3.1 General Information & Timeline Assumptions

#### - Activity Location

County: Bay

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**Regulatory Area(s):** NOT IN A REGULATORY AREA

**- Activity Title:** Tyndall Academy

**- Activity Description:**

The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out

**- Activity Start Date**

**Start Month:** 1  
**Start Month:** 2027

**- Activity End Date**

**Indefinite:** False  
**End Month:** 4  
**End Month:** 2028

**- Activity Emissions:**

Pollutant	Total Emissions (TONs)
VOC	6.594043
SO <sub>x</sub>	0.020031
NO <sub>x</sub>	8.439999
CO	10.254540

Pollutant	Total Emissions (TONs)
PM 10	206.379882
PM 2.5	0.312062
Pb	0.000000
NH <sub>3</sub>	0.064144

**- Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Total Emissions (TONs)
CH <sub>4</sub>	0.088508
N <sub>2</sub> O	0.135327

Pollutant	Total Emissions (TONs)
CO <sub>2</sub>	2735.294942
CO <sub>2</sub> e	2773.634323

## 3.1 Demolition Phase

### 3.1.1 Demolition Phase Timeline Assumptions

**- Phase Start Date**

**Start Month:** 1  
**Start Quarter:** 1  
**Start Year:** 2027

**- Phase Duration**

**Number of Month:** 6  
**Number of Days:** 0

### 3.1.2 Demolition Phase Assumptions

**- General Demolition Information**

**Area of Building to be demolished (ft<sup>2</sup>):** 15870  
**Height of Building to be demolished (ft):** 2

**- Default Settings Used:** No

**- Average Day(s) worked per week:** 5

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

**- Vehicle Exhaust**

Average Hauling Truck Capacity (yd<sup>3</sup>): 20  
 Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.1.3 Demolition Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Concrete/Industrial Saws Composite [HP: 33] [LF: 0.73]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.38980	0.00742	3.42957	4.29108	0.07071	0.06505
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.34288	0.00492	3.09108	2.65644	0.13550	0.12466
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gases Pollutant Emission Factors (g/hp-hour)**

Concrete/Industrial Saws Composite [HP: 33] [LF: 0.73]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02330	0.00466	574.33236	576.30332
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02160	0.00432	532.55942	534.38703
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.1.4 Demolition Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

$$PM10_{FD} = (0.00042 * BA * BH) / 2000$$

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)

0.00042: Emission Factor (lb/ft<sup>3</sup>)

BA: Area of Building to be demolished (ft<sup>2</sup>)

BH: Height of Building to be demolished (ft)

2000: Conversion Factor pounds to tons

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building being demolish (ft<sup>2</sup>)

BH: Height of Building being demolish (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards ( 1 yd<sup>3</sup> / 27 ft<sup>3</sup>)

0.25: Volume reduction factor (material reduced by 75% to account for air space)

HC: Average Hauling Truck Capacity (yd<sup>3</sup>)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

**- Worker Trips Emissions per Phase**

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 WD: Number of Total Work Days (days)  
 WT: Average Worker Round Trip Commute (mile)  
 1.25: Conversion Factor Number of Construction Equipment to Number of Works  
 NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

## 3.2 Site Grading Phase

### 3.2.1 Site Grading Phase Timeline Assumptions

**- Phase Start Date**

Start Month: 1  
 Start Quarter: 1  
 Start Year: 2027

**- Phase Duration**

Number of Month: 9  
 Number of Days: 0

### 3.2.2 Site Grading Phase Assumptions

**- General Site Grading Information**

Area of Site to be Graded (ft<sup>2</sup>): 2269373  
 Amount of Material to be Hauled On-Site (yd<sup>3</sup>): 2000  
 Amount of Material to be Hauled Off-Site (yd<sup>3</sup>): 6666

**- Site Grading Default Settings**

Default Settings Used: No  
 Average Day(s) worked per week: 5

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	2	8
Other Construction Equipment Composite	2	8
Rubber Tired Dozers Composite	2	8
Scrapers Composite	4	8
Tractors/Loaders/Backhoes Composite	2	8

**- Vehicle Exhaust**

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Average Hauling Truck Capacity (yd<sup>3</sup>): 20  
 Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.2.3 Site Grading Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Graders Composite [HP: 148] [LF: 0.41]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.29535	0.00490	2.28401	3.40565	0.12705	0.11688
Other Construction Equipment Composite [HP: 82] [LF: 0.42]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.25231	0.00487	2.49971	3.48392	0.13245	0.12186
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.34288	0.00492	3.09108	2.65644	0.13550	0.12466
Scrapers Composite [HP: 423] [LF: 0.48]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.19058	0.00488	1.60937	1.52212	0.06336	0.05829
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)**

Graders Composite [HP: 148] [LF: 0.41]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02155	0.00431	531.25291	533.07604
Other Construction Equipment Composite [HP: 82] [LF: 0.42]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02140	0.00428	527.44206	529.25211
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02160	0.00432	532.55942	534.38703
Scrapers Composite [HP: 423] [LF: 0.48]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02145	0.00429	528.70476	530.51914
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.2.4 Site Grading Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

HA<sub>OnSite</sub>: Amount of Material to be Hauled On-Site (yd<sup>3</sup>)

HA<sub>OffSite</sub>: Amount of Material to be Hauled Off-Site (yd<sup>3</sup>)

HC: Average Hauling Truck Capacity (yd<sup>3</sup>)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

**- Worker Trips Emissions per Phase**

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 WD: Number of Total Work Days (days)  
 WT: Average Worker Round Trip Commute (mile)  
 1.25: Conversion Factor Number of Construction Equipment to Number of Works  
 NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONS)  
 VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

### 3.3 Trenching/Excavating Phase

#### 3.3.1 Trenching / Excavating Phase Timeline Assumptions

**- Phase Start Date**

Start Month: 1  
 Start Quarter: 1  
 Start Year: 2027

**- Phase Duration**

Number of Month: 4  
 Number of Days: 0

#### 3.3.2 Trenching / Excavating Phase Assumptions

**- General Trenching/Excavating Information**

Area of Site to be Trenched/Excavated (ft<sup>2</sup>): 70000  
 Amount of Material to be Hauled On-Site (yd<sup>3</sup>): 4000  
 Amount of Material to be Hauled Off-Site (yd<sup>3</sup>): 1000

**- Trenching Default Settings**

Default Settings Used: No  
 Average Day(s) worked per week: 5

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

**- Vehicle Exhaust**

Average Hauling Truck Capacity (yd<sup>3</sup>): 20

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.3.3 Trenching / Excavating Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Excavators Composite [HP: 36] [LF: 0.38]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.37809	0.00542	3.36699	4.21640	0.08879	0.08169
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.43579	0.00542	3.52468	4.59651	0.09918	0.09125
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)**

Excavators Composite [HP: 36] [LF: 0.38]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02383	0.00477	587.39431	589.41010
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02385	0.00477	587.92708	589.94470
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

**- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)**

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.3.4 Trenching / Excavating Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)  
 20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)  
 ACRE: Total acres (acres)  
 WD: Number of Total Work Days (days)  
 2000: Conversion Factor pounds to tons

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)  
 NE: Number of Equipment  
 WD: Number of Total Work Days (days)  
 H: Hours Worked per Day (hours)  
 HP: Equipment Horsepower  
 LF: Equipment Load Factor  
 EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)  
 0.002205: Conversion Factor grams to pounds  
 2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)  
 HA<sub>OnSite</sub>: Amount of Material to be Hauled On-Site (yd<sup>3</sup>)  
 HA<sub>OffSite</sub>: Amount of Material to be Hauled Off-Site (yd<sup>3</sup>)  
 HC: Average Hauling Truck Capacity (yd<sup>3</sup>)  
 (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)  
 HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

#### - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 WD: Number of Total Work Days (days)  
 WT: Average Worker Round Trip Commute (mile)  
 1.25: Conversion Factor Number of Construction Equipment to Number of Works  
 NE: Number of Construction Equipment



# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

POVs	50.00	50.00	0	0	0	0	0
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**- Vendor Trips**

Average Vendor Round Trip Commute (mile): 40

**- Vendor Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

### 3.4.3 Building Construction Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Cranes Composite [HP: 367] [LF: 0.29]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.19464	0.00487	1.74774	1.62852	0.07179	0.06605
Forklifts Composite [HP: 82] [LF: 0.2]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.22849	0.00487	2.15229	3.56761	0.09240	0.08501
Generator Sets Composite [HP: 14] [LF: 0.74]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.53730	0.00793	4.30480	2.85227	0.17170	0.15796
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005
Welders Composite [HP: 46] [LF: 0.45]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.43501	0.00735	3.46616	4.46084	0.07894	0.07263

**- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)**

Cranes Composite [HP: 367] [LF: 0.29]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02140	0.00428	527.45492	529.26501
Forklifts Composite [HP: 82] [LF: 0.2]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02138	0.00428	527.06992	528.87869
Generator Sets Composite [HP: 14] [LF: 0.74]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02305	0.00461	568.30624	570.25652
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559
Welders Composite [HP: 46] [LF: 0.45]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02305	0.00461	568.29664	570.24689

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.4.4 Building Construction Phase Formula(s)

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft<sup>2</sup>)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft<sup>3</sup> to trips (0.42 trip / 1000 ft<sup>3</sup>)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

#### - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{WT}$ : Worker Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
 $VM$ : Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

**- Vender Trips Emissions per Phase**

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

$VMT_{VT}$ : Vender Trips Vehicle Miles Travel (miles)  
 $BA$ : Area of Building (ft<sup>2</sup>)  
 $BH$ : Height of Building (ft)  
 (0.38 / 1000): Conversion Factor ft<sup>3</sup> to trips (0.38 trip / 1000 ft<sup>3</sup>)  
 $HT$ : Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{VT}$ : Vender Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
 $VM$ : Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

### 3.5 Architectural Coatings Phase

#### 3.5.1 Architectural Coatings Phase Timeline Assumptions

**- Phase Start Date**

**Start Month:** 10  
**Start Quarter:** 1  
**Start Year:** 2027

**- Phase Duration**

**Number of Month:** 3  
**Number of Days:** 0

#### 3.5.2 Architectural Coatings Phase Assumptions

**- General Architectural Coatings Information**

**Building Category:** Non-Residential  
**Total Square Footage (ft<sup>2</sup>):** 487340  
**Number of Units:** N/A

**- Architectural Coatings Default Settings**

**Default Settings Used:** Yes  
**Average Day(s) worked per week:** 5 (default)

**- Worker Trips**

**Average Worker Round Trip Commute (mile):** 20 (default)

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## 3.5.3 Architectural Coatings Phase Emission Factor(s)

### - Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

### - Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

## 3.5.4 Architectural Coatings Phase Formula(s)

### - Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips ( 1 trip / 1 man \* day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft<sup>2</sup>)

800: Conversion Factor square feet to man days ( 1 ft<sup>2</sup> / 1 man \* day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

### - Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC<sub>AC</sub>: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft<sup>2</sup>)

2.0: Conversion Factor total area to coated area (2.0 ft<sup>2</sup> coated area / total area)

0.0116: Emission Factor (lb/ft<sup>2</sup>)

2000: Conversion Factor pounds to tons

## 3.6 Paving Phase

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## 3.6.1 Paving Phase Timeline Assumptions

**- Phase Start Date**

Start Month: 8  
 Start Quarter: 1  
 Start Year: 2027

**- Phase Duration**

Number of Month: 6  
 Number of Days: 0

## 3.6.2 Paving Phase Assumptions

**- General Paving Information**

Paving Area (ft<sup>2</sup>): 340000

**- Paving Default Settings**

Default Settings Used: No  
 Average Day(s) worked per week: 5

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6

**- Vehicle Exhaust**

Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

## 3.6.3 Paving Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Pavers Composite [HP: 81] [LF: 0.42]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.22921	0.00486	2.45013	3.43821	0.11941	0.10986
Paving Equipment Composite [HP: 89] [LF: 0.36]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.18341	0.00488	2.01586	3.40316	0.07465	0.06867
Rollers Composite [HP: 36] [LF: 0.38]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.52865	0.00542	3.57666	4.10537	0.14602	0.13434

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## - Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)

<b>Pavers Composite [HP: 81] [LF: 0.42]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02133	0.00427	525.80912	527.61356
<b>Paving Equipment Composite [HP: 89] [LF: 0.36]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02142	0.00428	528.06776	529.87995
<b>Rollers Composite [HP: 36] [LF: 0.38]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02382	0.00476	587.12246	589.13732

## - Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	<b>VOC</b>	<b>SO<sub>x</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM 10</b>	<b>PM 2.5</b>	<b>NH<sub>3</sub></b>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.6.4 Paving Phase Formula(s)

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft<sup>2</sup>)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

0.25: Thickness of Paving Area (ft)  
(1 / 27): Conversion Factor cubic feet to cubic yards ( 1 yd<sup>3</sup> / 27 ft<sup>3</sup>)  
HC: Average Hauling Truck Capacity (yd<sup>3</sup>)  
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)  
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{VE}$ : Vehicle Exhaust Vehicle Miles Travel (miles)  
0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
2000: Conversion Factor pounds to tons

## - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

$VMT_{WT}$ : Worker Trips Vehicle Miles Travel (miles)  
WD: Number of Total Work Days (days)  
WT: Average Worker Round Trip Commute (mile)  
1.25: Conversion Factor Number of Construction Equipment to Number of Works  
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{VE}$ : Worker Trips Vehicle Miles Travel (miles)  
0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
VM: Worker Trips On Road Vehicle Mixture (%)  
2000: Conversion Factor pounds to tons

## - Off-Gassing Emissions per Phase

$$VOC_P = (2.62 * PA) / 43560 / 2000$$

$VOC_P$ : Paving VOC Emissions (TONs)  
2.62: Emission Factor (lb/acre)  
PA: Paving Area (ft<sup>2</sup>)  
43560: Conversion Factor square feet to acre (43560 ft<sup>2</sup> / acre)  
2000: Conversion Factor square pounds to TONs (2000 lb / TON)

## 4. Emergency Generator

---

### 4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

#### - Activity Location

County: Bay  
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Emergency Genset

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Activity Description:**

**- Activity Start Date**

**Start Month:** 1  
**Start Year:** 2029

**- Activity End Date**

**Indefinite:** Yes  
**End Month:** N/A  
**End Year:** N/A

**- Activity Emissions of Criteria Pollutants:**

Pollutant	Emissions Per Year (TONs)
VOC	0.022599
SO <sub>x</sub>	0.019035
NO <sub>x</sub>	0.093150
CO	0.062208

Pollutant	Emissions Per Year (TONs)
PM 10	0.020331
PM 2.5	0.020331
Pb	0.000000
NH <sub>3</sub>	0.000000

**- Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Emissions Per Year (TONs)
CH <sub>4</sub>	0.000375
N <sub>2</sub> O	0.000075

Pollutant	Emissions Per Year (TONs)
CO <sub>2</sub>	9.315000
CO <sub>2</sub> e	10.773000

## 4.2 Emergency Generator Assumptions

**- Emergency Generator**

**Type of Fuel used in Emergency Generator:** Diesel  
**Number of Emergency Generators:** 4

**- Default Settings Used:** Yes

**- Emergency Generators Consumption**

**Emergency Generator's Horsepower:** 135 (default)  
**Average Operating Hours Per Year (hours):** 30 (default)

## 4.3 Emergency Generator Emission Factor(s)

**- Emergency Generators Criteria Pollutant Emission Factor (lb/hp-hr)**

VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	Pb	NH <sub>3</sub>
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251		

**- Emergency Generators Greenhouse Gasses Pollutant Emission Factor (lb/hp-hr)**

CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
0.000046297	0.000009259	1.15	1.33

## 4.4 Emergency Generator Formula(s)

**- Emergency Generator Emissions per Year**

$$AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$$

AE<sub>POL</sub>: Activity Emissions (TONs per Year)  
 NGEN: Number of Emergency Generators  
 HP: Emergency Generator's Horsepower (hp)  
 OT: Average Operating Hours Per Year (hours)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

EF<sub>POL</sub>: Emission Factor for Pollutant (lb/hp-hr)

## 5. Tanks

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### 5.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Bay

Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Fuel Tanks

- Activity Description:

Genset Tanks

- Activity Start Date

Start Month: 1

Start Year: 2029

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions of Criteria Pollutants:

Pollutant	Emissions Per Year (TONs)
VOC	0.000850
SO <sub>x</sub>	0.000000
NO <sub>x</sub>	0.000000
CO	0.000000

Pollutant	Emissions Per Year (TONs)
PM 10	0.000000
PM 2.5	0.000000
Pb	0.000000
NH <sub>3</sub>	0.000000

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Emissions Per Year (TONs)
CH <sub>4</sub>	0.000000
N <sub>2</sub> O	0.000000

Pollutant	Emissions Per Year (TONs)
CO <sub>2</sub>	0.000000
CO <sub>2</sub> e	0.000000

### 5.2 Tanks Assumptions

- Chemical

Chemical Name: Fuel oil no. 2  
Chemical Category: Petroleum Distillates  
Chemical Density: 7.1  
Vapor Molecular Weight (lb/lb-mole): 130  
Stock Vapor Density (lb/ft<sup>3</sup>): 0.000129553551395334  
Vapor Pressure: 0.0055  
Vapor Space Expansion Factor (dimensionless): 0.068

- Tank

Type of Tank: Horizontal Tank  
Tank Length (ft): 15  
Tank Diameter (ft): 8

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Annual Net Throughput (gallon/year): 1000

## 5.3 Tank Formula(s)

### - Vapor Space Volume

$$VSV = (PI / 4) * D^2 * L / 2$$

VSV: Vapor Space Volume (ft<sup>3</sup>)

PI: PI Math Constant

D<sup>2</sup>: Tank Diameter (ft)

L: Tank Length (ft)

2: Conversion Factor (Vapor Space Volume is assumed to be one-half of the tank volume)

### - Vented Vapor Saturation Factor

$$VVVF = 1 / (1 + (0.053 * VP * L / 2))$$

VVVF: Vented Vapor Saturation Factor (dimensionless)

0.053: Constant

VP: Vapor Pressure (psia)

L: Tank Length (ft)

### - Standing Storage Loss per Year

$$SSL_{VOC} = 365 * VSV * SVD * VSEF * VVVF / 2000$$

SSL<sub>VOC</sub>: Standing Storage Loss Emissions (TONs)

365: Number of Daily Events in a Year (Constant)

VSV: Vapor Space Volume (ft<sup>3</sup>)

SVD: Stock Vapor Density (lb/ft<sup>3</sup>)

VSEF: Vapor Space Expansion Factor (dimensionless)

VVVF: Vented Vapor Saturation Factor (dimensionless)

2000: Conversion Factor pounds to tons

### - Number of Turnovers per Year

$$NT = (7.48 * ANT) / ((PI / 4.0) * D * L)$$

NT: Number of Turnovers per Year

7.48: Constant

ANT: Annual Net Throughput

PI: PI Math Constant

D<sup>2</sup>: Tank Diameter (ft)

L: Tank Length (ft)

### - Working Loss Turnover (Saturation) Factor per Year

$$WLSF = (18 + NT) / (6 * NT)$$

WLSF: Working Loss Turnover (Saturation) Factor per Year

18: Constant

NT: Number of Turnovers per Year

6: Constant

### - Working Loss per Year

$$WL_{VOC} = 0.0010 * VMW * VP * ANT * WLSF / 2000$$

0.0010: Constant

VMW: Vapor Molecular Weight (lb/lb-mole)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VP: Vapor Pressure (psia)

ANT: Annual Net Throughput

WLSF: Working Loss Turnover (Saturation) Factor

2000: Conversion Factor pounds to tons

# AIR CONFORMITY APPLICABILITY MODEL REPORT

## GREENHOUSE GAS (GHG) EMISSIONS

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

**a. Action Location:**

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

**b. Action Title:** 50-year lease agreement with BDS

**c. Project Number/s (if applicable):** Alternative 1

**d. Projected Action Start Date:** 1 / 2027

**e. Action Description:**

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K-8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out.

**2. Analysis:** Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

### GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO<sub>2</sub> equivalents (CO<sub>2</sub>e). The CO<sub>2</sub>e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases; the higher the GWP, the more that gas contributes to climate change in comparison to CO<sub>2</sub>. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO<sub>2</sub>e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO<sub>2</sub>e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO<sub>2</sub>e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require

# AIR CONFORMITY APPLICABILITY MODEL REPORT GREENHOUSE GAS (GHG) EMISSIONS

further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2027	2,099	0.07122106	0.08723206	2,124	68,039	No
2028	382	0.00907397	0.03553498	392	68,039	No
2029	1,779	0.07185551	0.02830569	1,790	68,039	No
2030 [SS Year]	1,779	0.07185551	0.02830569	1,790	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. <https://statesummaries.ncics.org/downloads/>).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2027	227,404,647	552,428	58,049	258,255,572
2028	227,404,647	552,428	58,049	258,255,572
2029	227,404,647	552,428	58,049	258,255,572
2030 [SS Year]	227,404,647	552,428	58,049	258,255,572

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2027	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2028	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2029	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2030 [SS Year]	5,136,454,179	25,626,912	1,500,708	6,251,695,230

## GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (Rtba.e., global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG/climate change is global. Therefore, the intensity or degree of the proposed action's GHG/climate change effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

# AIR CONFORMITY APPLICABILITY MODEL REPORT GREENHOUSE GAS (GHG) EMISSIONS

To provide real-world context to the GHG and climate change effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

<b>Total GHG Relative Significance (mton)</b>					
		<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
2027-2030	State Total	909,618,588	2,209,711	232,195	1,033,022,289
2027-2030	U.S. Total	20,545,816,716	102,507,647	6,002,831	25,006,780,918
2027-2030	Action	6,039	0.224006	0.179378	6,096
Percent of State Totals		0.00066392%	0.00001014%	0.00007725%	0.00059007%
Percent of U.S. Totals		0.00002939%	0.00000022%	0.00000299%	0.00002438%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000327%.\*

\* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, <https://www.c2es.org/content/international-emissions>).

# AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

**a. Action Location:**

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

**b. Action Title:** 50-year lease agreement with BDS

**c. Project Number/s (if applicable):** Alternative 2

**d. Projected Action Start Date:** 1 / 2027

**e. Action Description:**

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K-8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K - 5 built first, and the 6 - 8 and sports facilities built later, depending on construction cost. School construction full build-out.

**2. Air Impact Analysis:** Based on the attainment status at the action location, the requirements of the GCR are:

         applicable  
  X   not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" (cCba.e., no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" (cCba.e., not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

# AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

**Analysis Summary:**

### 2027

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	6.267	250	No
NOx	5.490	250	No
CO	6.811	250	No
SOx	0.013	250	No
PM 10	107.359	250	No
PM 2.5	0.196	250	No
Pb	0.000	25	No
NH3	0.037	250	No

### 2028

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.675	250	No
NOx	0.760	250	No
CO	21.469	250	No
SOx	0.036	250	No
PM 10	0.147	250	No
PM 2.5	0.063	250	No
Pb	0.000	25	No
NH3	0.227	250	No

### 2029 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.675	250	No
NOx	0.760	250	No
CO	21.469	250	No
SOx	0.036	250	No
PM 10	0.147	250	No
PM 2.5	0.063	250	No
Pb	0.000	25	No
NH3	0.227	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

**AIR CONFORMITY APPLICABILITY MODEL REPORT  
RECORD OF AIR ANALYSIS (ROAA)**

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## 1. General Information

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### - Action Location

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

- **Action Title:** 50-year lease agreement with BDS

- **Project Number/s (if applicable):** Alternative 2

- **Projected Action Start Date:** 1 / 2027

### - Action Purpose and Need:

The Proposed Action is for DAF to enter into a 50-year lease agreement with BDS for an approximately 40-acre parcel on Tyndall AFB, on which BDS would build and operate the Tyndall Academy.

### - Action Description:

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out.

Report generated with ACAM version: 5.0.24a

### - Activity List:

	Activity Type	Activity Title
2.	Personnel	900
3.	Construction / Demolition	Tyndall Academy
4.	Emergency Generator	Emergency Genset

Emission factors and air emission estimating methods come from the United States Air Force’s Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

## 2. Personnel

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### 2.1 General Information & Timeline Assumptions

- **Add or Remove Activity from Baseline?** Add

### - Activity Location

**County:** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

- **Activity Title:** 900

### - Activity Description:

Students drop off

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Activity Start Date**

Start Month: 1  
Start Year: 2028

**- Activity End Date**

Indefinite: Yes  
End Month: N/A  
End Year: N/A

**- Activity Emissions of Criteria Pollutants:**

Pollutant	Emissions Per Year (TONs)
VOC	1.652387
SO <sub>x</sub>	0.016632
NO <sub>x</sub>	0.666996
CO	21.407230

Pollutant	Emissions Per Year (TONs)
PM 10	0.126205
PM 2.5	0.042373
Pb	0.000000
NH <sub>3</sub>	0.227196

**- Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Emissions Per Year (TONs)
CH <sub>4</sub>	0.082179
N <sub>2</sub> O	0.031830

Pollutant	Emissions Per Year (TONs)
CO <sub>2</sub>	1986.780556
CO <sub>2</sub> e	1997.518617

## 2.2 Personnel Assumptions

**- Number of Personnel**

Active Duty Personnel: 0  
Civilian Personnel: 900  
Support Contractor Personnel: 15  
Air National Guard (ANG) Personnel: 0  
Reserve Personnel: 0

- Default Settings Used: Yes

- Average Personnel Round Trip Commute (mile): 20 (default)

**- Personnel Work Schedule**

Active Duty Personnel: 5 Days Per Week (default)  
Civilian Personnel: 5 Days Per Week (default)  
Support Contractor Personnel: 5 Days Per Week (default)  
Air National Guard (ANG) Personnel: 4 Days Per Week (default)  
Reserve Personnel: 4 Days Per Month (default)

## 2.3 Personnel On Road Vehicle Mixture

**- On Road Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	37.55	60.32	0	0.03	0.2	0	1.9
GOVs	54.49	37.73	4.67	0	0	3.11	0

## 2.4 Personnel Emission Factor(s)

**- On Road Vehicle Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.29751	0.00271	0.09276	4.22334	0.02312	0.00725	0.04806
LDGT	0.24575	0.00346	0.13557	3.76292	0.02437	0.00816	0.04016

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HDGV	0.77698	0.00748	0.50466	8.81287	0.05112	0.02355	0.08642
LDDV	0.08723	0.00132	0.13960	7.05455	0.02489	0.00807	0.01724
LDDT	0.09454	0.00130	0.16626	3.08686	0.02388	0.00861	0.01647
HDDV	0.09364	0.00413	2.14472	1.59410	0.16655	0.07424	0.06741
MC	2.88590	0.00331	0.53524	11.41928	0.03274	0.02177	0.05273

## - On Road Vehicle Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01347	0.00481	323.08314	324.73425
LDGT	0.01422	0.00696	412.97138	415.21502
HDGV	0.04653	0.02398	892.46654	900.12332
LDDV	0.04486	0.00074	390.79309	392.24412
LDDT	0.02164	0.00109	388.87030	389.76464
HDDV	0.01975	0.16594	1230.06732	1274.59399
MC	0.10388	0.00321	390.94360	394.70382

## 2.5 Personnel Formula(s)

### - Personnel Vehicle Miles Travel for Work Days per Year

$$VMT_p = NP * WD * AC$$

VMT<sub>p</sub>: Personnel Vehicle Miles Travel (miles/year)

NP: Number of Personnel

WD: Work Days per Year

AC: Average Commute (miles)

### - Total Vehicle Miles Travel per Year

$$VMT_{Total} = VMT_{AD} + VMT_C + VMT_{SC} + VMT_{ANG} + VMT_{AFRC}$$

VMT<sub>Total</sub>: Total Vehicle Miles Travel (miles)

VMT<sub>AD</sub>: Active Duty Personnel Vehicle Miles Travel (miles)

VMT<sub>C</sub>: Civilian Personnel Vehicle Miles Travel (miles)

VMT<sub>SC</sub>: Support Contractor Personnel Vehicle Miles Travel (miles)

VMT<sub>ANG</sub>: Air National Guard Personnel Vehicle Miles Travel (miles)

VMT<sub>AFRC</sub>: Reserve Personnel Vehicle Miles Travel (miles)

### - Vehicle Emissions per Year

$$V_{POL} = (VMT_{Total} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>Total</sub>: Total Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

VM: Personnel On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

## 3. Construction / Demolition

---

### 3.1 General Information & Timeline Assumptions

#### - Activity Location

County: Bay

Regulatory Area(s): NOT IN A REGULATORY AREA

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- **Activity Title:** Tyndall Academy

- **Activity Description:**

The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out

- **Activity Start Date**

**Start Month:** 1  
**Start Month:** 2027

- **Activity End Date**

**Indefinite:** False  
**End Month:** 12  
**End Month:** 2027

- **Activity Emissions:**

Pollutant	Total Emissions (TONs)
VOC	6.267287
SO <sub>x</sub>	0.012828
NO <sub>x</sub>	5.490201
CO	6.811137

Pollutant	Total Emissions (TONs)
PM 10	107.358659
PM 2.5	0.195767
Pb	0.000000
NH <sub>3</sub>	0.036865

- **Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Total Emissions (TONs)
CH <sub>4</sub>	0.056228
N <sub>2</sub> O	0.078157

Pollutant	Total Emissions (TONs)
CO <sub>2</sub>	1700.947993
CO <sub>2</sub> e	1723.233791

## 3.1 Demolition Phase

### 3.1.1 Demolition Phase Timeline Assumptions

- **Phase Start Date**

**Start Month:** 1  
**Start Quarter:** 1  
**Start Year:** 2027

- **Phase Duration**

**Number of Month:** 6  
**Number of Days:** 0

### 3.1.2 Demolition Phase Assumptions

- **General Demolition Information**

**Area of Building to be demolished (ft<sup>2</sup>):** 5320  
**Height of Building to be demolished (ft):** 3

- **Default Settings Used:** No

- **Average Day(s) worked per week:** 5

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

**- Vehicle Exhaust**

Average Hauling Truck Capacity (yd<sup>3</sup>): 40  
 Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 20

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.1.3 Demolition Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Concrete/Industrial Saws Composite [HP: 33] [LF: 0.73]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.38980	0.00742	3.42957	4.29108	0.07071	0.06505
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.34288	0.00492	3.09108	2.65644	0.13550	0.12466
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gases Pollutant Emission Factors (g/hp-hour)**

Concrete/Industrial Saws Composite [HP: 33] [LF: 0.73]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02330	0.00466	574.33236	576.30332
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02160	0.00432	532.55942	534.38703
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684

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MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245
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## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.1.4 Demolition Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

$$PM10_{FD} = (0.00042 * BA * BH) / 2000$$

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)  
 0.00042: Emission Factor (lb/ft<sup>3</sup>)  
 BA: Area of Building to be demolished (ft<sup>2</sup>)  
 BH: Height of Building to be demolished (ft)  
 2000: Conversion Factor pounds to tons

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)  
 NE: Number of Equipment  
 WD: Number of Total Work Days (days)  
 H: Hours Worked per Day (hours)  
 HP: Equipment Horsepower  
 LF: Equipment Load Factor  
 EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)  
 0.002205: Conversion Factor grams to pounds  
 2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)  
 BA: Area of Building being demolish (ft<sup>2</sup>)  
 BH: Height of Building being demolish (ft)  
 (1 / 27): Conversion Factor cubic feet to cubic yards ( 1 yd<sup>3</sup> / 27 ft<sup>3</sup>)  
 0.25: Volume reduction factor (material reduced by 75% to account for air space)  
 HC: Average Hauling Truck Capacity (yd<sup>3</sup>)  
 (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)  
 HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Vehicle Exhaust On Road Vehicle Mixture (%)

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2000: Conversion Factor pounds to tons

**- Worker Trips Emissions per Phase**

$$VMT_{WT} = WD * WT * 1.25 * NE$$

- VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
- WD: Number of Total Work Days (days)
- WT: Average Worker Round Trip Commute (mile)
- 1.25: Conversion Factor Number of Construction Equipment to Number of Works
- NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

- V<sub>POL</sub>: Vehicle Emissions (TONs)
- VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
- 0.002205: Conversion Factor grams to pounds
- EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)
- VM: Worker Trips On Road Vehicle Mixture (%)
- 2000: Conversion Factor pounds to tons

## 3.2 Site Grading Phase

### 3.2.1 Site Grading Phase Timeline Assumptions

**- Phase Start Date**

Start Month: 1  
 Start Quarter: 1  
 Start Year: 2027

**- Phase Duration**

Number of Month: 6  
 Number of Days: 0

### 3.2.2 Site Grading Phase Assumptions

**- General Site Grading Information**

Area of Site to be Graded (ft<sup>2</sup>): 1724401  
 Amount of Material to be Hauled On-Site (yd<sup>3</sup>): 10000  
 Amount of Material to be Hauled Off-Site (yd<sup>3</sup>): 12000

**- Site Grading Default Settings**

Default Settings Used: No  
 Average Day(s) worked per week: 5

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	1	8
Graders Composite	1	8
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	2	8
Scrapers Composite	3	8
Tractors/Loaders/Backhoes Composite	2	8

**- Vehicle Exhaust**

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Average Hauling Truck Capacity (yd<sup>3</sup>): 20  
 Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDTV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDTV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.2.3 Site Grading Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

<b>Excavators Composite [HP: 36] [LF: 0.38]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.37809	0.00542	3.36699	4.21640	0.08879	0.08169
<b>Graders Composite [HP: 148] [LF: 0.41]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.29535	0.00490	2.28401	3.40565	0.12705	0.11688
<b>Other Construction Equipment Composite [HP: 82] [LF: 0.42]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.25231	0.00487	2.49971	3.48392	0.13245	0.12186
<b>Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.34288	0.00492	3.09108	2.65644	0.13550	0.12466
<b>Scrapers Composite [HP: 423] [LF: 0.48]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.19058	0.00488	1.60937	1.52212	0.06336	0.05829
<b>Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gases Pollutant Emission Factors (g/hp-hour)**

<b>Excavators Composite [HP: 36] [LF: 0.38]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02383	0.00477	587.39431	589.41010
<b>Graders Composite [HP: 148] [LF: 0.41]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02155	0.00431	531.25291	533.07604
<b>Other Construction Equipment Composite [HP: 82] [LF: 0.42]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02140	0.00428	527.44206	529.25211
<b>Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02160	0.00432	532.55942	534.38703
<b>Scrapers Composite [HP: 423] [LF: 0.48]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02145	0.00429	528.70476	530.51914
<b>Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e

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Emission Factors	0.02148	0.00430	529.61807	531.43559
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**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

**- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)**

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.2.4 Site Grading Phase Formula(s)

**- Fugitive Dust Emissions per Phase**

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

- PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)
- 20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)
- ACRE: Total acres (acres)
- WD: Number of Total Work Days (days)
- 2000: Conversion Factor pounds to tons

**- Construction Exhaust Emissions per Phase**

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

- CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)
- NE: Number of Equipment
- WD: Number of Total Work Days (days)
- H: Hours Worked per Day (hours)
- HP: Equipment Horsepower
- LF: Equipment Load Factor
- EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)
- 0.002205: Conversion Factor grams to pounds
- 2000: Conversion Factor pounds to tons

**- Vehicle Exhaust Emissions per Phase**

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

- VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)
- HA<sub>OnSite</sub>: Amount of Material to be Hauled On-Site (yd<sup>3</sup>)
- HA<sub>OffSite</sub>: Amount of Material to be Hauled Off-Site (yd<sup>3</sup>)
- HC: Average Hauling Truck Capacity (yd<sup>3</sup>)
- (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)
- HT: Average Hauling Truck Round Trip Commute (mile/trip)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

- V<sub>POL</sub>: Vehicle Emissions (TONs)
- VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)
- 0.002205: Conversion Factor grams to pounds
- EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)
- VM: Vehicle Exhaust On Road Vehicle Mixture (%)
- 2000: Conversion Factor pounds to tons

**- Worker Trips Emissions per Phase**

$$VMT_{WT} = WD * WT * 1.25 * NE$$

- VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
- WD: Number of Total Work Days (days)
- WT: Average Worker Round Trip Commute (mile)
- 1.25: Conversion Factor Number of Construction Equipment to Number of Works
- NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

- V<sub>POL</sub>: Vehicle Emissions (TONs)
- VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
- 0.002205: Conversion Factor grams to pounds
- EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)
- VM: Worker Trips On Road Vehicle Mixture (%)
- 2000: Conversion Factor pounds to tons

### 3.3 Trenching/Excavating Phase

#### 3.3.1 Trenching / Excavating Phase Timeline Assumptions

**- Phase Start Date**

- Start Month: 1
- Start Quarter: 1
- Start Year: 2027

**- Phase Duration**

- Number of Month: 6
- Number of Days: 0

#### 3.3.2 Trenching / Excavating Phase Assumptions

**- General Trenching/Excavating Information**

- Area of Site to be Trenched/Excavated (ft<sup>2</sup>): 70000
- Amount of Material to be Hauled On-Site (yd<sup>3</sup>): 4000
- Amount of Material to be Hauled Off-Site (yd<sup>3</sup>): 2000

**- Trenching Default Settings**

- Default Settings Used: No
- Average Day(s) worked per week: 5

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day

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Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

**- Vehicle Exhaust**

Average Hauling Truck Capacity (yd<sup>3</sup>): 20  
Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.3.3 Trenching / Excavating Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Excavators Composite [HP: 36] [LF: 0.38]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.37809	0.00542	3.36699	4.21640	0.08879	0.08169
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.43579	0.00542	3.52468	4.59651	0.09918	0.09125
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)**

Excavators Composite [HP: 36] [LF: 0.38]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02383	0.00477	587.39431	589.41010
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02385	0.00477	587.92708	589.94470
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HdGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

**- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)**

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	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.3.4 Trenching / Excavating Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

HA<sub>OnSite</sub>: Amount of Material to be Hauled On-Site (yd<sup>3</sup>)

HA<sub>OffSite</sub>: Amount of Material to be Hauled Off-Site (yd<sup>3</sup>)

HC: Average Hauling Truck Capacity (yd<sup>3</sup>)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

#### - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 WD: Number of Total Work Days (days)  
 WT: Average Worker Round Trip Commute (mile)  
 1.25: Conversion Factor Number of Construction Equipment to Number of Works  
 NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>VE</sub>: Worker Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

## 3.4 Building Construction Phase

### 3.4.1 Building Construction Phase Timeline Assumptions

#### - Phase Start Date

Start Month: 1  
 Start Quarter: 1  
 Start Year: 2027

#### - Phase Duration

Number of Month: 12  
 Number of Days: 0

### 3.4.2 Building Construction Phase Assumptions

#### - General Building Construction Information

Building Category: Office or Industrial  
 Area of Building (ft<sup>2</sup>): 487340  
 Height of Building (ft): 40  
 Number of Units: N/A

#### - Building Construction Default Settings

Default Settings Used: Yes  
 Average Day(s) worked per week: 5 (default)

#### - Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Cranes Composite	1	7
Forklifts Composite	3	8
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	3	7
Welders Composite	1	8

#### - Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

#### - Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Worker Trips**

Average Worker Round Trip Commute (mile): 20 (default)

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

**- Vendor Trips**

Average Vendor Round Trip Commute (mile): 40 (default)

**- Vendor Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

### 3.4.3 Building Construction Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)**

<b>Cranes Composite [HP: 367] [LF: 0.29]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.19464	0.00487	1.74774	1.62852	0.07179	0.06605
<b>Forklifts Composite [HP: 82] [LF: 0.2]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.22849	0.00487	2.15229	3.56761	0.09240	0.08501
<b>Generator Sets Composite [HP: 14] [LF: 0.74]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.53730	0.00793	4.30480	2.85227	0.17170	0.15796
<b>Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005
<b>Welders Composite [HP: 46] [LF: 0.45]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.43501	0.00735	3.46616	4.46084	0.07894	0.07263

**- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)**

<b>Cranes Composite [HP: 367] [LF: 0.29]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02140	0.00428	527.45492	529.26501
<b>Forklifts Composite [HP: 82] [LF: 0.2]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02138	0.00428	527.06992	528.87869
<b>Generator Sets Composite [HP: 14] [LF: 0.74]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02305	0.00461	568.30624	570.25652
<b>Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559
<b>Welders Composite [HP: 46] [LF: 0.45]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02305	0.00461	568.29664	570.24689

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984

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LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

### - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.4.4 Building Construction Phase Formula(s)

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft<sup>2</sup>)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft<sup>3</sup> to trips (0.42 trip / 1000 ft<sup>3</sup>)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

#### - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

WT: Average Worker Round Trip Commute (mile)  
1.25: Conversion Factor Number of Construction Equipment to Number of Works  
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{WT}$ : Worker Trips Vehicle Miles Travel (miles)  
0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
VM: Worker Trips On Road Vehicle Mixture (%)  
2000: Conversion Factor pounds to tons

## - Vender Trips Emissions per Phase

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

$VMT_{VT}$ : Vender Trips Vehicle Miles Travel (miles)  
BA: Area of Building (ft<sup>2</sup>)  
BH: Height of Building (ft)  
(0.38 / 1000): Conversion Factor ft<sup>3</sup> to trips (0.38 trip / 1000 ft<sup>3</sup>)  
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{VT}$ : Vender Trips Vehicle Miles Travel (miles)  
0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
VM: Worker Trips On Road Vehicle Mixture (%)  
2000: Conversion Factor pounds to tons

## 3.5 Architectural Coatings Phase

### 3.5.1 Architectural Coatings Phase Timeline Assumptions

#### - Phase Start Date

Start Month: 1  
Start Quarter: 1  
Start Year: 2027

#### - Phase Duration

Number of Month: 12  
Number of Days: 0

### 3.5.2 Architectural Coatings Phase Assumptions

#### - General Architectural Coatings Information

Building Category: Non-Residential  
Total Square Footage (ft<sup>2</sup>): 487340  
Number of Units: N/A

#### - Architectural Coatings Default Settings

Default Settings Used: No  
Average Day(s) worked per week: 5

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.5.3 Architectural Coatings Phase Emission Factor(s)

**- Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

**- Worker Trips Greenhouse Gasses Emission Factors (grams/mile)**

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.5.4 Architectural Coatings Phase Formula(s)

**- Worker Trips Emissions per Phase**

$$VMT_{WT} = (1 * WT * PA) / 800$$

- VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
- 1: Conversion Factor man days to trips ( 1 trip / 1 man \* day)
- WT: Average Worker Round Trip Commute (mile)
- PA: Paint Area (ft<sup>2</sup>)
- 800: Conversion Factor square feet to man days ( 1 ft<sup>2</sup> / 1 man \* day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

- V<sub>POL</sub>: Vehicle Emissions (TONs)
- VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)
- 0.002205: Conversion Factor grams to pounds
- EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)
- VM: Worker Trips On Road Vehicle Mixture (%)
- 2000: Conversion Factor pounds to tons

**- Off-Gassing Emissions per Phase**

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

- VOC<sub>AC</sub>: Architectural Coating VOC Emissions (TONs)
- BA: Area of Building (ft<sup>2</sup>)
- 2.0: Conversion Factor total area to coated area (2.0 ft<sup>2</sup> coated area / total area)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

0.0116: Emission Factor (lb/ft<sup>2</sup>)  
 2000: Conversion Factor pounds to tons

## 3.6 Paving Phase

### 3.6.1 Paving Phase Timeline Assumptions

**- Phase Start Date**

Start Month: 1  
 Start Quarter: 1  
 Start Year: 2027

**- Phase Duration**

Number of Month: 4  
 Number of Days: 0

### 3.6.2 Paving Phase Assumptions

**- General Paving Information**

Paving Area (ft<sup>2</sup>): 330000

**- Paving Default Settings**

Default Settings Used: No  
 Average Day(s) worked per week: 5

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6

**- Vehicle Exhaust**

Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.6.3 Paving Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Pavers Composite [HP: 81] [LF: 0.42]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.22921	0.00486	2.45013	3.43821	0.11941	0.10986
Paving Equipment Composite [HP: 89] [LF: 0.36]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5

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Emission Factors	0.18341	0.00488	2.01586	3.40316	0.07465	0.06867
<b>Rollers Composite [HP: 36] [LF: 0.38]</b>						
	<b>VOC</b>	<b>SO<sub>x</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM 10</b>	<b>PM 2.5</b>
Emission Factors	0.52865	0.00542	3.57666	4.10537	0.14602	0.13434

## - Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)

<b>Pavers Composite [HP: 81] [LF: 0.42]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02133	0.00427	525.80912	527.61356
<b>Paving Equipment Composite [HP: 89] [LF: 0.36]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02142	0.00428	528.06776	529.87995
<b>Rollers Composite [HP: 36] [LF: 0.38]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02382	0.00476	587.12246	589.13732

## - Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	<b>VOC</b>	<b>SO<sub>x</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM 10</b>	<b>PM 2.5</b>	<b>NH<sub>3</sub></b>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.6.4 Paving Phase Formula(s)

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)  
PA: Paving Area (ft<sup>2</sup>)  
0.25: Thickness of Paving Area (ft)  
(1 / 27): Conversion Factor cubic feet to cubic yards ( 1 yd<sup>3</sup> / 27 ft<sup>3</sup>)  
HC: Average Hauling Truck Capacity (yd<sup>3</sup>)  
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)  
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)  
0.002205: Conversion Factor grams to pounds  
EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
2000: Conversion Factor pounds to tons

## - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
WD: Number of Total Work Days (days)  
WT: Average Worker Round Trip Commute (mile)  
1.25: Conversion Factor Number of Construction Equipment to Number of Works  
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
VMT<sub>VE</sub>: Worker Trips Vehicle Miles Travel (miles)  
0.002205: Conversion Factor grams to pounds  
EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
VM: Worker Trips On Road Vehicle Mixture (%)  
2000: Conversion Factor pounds to tons

## - Off-Gassing Emissions per Phase

$$VOC_P = (2.62 * PA) / 43560 / 2000$$

VOC<sub>P</sub>: Paving VOC Emissions (TONs)  
2.62: Emission Factor (lb/acre)  
PA: Paving Area (ft<sup>2</sup>)  
43560: Conversion Factor square feet to acre (43560 ft<sup>2</sup> / acre)  
2000: Conversion Factor square pounds to TONs (2000 lb / TON)

## 4. Emergency Generator

---

### 4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline?    Add

- Activity Location

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**County:** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

- **Activity Title:** Emergency Genset

- **Activity Description:**

- **Activity Start Date**

**Start Month:** 1  
**Start Year:** 2028

- **Activity End Date**

**Indefinite:** Yes  
**End Month:** N/A  
**End Year:** N/A

- **Activity Emissions of Criteria Pollutants:**

Pollutant	Emissions Per Year (TONs)
VOC	0.022599
SO <sub>x</sub>	0.019035
NO <sub>x</sub>	0.093150
CO	0.062208

Pollutant	Emissions Per Year (TONs)
PM 10	0.020331
PM 2.5	0.020331
Pb	0.000000
NH <sub>3</sub>	0.000000

- **Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Emissions Per Year (TONs)
CH <sub>4</sub>	0.000375
N <sub>2</sub> O	0.000075

Pollutant	Emissions Per Year (TONs)
CO <sub>2</sub>	9.315000
CO <sub>2</sub> e	10.773000

## 4.2 Emergency Generator Assumptions

- **Emergency Generator**

**Type of Fuel used in Emergency Generator:** Diesel  
**Number of Emergency Generators:** 4

- **Default Settings Used:** Yes

- **Emergency Generators Consumption**

**Emergency Generator's Horsepower:** 135 (default)  
**Average Operating Hours Per Year (hours):** 30 (default)

## 4.3 Emergency Generator Emission Factor(s)

- **Emergency Generators Criteria Pollutant Emission Factor (lb/hp-hr)**

VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	Pb	NH <sub>3</sub>
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251		

- **Emergency Generators Greenhouse Gasses Pollutant Emission Factor (lb/hp-hr)**

CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
0.000046297	0.000009259	1.15	1.33

## 4.4 Emergency Generator Formula(s)

- **Emergency Generator Emissions per Year**

$$AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$$

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

AE<sub>POL</sub>: Activity Emissions (TONs per Year)  
NGEN: Number of Emergency Generators  
HP: Emergency Generator's Horsepower (hp)  
OT: Average Operating Hours Per Year (hours)  
EF<sub>POL</sub>: Emission Factor for Pollutant (lb/hp-hr)

# AIR CONFORMITY APPLICABILITY MODEL REPORT

## GREENHOUSE GAS (GHG) EMISSIONS

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

**a. Action Location:**

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

**b. Action Title:** 50-year lease agreement with BDS

**c. Project Number/s (if applicable):** Alternative 2

**d. Projected Action Start Date:** 1 / 2027

**e. Action Description:**

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out.

**2. Analysis:** Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

### GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO<sub>2</sub> equivalents (CO<sub>2</sub>e). The CO<sub>2</sub>e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases; the higher the GWP, the more that gas contributes to climate change in comparison to CO<sub>2</sub>. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO<sub>2</sub>e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO<sub>2</sub>e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO<sub>2</sub>e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require

# AIR CONFORMITY APPLICABILITY MODEL REPORT

## GREENHOUSE GAS (GHG) EMISSIONS

further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2027	1,543	0.05100917	0.07090296	1,563	68,039	No
2028	1,811	0.07489156	0.02894367	1,822	68,039	No
2029 [SS Year]	1,811	0.07489156	0.02894367	1,822	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. <https://statesummaries.ncics.org/downloads/>).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2027	227,404,647	552,428	58,049	258,255,572
2028	227,404,647	552,428	58,049	258,255,572
2029 [SS Year]	227,404,647	552,428	58,049	258,255,572

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2027	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2028	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2029 [SS Year]	5,136,454,179	25,626,912	1,500,708	6,251,695,230

### GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (Rtba.e., global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG/climate change is global. Therefore, the intensity or degree of the proposed action's GHG/climate change effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG and climate change effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The

# AIR CONFORMITY APPLICABILITY MODEL REPORT GREENHOUSE GAS (GHG) EMISSIONS

following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
2027-2029	State Total	682,213,941	1,657,283	174,147	774,766,717
2027-2029	U.S. Total	15,409,362,537	76,880,735	4,502,123	18,755,085,689
2027-2029	Action	5,165	0.200792	0.12879	5,207
Percent of State Totals		0.00075705%	0.00001212%	0.00007396%	0.00067208%
Percent of U.S. Totals		0.00003352%	0.00000026%	0.00000286%	0.00002776%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000372%.\*

\* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, <https://www.c2es.org/content/international-emissions>).

# AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF AIR ANALYSIS (ROAA)

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.24a

**a. Action Location:**

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

**b. Action Title:** 50-year lease agreement with BDS

**c. Project Number/s (if applicable):** Alternative 3

**d. Projected Action Start Date:** 1 / 2027

**e. Action Description:**

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K-8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K - 5 built first, and the 6 - 8 and sports facilities built later, depending on construction cost. School construction full build-out.

**2. Air Impact Analysis:** Based on the attainment status at the action location, the requirements of the GCR are:

applicable  
 not applicable

Total reasonably foreseeable net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving "steady state" (cCba.e., no net gain/loss in emission stabilized and the action is fully implemented) emissions. The ACAM analysis uses the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the *USAF Air Emissions Guide for Air Force Stationary Sources*, the *USAF Air Emissions Guide for Air Force Mobile Sources*, and the *USAF Air Emissions Guide for Air Force Transitory Sources*.

"Insignificance Indicators" were used in the analysis to provide an indication of the significance of the proposed Action's potential impacts to local air quality. The insignificance indicators are trivial (de minimis) rate thresholds that have been demonstrated to have little to no impact to air quality. These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold and 25 ton/yr for lead for actions occurring in areas that are "Attainment" (cCba.e., not exceeding any National Ambient Air Quality Standard (NAAQS)). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutants is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQS. For further detail on insignificance indicators, refer to *Level II, Air Quality Quantitative Assessment, Insignificance Indicators*.

# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF AIR ANALYSIS (ROAA)

The action's net emissions for every year through achieving steady state were compared against the Insignificance Indicators and are summarized below.

### Analysis Summary:

#### 2027

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	6.570	250	No
NOx	7.967	250	No
CO	9.653	250	No
SOx	0.019	250	No
PM 10	202.120	250	No
PM 2.5	0.299	250	No
Pb	0.000	25	No
NH3	0.047	250	No

#### 2028

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.090	250	No
NOx	1.004	250	No
CO	1.213	250	No
SOx	0.002	250	No
PM 10	0.058	250	No
PM 2.5	0.034	250	No
Pb	0.000	25	No
NH3	0.018	250	No

#### 2029

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.640	250	No
NOx	0.707	250	No
CO	20.683	250	No
SOx	0.035	250	No
PM 10	0.144	250	No
PM 2.5	0.062	250	No
Pb	0.000	25	No
NH3	0.223	250	No

#### 2030 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	1.640	250	No
NOx	0.707	250	No
CO	20.683	250	No
SOx	0.035	250	No
PM 10	0.144	250	No

**AIR CONFORMITY APPLICABILITY MODEL REPORT  
RECORD OF AIR ANALYSIS (ROAA)**

<b>PM 2.5</b>	0.062	250	No
<b>Pb</b>	0.000	25	No
<b>NH3</b>	0.223	250	No

None of the estimated annual net emissions associated with this action are above the insignificance indicators; therefore, the action will not cause or contribute to an exceedance of one or more NAAQSs and will have an insignificant impact on air quality. No further air assessment is needed.

DCooper, Civ  
Name, Title

Jul 22 2025  
Date

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## 1. General Information

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### - Action Location

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

- **Action Title:** 50-year lease agreement with BDS

- **Project Number/s (if applicable):** Alternative 3

- **Projected Action Start Date:** 1 / 2027

### - Action Purpose and Need:

The Proposed Action is for DAF to enter into a 50-year lease agreement with BDS for an approximately 40-acre parcel on Tyndall AFB, on which BDS would build and operate the Tyndall Academy.

### - Action Description:

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out.

Report generated with ACAM version: 5.0.24a

### - Activity List:

	Activity Type	Activity Title
2.	Personnel	900
3.	Construction / Demolition	Tyndall Academy
4.	Emergency Generator	Emergency Genset
5.	Tanks	Fuel Tanks

Emission factors and air emission estimating methods come from the United States Air Force’s Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

## 2. Personnel

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### 2.1 General Information & Timeline Assumptions

- **Add or Remove Activity from Baseline?** Add

### - Activity Location

**County:** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

- **Activity Title:** 900

### - Activity Description:

Students drop off

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Activity Start Date**

**Start Month:** 1  
**Start Year:** 2029

**- Activity End Date**

**Indefinite:** Yes  
**End Month:** N/A  
**End Year:** N/A

**- Activity Emissions of Criteria Pollutants:**

Pollutant	Emissions Per Year (TONs)
VOC	1.616554
SO <sub>x</sub>	0.016336
NO <sub>x</sub>	0.613731
CO	20.620569

Pollutant	Emissions Per Year (TONs)
PM 10	0.123900
PM 2.5	0.042034
Pb	0.000000
NH <sub>3</sub>	0.223172

**- Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Emissions Per Year (TONs)
CH <sub>4</sub>	0.078832
N <sub>2</sub> O	0.031127

Pollutant	Emissions Per Year (TONs)
CO <sub>2</sub>	1951.503888
CO <sub>2</sub> e	1961.962466

## 2.2 Personnel Assumptions

**- Number of Personnel**

**Active Duty Personnel:** 0  
**Civilian Personnel:** 900  
**Support Contractor Personnel:** 15  
**Air National Guard (ANG) Personnel:** 0  
**Reserve Personnel:** 0

**- Default Settings Used:** Yes

**- Average Personnel Round Trip Commute (mile):** 20 (default)

**- Personnel Work Schedule**

**Active Duty Personnel:** 5 Days Per Week (default)  
**Civilian Personnel:** 5 Days Per Week (default)  
**Support Contractor Personnel:** 5 Days Per Week (default)  
**Air National Guard (ANG) Personnel:** 4 Days Per Week (default)  
**Reserve Personnel:** 4 Days Per Month (default)

## 2.3 Personnel On Road Vehicle Mixture

**- On Road Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	37.55	60.32	0	0.03	0.2	0	1.9
GOVs	54.49	37.73	4.67	0	0	3.11	0

## 2.4 Personnel Emission Factor(s)

**- On Road Vehicle Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.29231	0.00264	0.08459	4.07161	0.02260	0.00719	0.04737

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

LDGT	0.23822	0.00341	0.12388	3.61183	0.02397	0.00809	0.03931
HDGV	0.73029	0.00741	0.45794	8.19297	0.05012	0.02306	0.08552
LDDV	0.08843	0.00131	0.14033	7.39519	0.02511	0.00843	0.01729
LDDT	0.09442	0.00129	0.15867	3.06393	0.02380	0.00861	0.01626
HDDV	0.08344	0.00406	1.95823	1.55513	0.16104	0.06925	0.06795
MC	2.86819	0.00331	0.53419	11.31889	0.03259	0.02177	0.05299

## - On Road Vehicle Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01289	0.00471	315.06622	316.67585
LDGT	0.01356	0.00680	406.83049	409.01267
HDGV	0.04388	0.02324	884.76431	892.15156
LDDV	0.04509	0.00074	389.49533	390.95299
LDDT	0.02111	0.00109	383.62782	384.50716
HDDV	0.01945	0.16714	1211.69126	1256.52882
MC	0.10277	0.00321	390.97165	394.70017

## 2.5 Personnel Formula(s)

### - Personnel Vehicle Miles Travel for Work Days per Year

$$VMT_p = NP * WD * AC$$

VMT<sub>p</sub>: Personnel Vehicle Miles Travel (miles/year)  
 NP: Number of Personnel  
 WD: Work Days per Year  
 AC: Average Commute (miles)

### - Total Vehicle Miles Travel per Year

$$VMT_{Total} = VMT_{AD} + VMT_C + VMT_{SC} + VMT_{ANG} + VMT_{AFRC}$$

VMT<sub>Total</sub>: Total Vehicle Miles Travel (miles)  
 VMT<sub>AD</sub>: Active Duty Personnel Vehicle Miles Travel (miles)  
 VMT<sub>C</sub>: Civilian Personnel Vehicle Miles Travel (miles)  
 VMT<sub>SC</sub>: Support Contractor Personnel Vehicle Miles Travel (miles)  
 VMT<sub>ANG</sub>: Air National Guard Personnel Vehicle Miles Travel (miles)  
 VMT<sub>AFRC</sub>: Reserve Personnel Vehicle Miles Travel (miles)

### - Vehicle Emissions per Year

$$V_{POL} = (VMT_{Total} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>Total</sub>: Total Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Personnel On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

## 3. Construction / Demolition

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### 3.1 General Information & Timeline Assumptions

#### - Activity Location

County: Bay

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**Regulatory Area(s):** NOT IN A REGULATORY AREA

**- Activity Title:** Tyndall Academy

**- Activity Description:**

The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out

**- Activity Start Date**

**Start Month:** 1  
**Start Month:** 2027

**- Activity End Date**

**Indefinite:** False  
**End Month:** 4  
**End Month:** 2028

**- Activity Emissions:**

Pollutant	Total Emissions (TONs)
VOC	6.659103
SO <sub>x</sub>	0.021344
NO <sub>x</sub>	8.971611
CO	10.865332

Pollutant	Total Emissions (TONs)
PM 10	202.178154
PM 2.5	0.333099
Pb	0.000000
NH <sub>3</sub>	0.064779

**- Global Scale Activity Emissions of Greenhouse Gases:**

Pollutant	Total Emissions (TONs)
CH <sub>4</sub>	0.094289
N <sub>2</sub> O	0.136476

Pollutant	Total Emissions (TONs)
CO <sub>2</sub>	2877.765359
CO <sub>2</sub> e	2916.571220

## 3.1 Demolition Phase

### 3.1.1 Demolition Phase Timeline Assumptions

**- Phase Start Date**

**Start Month:** 1  
**Start Quarter:** 1  
**Start Year:** 2027

**- Phase Duration**

**Number of Month:** 6  
**Number of Days:** 0

### 3.1.2 Demolition Phase Assumptions

**- General Demolition Information**

**Area of Building to be demolished (ft<sup>2</sup>):** 8000  
**Height of Building to be demolished (ft):** 2

**- Default Settings Used:** No

**- Average Day(s) worked per week:** 5

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Concrete/Industrial Saws Composite	1	8
Rubber Tired Dozers Composite	1	1
Tractors/Loaders/Backhoes Composite	2	6

**- Vehicle Exhaust**

Average Hauling Truck Capacity (yd<sup>3</sup>): 20  
 Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.1.3 Demolition Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Concrete/Industrial Saws Composite [HP: 33] [LF: 0.73]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.38980	0.00742	3.42957	4.29108	0.07071	0.06505
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.34288	0.00492	3.09108	2.65644	0.13550	0.12466
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gases Pollutant Emission Factors (g/hp-hour)**

Concrete/Industrial Saws Composite [HP: 33] [LF: 0.73]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02330	0.00466	574.33236	576.30332
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02160	0.00432	532.55942	534.38703
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.1.4 Demolition Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

$$PM10_{FD} = (0.00042 * BA * BH) / 2000$$

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)

0.00042: Emission Factor (lb/ft<sup>3</sup>)

BA: Area of Building to be demolished (ft<sup>2</sup>)

BH: Height of Building to be demolished (ft)

2000: Conversion Factor pounds to tons

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (1 / 27) * 0.25 * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building being demolish (ft<sup>2</sup>)

BH: Height of Building being demolish (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards ( 1 yd<sup>3</sup> / 27 ft<sup>3</sup>)

0.25: Volume reduction factor (material reduced by 75% to account for air space)

HC: Average Hauling Truck Capacity (yd<sup>3</sup>)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

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VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

**- Worker Trips Emissions per Phase**

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 WD: Number of Total Work Days (days)  
 WT: Average Worker Round Trip Commute (mile)  
 1.25: Conversion Factor Number of Construction Equipment to Number of Works  
 NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

## 3.2 Site Grading Phase

### 3.2.1 Site Grading Phase Timeline Assumptions

**- Phase Start Date**

Start Month: 1  
 Start Quarter: 1  
 Start Year: 2027

**- Phase Duration**

Number of Month: 10  
 Number of Days: 0

### 3.2.2 Site Grading Phase Assumptions

**- General Site Grading Information**

Area of Site to be Graded (ft<sup>2</sup>): 2000000  
 Amount of Material to be Hauled On-Site (yd<sup>3</sup>): 2000  
 Amount of Material to be Hauled Off-Site (yd<sup>3</sup>): 6666

**- Site Grading Default Settings**

Default Settings Used: No  
 Average Day(s) worked per week: 5

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	2	8
Other Construction Equipment Composite	2	8
Rubber Tired Dozers Composite	2	8
Scrapers Composite	4	8
Tractors/Loaders/Backhoes Composite	2	8

**- Vehicle Exhaust**

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Average Hauling Truck Capacity (yd<sup>3</sup>): 20  
 Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.2.3 Site Grading Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

<b>Graders Composite [HP: 148] [LF: 0.41]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.29535	0.00490	2.28401	3.40565	0.12705	0.11688
<b>Other Construction Equipment Composite [HP: 82] [LF: 0.42]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.25231	0.00487	2.49971	3.48392	0.13245	0.12186
<b>Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.34288	0.00492	3.09108	2.65644	0.13550	0.12466
<b>Scrapers Composite [HP: 423] [LF: 0.48]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.19058	0.00488	1.60937	1.52212	0.06336	0.05829
<b>Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]</b>						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)**

<b>Graders Composite [HP: 148] [LF: 0.41]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02155	0.00431	531.25291	533.07604
<b>Other Construction Equipment Composite [HP: 82] [LF: 0.42]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02140	0.00428	527.44206	529.25211
<b>Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02160	0.00432	532.55942	534.38703
<b>Scrapers Composite [HP: 423] [LF: 0.48]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02145	0.00429	528.70476	530.51914
<b>Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]</b>				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170

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HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.2.4 Site Grading Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

HA<sub>OnSite</sub>: Amount of Material to be Hauled On-Site (yd<sup>3</sup>)

HA<sub>OffSite</sub>: Amount of Material to be Hauled Off-Site (yd<sup>3</sup>)

HC: Average Hauling Truck Capacity (yd<sup>3</sup>)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

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EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

## - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 WD: Number of Total Work Days (days)  
 WT: Average Worker Round Trip Commute (mile)  
 1.25: Conversion Factor Number of Construction Equipment to Number of Works  
 NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

## 3.3 Trenching/Excavating Phase

### 3.3.1 Trenching / Excavating Phase Timeline Assumptions

#### - Phase Start Date

Start Month: 1  
 Start Quarter: 1  
 Start Year: 2027

#### - Phase Duration

Number of Month: 4  
 Number of Days: 0

### 3.3.2 Trenching / Excavating Phase Assumptions

#### - General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft<sup>2</sup>): 70000  
 Amount of Material to be Hauled On-Site (yd<sup>3</sup>): 4000  
 Amount of Material to be Hauled Off-Site (yd<sup>3</sup>): 1000

#### - Trenching Default Settings

Default Settings Used: No  
 Average Day(s) worked per week: 5

#### - Construction Exhaust

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

#### - Vehicle Exhaust

Average Hauling Truck Capacity (yd<sup>3</sup>): 20

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Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

### 3.3.3 Trenching / Excavating Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Excavators Composite [HP: 36] [LF: 0.38]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.37809	0.00542	3.36699	4.21640	0.08879	0.08169
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.43579	0.00542	3.52468	4.59651	0.09918	0.09125
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005

**- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)**

Excavators Composite [HP: 36] [LF: 0.38]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02383	0.00477	587.39431	589.41010
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02385	0.00477	587.92708	589.94470
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

**- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)**

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539

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HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.3.4 Trenching / Excavating Phase Formula(s)

#### - Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10<sub>FD</sub>: Fugitive Dust PM 10 Emissions (TONs)  
 20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)  
 ACRE: Total acres (acres)  
 WD: Number of Total Work Days (days)  
 2000: Conversion Factor pounds to tons

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)  
 NE: Number of Equipment  
 WD: Number of Total Work Days (days)  
 H: Hours Worked per Day (hours)  
 HP: Equipment Horsepower  
 LF: Equipment Load Factor  
 EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)  
 0.002205: Conversion Factor grams to pounds  
 2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)  
 HA<sub>OnSite</sub>: Amount of Material to be Hauled On-Site (yd<sup>3</sup>)  
 HA<sub>OffSite</sub>: Amount of Material to be Hauled Off-Site (yd<sup>3</sup>)  
 HC: Average Hauling Truck Capacity (yd<sup>3</sup>)  
 (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)  
 HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)  
 VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)  
 VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

#### - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)  
 WD: Number of Total Work Days (days)  
 WT: Average Worker Round Trip Commute (mile)  
 1.25: Conversion Factor Number of Construction Equipment to Number of Works  
 NE: Number of Construction Equipment



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POVs	50.00	50.00	0	0	0	0	0
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**- Vendor Trips**

Average Vendor Round Trip Commute (mile): 40

**- Vendor Trips Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

### 3.4.3 Building Construction Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Cranes Composite [HP: 367] [LF: 0.29]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.19464	0.00487	1.74774	1.62852	0.07179	0.06605
Forklifts Composite [HP: 82] [LF: 0.2]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.22849	0.00487	2.15229	3.56761	0.09240	0.08501
Generator Sets Composite [HP: 14] [LF: 0.74]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.53730	0.00793	4.30480	2.85227	0.17170	0.15796
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.17717	0.00489	1.80740	3.48712	0.05440	0.05005
Welders Composite [HP: 46] [LF: 0.45]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.43501	0.00735	3.46616	4.46084	0.07894	0.07263

**- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)**

Cranes Composite [HP: 367] [LF: 0.29]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02140	0.00428	527.45492	529.26501
Forklifts Composite [HP: 82] [LF: 0.2]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02138	0.00428	527.06992	528.87869
Generator Sets Composite [HP: 14] [LF: 0.74]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02305	0.00461	568.30624	570.25652
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02148	0.00430	529.61807	531.43559
Welders Composite [HP: 46] [LF: 0.45]				
	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
Emission Factors	0.02305	0.00461	568.29664	570.24689

**- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)**

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HdGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

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## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.4.4 Building Construction Phase Formula(s)

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft<sup>2</sup>)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft<sup>3</sup> to trips (0.42 trip / 1000 ft<sup>3</sup>)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

#### - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{WT}$ : Worker Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
 $VM$ : Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

**- Vender Trips Emissions per Phase**

$$VMT_{VT} = BA * BH * (0.38 / 1000) * HT$$

$VMT_{VT}$ : Vender Trips Vehicle Miles Travel (miles)  
 $BA$ : Area of Building (ft<sup>2</sup>)  
 $BH$ : Height of Building (ft)  
 (0.38 / 1000): Conversion Factor ft<sup>3</sup> to trips (0.38 trip / 1000 ft<sup>3</sup>)  
 $HT$ : Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VT} * 0.002205 * EF_{POL} * VM) / 2000$$

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{VT}$ : Vender Trips Vehicle Miles Travel (miles)  
 0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
 $VM$ : Worker Trips On Road Vehicle Mixture (%)  
 2000: Conversion Factor pounds to tons

### 3.5 Architectural Coatings Phase

#### 3.5.1 Architectural Coatings Phase Timeline Assumptions

**- Phase Start Date**

**Start Month:** 10  
**Start Quarter:** 1  
**Start Year:** 2027

**- Phase Duration**

**Number of Month:** 3  
**Number of Days:** 0

#### 3.5.2 Architectural Coatings Phase Assumptions

**- General Architectural Coatings Information**

**Building Category:** Non-Residential  
**Total Square Footage (ft<sup>2</sup>):** 487340  
**Number of Units:** N/A

**- Architectural Coatings Default Settings**

**Default Settings Used:** Yes  
**Average Day(s) worked per week:** 5 (default)

**- Worker Trips**

**Average Worker Round Trip Commute (mile):** 20 (default)

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HdGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## 3.5.3 Architectural Coatings Phase Emission Factor(s)

### - Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	NH <sub>3</sub>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

### - Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2e</sub>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

## 3.5.4 Architectural Coatings Phase Formula(s)

### - Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)

1: Conversion Factor man days to trips ( 1 trip / 1 man \* day)

WT: Average Worker Round Trip Commute (mile)

PA: Paint Area (ft<sup>2</sup>)

800: Conversion Factor square feet to man days ( 1 ft<sup>2</sup> / 1 man \* day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V<sub>POL</sub>: Vehicle Emissions (TONs)

VMT<sub>WT</sub>: Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF<sub>POL</sub>: Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

### - Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

VOC<sub>AC</sub>: Architectural Coating VOC Emissions (TONs)

BA: Area of Building (ft<sup>2</sup>)

2.0: Conversion Factor total area to coated area (2.0 ft<sup>2</sup> coated area / total area)

0.0116: Emission Factor (lb/ft<sup>2</sup>)

2000: Conversion Factor pounds to tons

## 3.6 Paving Phase

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## 3.6.1 Paving Phase Timeline Assumptions

**- Phase Start Date**

Start Month: 8  
 Start Quarter: 1  
 Start Year: 2027

**- Phase Duration**

Number of Month: 6  
 Number of Days: 0

## 3.6.2 Paving Phase Assumptions

**- General Paving Information**

Paving Area (ft<sup>2</sup>): 340000

**- Paving Default Settings**

Default Settings Used: No  
 Average Day(s) worked per week: 5

**- Construction Exhaust**

Equipment Name	Number Of Equipment	Hours Per Day
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6

**- Vehicle Exhaust**

Average Hauling Truck Round Trip Commute (mile): 40

**- Vehicle Exhaust Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

**- Worker Trips**

Average Worker Round Trip Commute (mile): 40

**- Worker Trips Vehicle Mixture (%)**

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

## 3.6.3 Paving Phase Emission Factor(s)

**- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour)**

Pavers Composite [HP: 81] [LF: 0.42]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.22921	0.00486	2.45013	3.43821	0.11941	0.10986
Paving Equipment Composite [HP: 89] [LF: 0.36]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.18341	0.00488	2.01586	3.40316	0.07465	0.06867
Rollers Composite [HP: 36] [LF: 0.38]						
	VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5
Emission Factors	0.52865	0.00542	3.57666	4.10537	0.14602	0.13434

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

## - Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour)

<b>Pavers Composite [HP: 81] [LF: 0.42]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02133	0.00427	525.80912	527.61356
<b>Paving Equipment Composite [HP: 89] [LF: 0.36]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02142	0.00428	528.06776	529.87995
<b>Rollers Composite [HP: 36] [LF: 0.38]</b>				
	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
Emission Factors	0.02382	0.00476	587.12246	589.13732

## - Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	<b>VOC</b>	<b>SO<sub>x</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM 10</b>	<b>PM 2.5</b>	<b>NH<sub>3</sub></b>
LDGV	0.30250	0.00278	0.10216	4.37740	0.02381	0.00738	0.04984
LDGT	0.25584	0.00352	0.15087	3.96319	0.02489	0.00829	0.04170
HDGV	0.80268	0.00758	0.53554	9.42531	0.05206	0.02398	0.08830
LDDV	0.11600	0.00133	0.17757	7.08987	0.02608	0.00873	0.01694
LDDT	0.11871	0.00132	0.20883	3.52458	0.02453	0.00897	0.01663
HDDV	0.10536	0.00421	2.35450	1.64049	0.17368	0.08066	0.06684
MC	2.90332	0.00331	0.53638	11.52717	0.03290	0.02177	0.05245

## - Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	<b>CH<sub>4</sub></b>	<b>N<sub>2</sub>O</b>	<b>CO<sub>2</sub></b>	<b>CO<sub>2</sub>e</b>
LDGV	0.01413	0.00493	331.23691	332.93781
LDGT	0.01514	0.00719	419.65142	421.98105
HDGV	0.04771	0.02469	904.41092	912.28839
LDDV	0.04390	0.00074	393.54551	394.96998
LDDT	0.02222	0.00109	393.93490	394.84539
HDDV	0.02015	0.16469	1252.74971	1296.95643
MC	0.10508	0.00322	390.91110	394.70550

### 3.6.4 Paving Phase Formula(s)

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

#### - Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE<sub>POL</sub>: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF<sub>POL</sub>: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

#### - Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = PA * 0.25 * (1 / 27) * (1 / HC) * HT$$

VMT<sub>VE</sub>: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft<sup>2</sup>)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

0.25: Thickness of Paving Area (ft)  
(1 / 27): Conversion Factor cubic feet to cubic yards ( 1 yd<sup>3</sup> / 27 ft<sup>3</sup>)  
HC: Average Hauling Truck Capacity (yd<sup>3</sup>)  
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd<sup>3</sup>)  
HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{VE}$ : Vehicle Exhaust Vehicle Miles Travel (miles)  
0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
VM: Vehicle Exhaust On Road Vehicle Mixture (%)  
2000: Conversion Factor pounds to tons

## - Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

$VMT_{WT}$ : Worker Trips Vehicle Miles Travel (miles)  
WD: Number of Total Work Days (days)  
WT: Average Worker Round Trip Commute (mile)  
1.25: Conversion Factor Number of Construction Equipment to Number of Works  
NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

$V_{POL}$ : Vehicle Emissions (TONs)  
 $VMT_{VE}$ : Worker Trips Vehicle Miles Travel (miles)  
0.002205: Conversion Factor grams to pounds  
 $EF_{POL}$ : Emission Factor for Pollutant (grams/mile)  
VM: Worker Trips On Road Vehicle Mixture (%)  
2000: Conversion Factor pounds to tons

## - Off-Gassing Emissions per Phase

$$VOC_P = (2.62 * PA) / 43560 / 2000$$

$VOC_P$ : Paving VOC Emissions (TONs)  
2.62: Emission Factor (lb/acre)  
PA: Paving Area (ft<sup>2</sup>)  
43560: Conversion Factor square feet to acre (43560 ft<sup>2</sup> / acre)  
2000: Conversion Factor square pounds to TONs (2000 lb / TON)

## 4. Emergency Generator

---

### 4.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

#### - Activity Location

County: Bay  
Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Emergency Genset

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

**- Activity Description:**

**- Activity Start Date**

**Start Month:** 1  
**Start Year:** 2029

**- Activity End Date**

**Indefinite:** Yes  
**End Month:** N/A  
**End Year:** N/A

**- Activity Emissions of Criteria Pollutants:**

Pollutant	Emissions Per Year (TONs)
VOC	0.022599
SO <sub>x</sub>	0.019035
NO <sub>x</sub>	0.093150
CO	0.062208

Pollutant	Emissions Per Year (TONs)
PM 10	0.020331
PM 2.5	0.020331
Pb	0.000000
NH <sub>3</sub>	0.000000

**- Global Scale Activity Emissions of Greenhouse Gasses:**

Pollutant	Emissions Per Year (TONs)
CH <sub>4</sub>	0.000375
N <sub>2</sub> O	0.000075

Pollutant	Emissions Per Year (TONs)
CO <sub>2</sub>	9.315000
CO <sub>2</sub> e	10.773000

## 4.2 Emergency Generator Assumptions

**- Emergency Generator**

**Type of Fuel used in Emergency Generator:** Diesel  
**Number of Emergency Generators:** 4

**- Default Settings Used:** Yes

**- Emergency Generators Consumption**

**Emergency Generator's Horsepower:** 135 (default)  
**Average Operating Hours Per Year (hours):** 30 (default)

## 4.3 Emergency Generator Emission Factor(s)

**- Emergency Generators Criteria Pollutant Emission Factor (lb/hp-hr)**

VOC	SO <sub>x</sub>	NO <sub>x</sub>	CO	PM 10	PM 2.5	Pb	NH <sub>3</sub>
0.00279	0.00235	0.0115	0.00768	0.00251	0.00251		

**- Emergency Generators Greenhouse Gasses Pollutant Emission Factor (lb/hp-hr)**

CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CO <sub>2</sub> e
0.000046297	0.000009259	1.15	1.33

## 4.4 Emergency Generator Formula(s)

**- Emergency Generator Emissions per Year**

$$AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$$

AE<sub>POL</sub>: Activity Emissions (TONs per Year)  
 NGEN: Number of Emergency Generators  
 HP: Emergency Generator's Horsepower (hp)  
 OT: Average Operating Hours Per Year (hours)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

EF<sub>POL</sub>: Emission Factor for Pollutant (lb/hp-hr)

## 5. Tanks

---

### 5.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Bay

Regulatory Area(s): NOT IN A REGULATORY AREA

- Activity Title: Fuel Tanks

- Activity Description:

Genset Tanks

- Activity Start Date

Start Month: 1

Start Year: 2029

- Activity End Date

Indefinite: Yes

End Month: N/A

End Year: N/A

- Activity Emissions of Criteria Pollutants:

Pollutant	Emissions Per Year (TONs)
VOC	0.000850
SO <sub>x</sub>	0.000000
NO <sub>x</sub>	0.000000
CO	0.000000

Pollutant	Emissions Per Year (TONs)
PM 10	0.000000
PM 2.5	0.000000
Pb	0.000000
NH <sub>3</sub>	0.000000

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Emissions Per Year (TONs)
CH <sub>4</sub>	0.000000
N <sub>2</sub> O	0.000000

Pollutant	Emissions Per Year (TONs)
CO <sub>2</sub>	0.000000
CO <sub>2</sub> e	0.000000

### 5.2 Tanks Assumptions

- Chemical

Chemical Name: Fuel oil no. 2  
Chemical Category: Petroleum Distillates  
Chemical Density: 7.1  
Vapor Molecular Weight (lb/lb-mole): 130  
Stock Vapor Density (lb/ft<sup>3</sup>): 0.000129553551395334  
Vapor Pressure: 0.0055  
Vapor Space Expansion Factor (dimensionless): 0.068

- Tank

Type of Tank: Horizontal Tank  
Tank Length (ft): 15  
Tank Diameter (ft): 8

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Annual Net Throughput (gallon/year): 1000

## 5.3 Tank Formula(s)

### - Vapor Space Volume

$$VSV = (\text{PI} / 4) * D^2 * L / 2$$

VSV: Vapor Space Volume (ft<sup>3</sup>)

PI: PI Math Constant

D<sup>2</sup>: Tank Diameter (ft)

L: Tank Length (ft)

2: Conversion Factor (Vapor Space Volume is assumed to be one-half of the tank volume)

### - Vented Vapor Saturation Factor

$$VVVF = 1 / (1 + (0.053 * VP * L / 2))$$

VVVF: Vented Vapor Saturation Factor (dimensionless)

0.053: Constant

VP: Vapor Pressure (psia)

L: Tank Length (ft)

### - Standing Storage Loss per Year

$$SSL_{\text{VOC}} = 365 * VSV * SVD * VSEF * VVVF / 2000$$

SSL<sub>VOC</sub>: Standing Storage Loss Emissions (TONs)

365: Number of Daily Events in a Year (Constant)

VSV: Vapor Space Volume (ft<sup>3</sup>)

SVD: Stock Vapor Density (lb/ft<sup>3</sup>)

VSEF: Vapor Space Expansion Factor (dimensionless)

VVVF: Vented Vapor Saturation Factor (dimensionless)

2000: Conversion Factor pounds to tons

### - Number of Turnovers per Year

$$NT = (7.48 * \text{ANT}) / ((\text{PI} / 4.0) * D * L)$$

NT: Number of Turnovers per Year

7.48: Constant

ANT: Annual Net Throughput

PI: PI Math Constant

D<sup>2</sup>: Tank Diameter (ft)

L: Tank Length (ft)

### - Working Loss Turnover (Saturation) Factor per Year

$$WLSF = (18 + NT) / (6 * NT)$$

WLSF: Working Loss Turnover (Saturation) Factor per Year

18: Constant

NT: Number of Turnovers per Year

6: Constant

### - Working Loss per Year

$$WL_{\text{VOC}} = 0.0010 * \text{VMW} * \text{VP} * \text{ANT} * \text{WLSF} / 2000$$

0.0010: Constant

VMW: Vapor Molecular Weight (lb/lb-mole)

# DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VP: Vapor Pressure (psia)

ANT: Annual Net Throughput

WLSF: Working Loss Turnover (Saturation) Factor

2000: Conversion Factor pounds to tons

# AIR CONFORMITY APPLICABILITY MODEL REPORT

## GREENHOUSE GAS (GHG) EMISSIONS

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to estimate GHG emissions associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the GHG emissions analysis.

Report generated with ACAM version: 5.0.24a

**a. Action Location:**

**Base:** TYNDALL AFB  
**State:** Florida  
**County(s):** Bay  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

**b. Action Title:** 50-year lease agreement with BDS

**c. Project Number/s (if applicable):** Alternative 3

**d. Projected Action Start Date:** 1 / 2027

**e. Action Description:**

Three locations The Tyndall Academy would be an approximately 253,000-SF, two-story, K–8 school, with the capacity for 1,200 students. It is anticipated that the new school enrollment would be at capacity. The current school capacity is 1,020 (Plank 2025b, personal communication). As with the existing school, the new Tyndall Academy would serve civilian and military-dependent children. School construction might occur in phases, with K – 5 built first, and the 6 – 8 and sports facilities built later, depending on construction cost. School construction full build-out.

**2. Analysis:** Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action's start through the action's "steady state" (SS, net gain/loss in emission stabilized and the action is fully implemented) of emissions.

### GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO<sub>2</sub> equivalents (CO<sub>2</sub>e). The CO<sub>2</sub>e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases; the higher the GWP, the more that gas contributes to climate change in comparison to CO<sub>2</sub>. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO<sub>2</sub>e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO<sub>2</sub>e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO<sub>2</sub>e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require

# AIR CONFORMITY APPLICABILITY MODEL REPORT GREENHOUSE GAS (GHG) EMISSIONS

further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected steady state of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO2	CH4	N2O	CO2e	Threshold	Exceedance
2027	2,228	0.07646544	0.08827488	2,254	68,039	No
2028	382	0.00907397	0.03553498	392	68,039	No
2029	1,779	0.07185551	0.02830569	1,790	68,039	No
2030 [SS Year]	1,779	0.07185551	0.02830569	1,790	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. <https://statesummaries.ncics.org/downloads/>).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2027	227,404,647	552,428	58,049	258,255,572
2028	227,404,647	552,428	58,049	258,255,572
2029	227,404,647	552,428	58,049	258,255,572
2030 [SS Year]	227,404,647	552,428	58,049	258,255,572

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO2	CH4	N2O	CO2e
2027	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2028	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2029	5,136,454,179	25,626,912	1,500,708	6,251,695,230
2030 [SS Year]	5,136,454,179	25,626,912	1,500,708	6,251,695,230

## GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (Rtba.e., global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG/climate change is global. Therefore, the intensity or degree of the proposed action's GHG/climate change effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

# AIR CONFORMITY APPLICABILITY MODEL REPORT GREENHOUSE GAS (GHG) EMISSIONS

To provide real-world context to the GHG and climate change effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where the action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

<b>Total GHG Relative Significance (mton)</b>					
		<b>CO2</b>	<b>CH4</b>	<b>N2O</b>	<b>CO2e</b>
2027-2030	State Total	909,618,588	2,209,711	232,195	1,033,022,289
2027-2030	U.S. Total	20,545,816,716	102,507,647	6,002,831	25,006,780,918
2027-2030	Action	6,168	0.22925	0.180421	6,225
Percent of State Totals		0.00067813%	0.00001037%	0.00007770%	0.00060262%
Percent of U.S. Totals		0.00003002%	0.00000022%	0.00000301%	0.00002489%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000334%.\*

\* Global value based on the U.S. emitting 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, <https://www.c2es.org/content/international-emissions>).

## **APPENDIX H: COASTAL ZONE CONSISTENCY DETERMINATION**

**COASTAL ZONE CONSISTENCY DETERMINATION  
COASTAL ZONE MANAGEMENT ACT CONSISTENCY STATEMENT  
FLORIDA COASTAL MANAGEMENT PROGRAM  
FEDERAL CONSISTENCY EVALUATION PROCEDURES  
BAY COUNTY**

Tyndall Air Force Base (AFB) is within Florida's designated coastal zone and, as such, is regulated under the federal Coastal Zone Management Act and Florida's federally approved Coastal Zone Management Program.

The project proposed in the environmental assessment (EA) would be fully consistent with Florida's Enforceable Coastal Policies, implemented by the Florida Department of Environmental Protection (FDEP). No adverse effects on Florida's coastal resources would be expected from implementing the project in the EA. All activities would be conducted in accordance with applicable laws, regulations, and policies governing erosion and sediment control and stormwater management, which would ensure that the project would be executed in a manner consistent with the applicable Florida Coastal Program enforceable coastal policies. The following synopsis explains how the project would be consistent with the enforceable coastal policies as stipulated in the Florida Statutes.

**CHAPTER 161: BEACH AND SHORE PRESERVATION**

The state is required to protect coastal areas from imprudent activities that could jeopardize the stability of the beach-dune system, accelerate erosion, provide inadequate protection to upland structures, endanger adjacent properties, or interfere with public beach access. Coastal areas used, or likely to be used, by sea turtles are designated for nesting, and the removal of vegetative cover that binds sand is prohibited. This statute provides policy for the regulation of construction, reconstruction, and other physical activities related to the beaches and shores of the state. Additionally, this statute requires the restoration and maintenance of critically eroding beaches.

**Response:** Coastal construction would not occur as a part of this project. The project is not seaward of the mean high-water line and would not affect shorelines or shoreline processes.

**CHAPTER 163, PART II: INTERGOVERNMENTAL PROGRAMS: GROWTH POLICY, COUNTY AND MUNICIPAL PLANNING; LAND DEVELOPMENT REGULATION**

These statutes implement comprehensive planning programs to guide and control future development in the state, encouraging local governments to preserve, promote, protect, and improve the public health, safety, comfort, good order, appearance, convenience, law enforcement and fire prevention, and general welfare; prevent the overcrowding of land and avoid undue concentration of population; facilitate the adequate and efficient provision of public facilities and services; and conserve, develop, utilize, and protect natural resources within their jurisdictions.

**Response:** The Department of the Air Force (DAF) and the Bay District Schools (BDS) have work together on coordinating the project during the planning process. The project meets the

primary goal of the State Comprehensive Plan through preservation and protection of the environment.

### **CHAPTER 187: STATE COMPREHENSIVE PLAN**

The State Comprehensive Plan provides basic policy direction to all levels of government regarding the orderly social, economic, and physical growth of the state. The goals, objectives, and policies of the State Comprehensive Plan are statewide in scope and are consistent and compatible with each other. The statute provides direction for the delivery of governmental services, a means for defining and achieving the specific goals of the state, and a method for evaluating the accomplishment of those goals.

**Response:** The DAF and the BDS have work together on coordinating the project during the planning process. The project meets the primary goal of the State Comprehensive Plan through preservation and protection of the environment.

### **CHAPTER 252: EMERGENCY MANAGEMENT**

The state of Florida is vulnerable to a wide range of emergencies, including natural, technological, and man-made disasters and this vulnerability is exacerbated by the tremendous growth in the state's population, especially the growth in the number of persons residing in coastal areas, the elderly population, of seasonal vacationers, and of persons with special needs. This chapter directs the state to reduce the vulnerability of its people and property to natural and man-made disasters; prepare for, respond to, and reduce the impacts of disasters; and decrease the time and resources needed to recover from disasters. Disaster mitigation is necessary to ensure the common defense of Floridians' lives and to protect the public peace, health, and safety. The policies provide the means to assist in the prevention or mitigation of emergencies that may be caused or aggravated by the inadequate planning or regulation of facilities and land uses. State agencies are directed to keep land uses and facility construction under continuing study and identify areas that are particularly susceptible to natural or man-made catastrophic occurrences.

**Response:** Tyndall AFB has developed a Coastal Resilience Implementation Plan (CRIP) to improve the base's resilience against storm surge inundation, sea level rise, and associated coastal flooding impacts through traditional and nature-based solutions. The CRIP includes flood risk assessments and recommendations of flood defense strategies to protect critical infrastructure at the base. The project aligns with Tyndall AFB's CRIP and with the state's efforts to reduce the vulnerability of people and property to natural and man-made disasters. The project will be consistent with the efforts of the Division of Emergency Management.

### **CHAPTER 253: STATE LANDS**

The Board of Trustees of the Internal Improvement Trust Fund (Trustees) is vested and charged with the acquisition, administration, management, control, supervision, conservation, protection, and disposition of all lands owned by the state. Lands acquired for preservation, conservation, and recreation serve the public interest by contributing to the public health, welfare, and economy. In carrying out the requirements of this statute, the Trustees are directed to take necessary action to fully conserve and protect state lands; maintain natural conditions; protect and enhance natural areas and ecosystems; prevent damage and depredation; and preserve archaeological and historical resources. All submerged lands are considered single-use lands to

be maintained in natural condition for the propagation of fish and wildlife and public recreation. Where multiple uses are permitted, ecosystem integrity, recreational benefits, and wildlife values are conserved and protected.

No lease of the type covered by this law shall be granted, sold, or executed south of 26° north latitude off Florida's west coast and south of 27° north latitude off Florida's east coast.... After July 31, 1990, no oil or natural gas lease shall be granted, sold, or executed covering lands located north of 26°00'00" north latitude off Florida's west coast to the western boundary of the state bordering Alabama ... or located north of 27°00'00" north latitude off Florida's east coast to the northern boundary of the state bordering Georgia  
....

**Response:** The project is anticipated to have no effect on state lands. Florida "state lands" do not include lands owned and occupied by Department of Defense (DoD) entities. State lands in Florida are those managed by the FDEP and include lands that are owned, leased, or otherwise occupied by Florida government entities. DoD lands are federal properties and are not part of the state lands inventory.

#### **CHAPTER 258: STATE PARKS AND PRESERVES**

The chapter addresses the state's administration of state parks, aquatic preserves, and recreation areas, which are acquired to emblemize the state's natural values and to ensure that these values are conserved for all time. Parks and preserves are managed for the non-depleting use, enjoyment, and benefit of Floridians and visitors and to contribute to the state's tourist appeal. Aquatic preserves have exceptional biological, aesthetic, and scientific value and are set aside for being maintained essentially in their natural or existing condition. Disruptive physical activities and polluting discharges are highly restricted in aquatic preserves. State-managed wild and scenic rivers possess exceptionally remarkable and unique ecological, fish and wildlife, and recreational values and are designated for permanent preservation and enhancement for both the present and future.

**Response:** The project area affects only federal land. The project will not affect state parks, aquatic preserves, or recreation areas. This chapter does not apply.

#### **CHAPTER 259: LAND ACQUISITION FOR CONSERVATION OR RECREATION**

This chapter addresses public ownership of natural areas for purposes of maintaining the state's unique natural resources; protecting air, land, and water quality; promoting water resource development to meet the needs of natural systems and citizens of this state; promoting restoration activities on public lands; and providing lands for natural resource-based recreation. Lands are managed to protect or restore their natural resource values and provide the greatest benefit, including public access, to the citizens of this state.

**Response:** The project area affects only federal land and involves no change of land ownership. This chapter does not apply.

#### **CHAPTER 260: FLORIDA GREENWAYS AND TRAILS ACT**

A statewide system of greenways and trails is established to conserve, develop, and use the natural resources of Florida for healthful and recreational purposes. These greenways and trails provide open space benefiting environmentally sensitive lands and wildlife and provide people

with access to healthful outdoor activities. The greenways and trails serve to implement the concepts of ecosystem management while providing, where appropriate, recreational opportunities such as horseback riding, hiking, bicycling, canoeing, jogging, and historical and archaeological interpretation.

**Response:** The project area affects only federal land and involves no areas included in the state's greenways or trails. This chapter does not apply.

## **CHAPTER 267: FLORIDA HISTORICAL RESOURCES ACT**

The management and preservation of the state's archaeological and historical resources are addressed by this chapter. This chapter recognizes the state's rich and unique heritage of historical resources and directs the state to locate, acquire, protect, preserve, operate, and interpret historical and archaeological resources for the benefit of current and future generations of Floridians. Objects or artifacts with intrinsic historical or archaeological value located, or abandoned, on state-owned lands or state-owned submerged lands belong to the citizens of the state. The state historic preservation program operates in conjunction with the National Historic Preservation Act of 1966 (NHPA) to require state and federal agencies to consider the effect of their direct or indirect actions on [significant] historical and archaeological resources. These resources cannot be destroyed or altered unless no prudent alternative exists. Unavoidable impacts must be mitigated.

**Response:** Pursuant to NHPA Section 106, the DAF invited the Florida Division of Historical Resources (FDHR) to consult on the Proposed Action; the DAF also invited the Miccosukee Tribe of Indians of Florida, Muscogee (Creek) Nation, Poarch Band of Creek Indians, Seminole Nation of Oklahoma, Seminole Tribe of Florida, and Thlopthlocco Tribal Town to consult on the Proposed Action through government-to-government consultation. The Tyndall AFB 325th Civil Engineer Squadron and 325th Fighter Wing conducted Section 106 consultation and government-to-government consultation in February 2024 and April and May 2025. Two consulting parties, the Muscogee (Creek) Nation and Seminole Tribe of Florida, responded to the 2024 and 2025 government-to-government consultation letters. In March 2024 and May 2025, the Seminole Tribe of Florida reported no objections to the work and requested additional information in the event of an unanticipated discovery. In March 2024, the Muscogee (Creek) Nation also reported no objections to the work and requested additional information in the event of an unanticipated discovery; and submitted a May 2025 response requesting additional project information prior to providing a determination on the Proposed Action. Tyndall AFB provided additional information via government-to-government consultation on May 7, 2025, and has received no additional comments or determinations.

No effects would be expected on cultural resources under Alternative 1 or 2 of the project. Short- and long-term, significant-but-mitigatable adverse effects on historic properties would be expected under Alternative 3. Selection of Alternative 3 as the site of Tyndall Academy would require additional consultation with the FDHR and additional government-to-government consultation with the relevant tribal nations to determine appropriate mitigation measures. At this stage, the DAF has met all responsibilities under Chapter 267 and Section 106.

## **CHAPTER 288: COMMERCIAL DEVELOPMENT AND CAPITAL IMPROVEMENTS**

The statutory framework promotes and develops the general business, trade, and tourism components of the state economy. The chapter includes requirements to protect and promote the

natural, coastal, historical, and cultural tourism assets of the state; foster the development of nature-based tourism and recreation; and upgrade the image of Florida as a quality destination. Natural resource-based tourism and recreational activities are critical sectors of Florida's economy. The needs of the environment must be balanced with the need for growth and economic development.

**Response:** The project area affects only federal land and involves no elements of business, trade, or tourism. This chapter does not apply.

### **CHAPTER 334: FLORIDA TRANSPORTATION CODE**

The chapter addresses the state's policy concerning transportation administration. It establishes the responsibilities of the state, the counties, and the municipalities in the planning and development of the transportation systems serving the people of the state and to ensure the development of an integrated, balanced statewide transportation system. This is necessary for the protection of public safety and general welfare and for the preservation of all transportation facilities in the state.

**Response:** The DAF and the BDS have work together on coordinating the project during the planning process to have minimal impact on public transportation systems. The project complies with the intent of this chapter.

### **CHAPTER 339: TRANSPORTATION FINANCE AND PLANNING**

The chapter addresses the finance and planning needs of the state's transportation system.

**Response:** The DAF and the BDS have work together on coordinating the project during the planning process to have minimal impact on public transportation systems. The project complies with the intent of this chapter.

### **CHAPTER 373: FLORIDA WATER RESOURCES ACT OF 1972**

The waters of the state of Florida are managed and protected to conserve and preserve water resources, water quality, and environmental quality. This chapter addresses sustainable water management; the conservation of surface and ground waters for full beneficial use; the preservation of natural resources, fish, and wildlife; protecting public land; and promoting the health and general welfare of Floridians. The state manages and conserves water and related natural resources by determining whether activities will unreasonably consume water, flood properties, degrade water quality, or adversely affect environmental values.

Specifically, under Part IV of Chapter 373, the Department of Environmental Protection, water management districts, and delegated local governments review and take agency action on wetland resource, environmental resource, and stormwater permit applications, which address the construction, alteration, operation, maintenance, abandonment, and removal of any stormwater management system, dam, impoundment, reservoir, or appurtenant work or works, including dredging, filling, and construction activities in, on, and over wetlands and other surface waters.

**Response:** The project is not anticipated to adversely affect wetland resources or surface waters. The project will be covered under the FDEP National Pollutant Discharge Elimination System (NPDES) Generic Permit for Stormwater Discharge from Large and Small Construction Activities (effective date: February 2015) and the DAF will ensure that all environmental

protection measures contained in the permit will be fully implemented and maintained to ensure that ground water quality is protected and that the stormwater management system implemented on the site, both during construction and during the operational life of the project, complies with applicable federal and state regulations. The project is consistent with the goals of this chapter.

#### **CHAPTER 375: OUTDOOR RECREATION AND CONSERVATION ACT OF 1963**

The chapter requires the FDEP to develop a comprehensive multipurpose outdoor recreation plan in coordination with other governmental entities, including the South Florida Water Management District. The purpose of the plan is to document recreational supply and demand, describe current recreational opportunities, estimate the need for additional recreational opportunities, and propose the means to meet the identified needs.

**Response:** The project does not involve recreational resources and is not associated with FDEP's efforts to develop a comprehensive multipurpose outdoor recreation plan. This chapter does not apply.

#### **CHAPTER 376: POLLUTANT DISCHARGE PREVENTION AND CONTROL ACT**

Regulating the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges is essential for maintaining the coastal waters, estuaries, tidal flats, beaches, and public lands adjoining the seacoast in as close to a pristine condition as possible. The preservation of the seacoast as a source of public and private recreation and the preservation of water and certain lands are matters of the highest urgency and priority. This chapter provides a framework for the protection of the state's coastline from spills, discharges, and releases of pollutants as a result of the transfer, storage, and transportation of such products. The discharge of pollutants into or upon any coastal waters, estuaries, tidal flats, beaches, and lands adjoining the seacoast of the state is prohibited. The chapter requires hazards and threats of danger and damages resulting from any pollutant discharge to be evaluated; requires the prompt containment and removal of pollution; provides penalties for violations; and ensures the prompt payment of reasonable damages from a discharge. Portions of Chapter 376 complement the national contingency plan portions of the Federal Water Pollution Control Act.

**Response:** The project does not involve the transfer, storage, and transportation of pollutants. No discharge of pollutants into coastal waters, estuaries, tidal flats, beaches, or lands adjoining the seacoast are expected because of the project. Stormwater control measures will be implemented to ensure that no lasting adverse effects on water quality, or other environmental resources, will occur. The project complies with the chapter.

#### **CHAPTER 377: ENERGY RESOURCES**

The chapter addresses the regulation, planning, and development of the energy resources of the state. The chapter provides policy to conserve and control the oil and gas resources in the state, including products made therefrom and to safeguard the health, property, and welfare of Floridians. FDEP is authorized to regulate all phases of exploration, drilling, and production of oil, gas, and other petroleum products in the state. The chapter describes the permitting requirements and criteria necessary to drill for and develop oil and gas. FDEP rules ensure that all precautions are taken to prevent the spillage of oil and any other pollutant in all phases of extraction and transportation. The state explicitly prohibits pollution resulting from drilling and production activities. No person drilling for or producing oil, gas, or other petroleum products

may pollute land or water; damage aquatic or marine life, wildlife, birds, or public or private property; or allow any extraneous matter to enter or damage any mineral or freshwater-bearing formation. Penalties for violations of any provisions of this chapter are detailed.

Not approved as enforceable policy: sections 377.06, .24(9), and .242(1)(a)5. All deal with regulation of oil and gas resources.

**Response:** The project does not involve exploration, drilling, or production of gas, oil, or petroleum products. This chapter does not apply.

### **CHAPTER 379: FISH AND WILDLIFE CONSERVATION**

The framework for the management and protection of the state of Florida's wide diversity of fish and wildlife resources is established in this statute. It is the policy of the state to conserve and wisely manage these resources. Particular attention is given to those species defined as being endangered or threatened. This includes the acquisition or management of lands important to the conservation of fish and wildlife. This chapter contains specific provisions for the conservation and management of marine fisheries resources. These conservation and management measures permit reasonable means and quantities of annual harvest, consistent with maximum practicable sustainable stock abundance, as well as ensure the proper quality control of marine resources that enter commerce.

This chapter also supports and promotes hunting, fishing, and the taking of game opportunities in the state. Hunting, fishing, and the taking of game are considered an important part in the state's economy and in the conservation, preservation, and management of the state's natural areas and resources.

Sections 379.2511 (lease of state-owned water bottoms for growing oysters and clams) and 379.362 (wholesale and retail saltwater products dealers; regulation) are not approved as enforceable policy.

**Response:** The project has been evaluated in an environmental assessment to have no effects on endangered or threatened species or marine fisheries resources. No hunting or fishing is associated with the project. The project complies with the chapter.

### **CHAPTER 379: SALTWATER LIVING RESOURCES**

This chapter directs the state to preserve, manage, and protect the marine, crustacean, shell, and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the state engaged in the taking of such resources within or without state waters; to issue licenses for the taking and processing of products of fisheries; to secure and maintain statistical records of the catch of each such species; and to conduct scientific, economic, and other studies and research.

**Response:** The project will have no effect on marine, crustacean, shell, and anadromous fishery resources or the marine and estuarine environment of state waters. This chapter does not apply.

### **CHAPTER 379.102: LIVING LAND AND FRESHWATER RESOURCES**

This chapter establishes the Game and Freshwater Fish Commission (now called the Florida Fish and Wildlife Conservation Commission) and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions

that provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

**Response:** The project will have no effect on freshwater aquatic life or wild animal life and their habitats. This chapter does not apply.

### **CHAPTER 380: LAND AND WATER MANAGEMENT**

Land and water management policies are established to protect natural resources and the environment; and to guide and coordinate local decisions relating to growth and development. The statute provides that state land and water management policies, to the maximum possible extent, be implemented by local governments through existing processes for the guidance of growth and development and that all the existing rights of private property be preserved in accord with constitutions of this state and of the United States. The chapter establishes the Areas of Critical State Concern designation, the Florida Communities Trust, and the Florida Coastal Management Act. The Florida Coastal Management Act provides the basis for the Florida Coastal Management Program, which seeks to protect the natural, commercial, recreational, ecological, industrial, and aesthetic resources of Florida's coast.

Not approved as enforceable policy: Section 380.23(3)(d)—[consistency review of] federal activities within the territorial limits of neighboring states when the Governor and the department determine that significant individual or cumulative impacts to the land or water resources of the state would result from the activities.

**Response:** The DAF and the BDS have work together on coordinating the project during the planning process. The project complies with Bay County goals for growth and development. The project will have no effect on Areas of Critical State Concern. The project complies with the chapter.

### **CHAPTER 381: PUBLIC HEALTH: GENERAL PROVISIONS**

The chapter establishes public policy concerning the state's public health system, which is designated to promote, protect, and improve the health of all people in the state.

Enforceable policy includes only sections 381.001 Legislative intent; public health system; 381.0011 Duties and powers of the Department of Health; 381.0012 Enforcement authority; 381.006 Environmental health; 381.0061 Administrative fines; 381.0065 Onsite sewage treatment and disposal systems; regulation; 381.0066 Onsite sewage treatment and disposal systems; fees; and 381.0067 Corrective orders; private and certain public water systems and onsite sewage treatment and disposal systems.

**Response:** This project will not affect the state's public health system. The chapter does not apply.

### **CHAPTER 388: MOSQUITO CONTROL**

Mosquito control efforts of the state are to achieve and maintain such levels of arthropod control as will protect human health and safety and foster the quality of life of the people, promote the economic development of the state, and facilitate the enjoyment of its natural attractions by reducing the number of pestiferous and disease-carrying arthropods. It is the policy of the state to conduct arthropod control in a manner consistent with protection of the environmental and ecological integrity of all lands and waters throughout the state.

**Response:** The project will not further the propagation of mosquitoes or other pest arthropods. The project complies with the chapter.

### **CHAPTER 403: FLORIDA AIR AND WATER POLLUTION CONTROL ACT**

Florida air and water pollution control policies conserve state waters; protect and improve water quality for consumption and for the propagation of fish and wildlife; and maintain air quality to protect human health and plant and animal life. This chapter provides wide-ranging authority to address various environmental control concerns, including air and water pollution; electrical power plant and transmission line siting; the Interstate Environmental Control Compact; resource recovery and management; solid and hazardous waste management; drinking water protection; pollution prevention; ecosystem management; and natural gas transmission pipeline siting.

**Response:** An environmental assessment addressing project impacts has been prepared and will be reviewed by the appropriate resource agencies, including FDEP. Environmental protection measures will be implemented to ensure that no lasting adverse effects on water quality, air quality, or other environmental resources will occur. The project complies with the chapter.

### **CHAPTER 553: BUILDING CONSTRUCTION STANDARDS**

The chapter addresses building construction standards and provides for a uniform Florida Building Code.

Enforceable policy includes only Sections 553.73 (Florida Building Code) and 553.79 (Permits; applications; issuance; inspections).

**Response:** The project involves the construction of a Bay County school. The DAF and the BDS have work together on coordinating the project during the planning process. The school will comply with all applicable building construction standards and the uniform Florida Building Code. The project complies with the chapter.

### **CHAPTER 582: SOIL AND WATER CONSERVATION**

It is the state's policy to promote the appropriate and efficient use of soil and water resources, protect water quality, prevent floodwater and sediment damage, preserve wildlife, protect public lands, and protect and promote the health, safety, and general welfare of the people of this state. Farm, forest, and grazing lands are among the basic assets of the state; and the preservation of those lands is necessary to protect and promote the health, safety, and general welfare of its people. These measures help to preserve state and private lands, control floods, maintain water quality, prevent impairment of dams and reservoirs, assist in maintaining the navigability of rivers and harbors, preserve wildlife and protect wildlife habitat, protect the tax base, protect public lands, and protect and promote the health, safety, and general welfare of the people of this state.

**Response:** The project includes construction of a school on leased DAF land. Soil erosion will be controlled during construction as required under the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (effective date: February 2015). The project will not affect farm, forest, or grazing lands; wildlife; or private or public lands. The project complies with the chapter.

**CHAPTER 597: FLORIDA AQUACULTURE POLICY ACT**

The chapter establishes public policy concerning the cultivation of aquatic organisms in the state. The intent is to enhance the growth of aquaculture, while protecting Florida's environment. This includes a requirement for a state aquaculture plan that provides for the coordination and prioritization of state aquaculture efforts, the conservation and enhancement of aquatic resources, and mechanisms for increasing aquaculture production for the creation of new industries, job opportunities, income for aquaculturists, and other benefits to the state.

**Response:** The project does not include aquaculture activities. The chapter does not apply.

**APPENDIX I: PROTECTED SPECIES ASSOCIATED WITH TYNDALL  
AFB**

**Table I. Protected Species Associated with Tyndall AFB**

Type of Animal or Plant	Common Name	Scientific Name	Federal Status	State Status
Bird	American oystercatcher	<i>Haematopus palliatus</i>	None	T
Bird	Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA	None
Bird	Black skimmer	<i>Rhychops niger</i>	None	T
Bird	Eastern black rail <sup>a</sup>	<i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i>	T	None
Bird	Least tern	<i>Sterna antillarum</i>	None	T
Bird	Little blue heron	<i>Egretta caerulea</i>	None	T
Bird	Marian's marsh wren	<i>Cistothorus palustris marianae</i>	None	T
Bird	Piping plover	<i>Charadrius melodus</i>	T	FT
Bird	Red-cockaded woodpecker <sup>b</sup>	<i>Dryobates borealis</i>	T	FE
Bird	Reddish egret	<i>Egretta rufescens</i>	None	T
Bird	Rufa red knot <sup>a</sup>	<i>Calidris canutus rufa</i>	T	FT
Bird	Snowy plover	<i>Charadrius alexandrinus</i>	None	T
Bird	Southeastern American kestrel	<i>Falco sparverius paulus</i>	None	T
Bird	Tricolor heron	<i>Egretta tricolor</i>	None	T
Fish	Gulf sturgeon <sup>a</sup>	<i>Acipenser oxyrinchus desotoi</i>	T	FT
Fish	Smalltooth sawfish	<i>Pristis pectinate</i>	None	FE
Insect	Monarch butterfly <sup>a, c</sup>	<i>Danaus plexippus</i>	PT	
Land Mammal	Choctawhatchee beach mouse <sup>a</sup>	<i>Peromyscus polionotus alloparys</i>	E	FE
Land Mammal	Florida black bear	<i>Ursus americanus floridanus</i>	None	FBBCR
Land Mammal	St. Andrew beach mouse	<i>Peromyscus polionotus peninsularis</i>	E	FE
Land Mammal	Tricolored bat <sup>a, c</sup>	<i>Perimyotis subflavus</i>	PE	None
Marine Mammal	Atlantic spotted dolphin	<i>Stenella frontalis</i>	MMPA	None
Marine Mammal	Beaked whale	<i>Mesoplodon</i> spp.	MMPA	None
Marine Mammal	Bottlenose dolphin	<i>Tursiops truncatus</i>	MMPA	None
Marine Mammal	Bryde's whale	<i>Balaenoptera edeni</i>	MMPA	None
Marine Mammal	Clymene dolphin	<i>Stenella clymene</i>	MMPA	None
Marine Mammal	Dwarf/pygmy sperm whale	<i>Kogia</i> spp.	MMPA	None
Marine Mammal	False killer whale	<i>Pseudorca crassidens</i>	MMPA	None
Marine Mammal	Fraser's dolphin	<i>Lagenodelphis hosei</i>	MMPA	None
Marine Mammal	Killer whale	<i>Orcinus orca</i>	MMPA	None
Marine Mammal	Melon-headed whale	<i>Peponocephala electra</i>	MMPA	None
Marine Mammal	Pantropical spotted dolphin	<i>Stenella attenuata</i>	MMPA	None
Marine Mammal	Pygmy killer whale	<i>Feresa attenuate</i>	MMPA	None
Marine Mammal	Risso's dolphin	<i>Grampus griseus</i>	MMPA	None
Marine Mammal	Rough-toothed dolphin	<i>Steno bredanensis</i>	MMPA	None
Marine Mammal	Short-finned pilot whale	<i>Globicephalus</i> spp.	MMPA	None
Marine Mammal	Spinner dolphin	<i>Stenella longirostris</i>	MMPA	None
Marine Mammal	Sperm whale	<i>Physeter macrocephalus</i>	E/MMPA	FE
Marine Mammal	Striped dolphin	<i>Stenella coeruleoalba</i>	MMPA	None
Marine Mammal	West Indian manatee <sup>a</sup>	<i>Trichechus manatus</i>	T	FE
Plant	Apalachicola aster	<i>Eurybia spinulosa</i>	None	E
Plant	Apalachicola dragonhead	<i>Physostegia godfreyi</i>	None	T
Plant	Chapman's butterwort	<i>Pinguicula planifolia</i>	None	T
Plant	Chapman's crownbeard	<i>Verbesina chapmanii</i>	None	T

Type of Animal or Plant	Common Name	Scientific Name	Federal Status	State Status
Plant	Dew thread sundew	<i>Drosera filiformis</i>	None	E
Plant	Giant water dropwort	<i>Oxypolis greenmanii</i>	None	E
Plant	Godfrey's butterwort <sup>a</sup>	<i>Pinguicula ionantha</i>	T	E
Plant	Godfrey's golden aster	<i>Chrysopsis godfreyi</i>	None	E
Plant	Gulf coast lupine	<i>Lupinus westianus</i>	None	T
Plant	Harper's yellow-eyed grass	<i>Xyris scabrifolia</i>	None	T
Plant	Karst pond yellow-eyed grass	<i>Xyris longisepala</i>	None	E
Plant	Large-leaved jointweed	<i>Polygonella macrophylla</i>	None	T
Plant	Parrot pitcher plant	<i>Sarracenia psittacina</i>	None	T
Plant	Purple pitcher plant	<i>Sarracenia rosea</i>	None	T
Plant	Quillwort yellow-eyed grass	<i>Xyris isoetifolia</i>	None	E
Plant	Small spreading pogonia	<i>Cleistes bifaria</i>	None	E
Plant	Snakemouth orchid	<i>Pogonia ophioglossoides</i>	None	T
Plant	Southern milkweed	<i>Asclepias viridula</i>	None	T
Plant	Southern red lily	<i>Lilium catesbaei</i>	None	T
Plant	Spoon-leaved sundew	<i>Drosera intermedia</i>	None	T
Plant	Telephus spurge <sup>1</sup>	<i>Euphorbia telephioides</i>	T	E
Plant	Thick-leaved water willow	<i>Justicia crassifolia</i>	None	E
Plant	White-flowered wild petunia	<i>Ruellia noctiflora</i>	None	E
Plant	White birds-in-a-nest <sup>a, c</sup>	<i>Macbridea alba</i>	T	None
Plant	Wiregrass gentian	<i>Gentiana pennelliana</i>	None	E
Plant	Yellow-flowered butterwort	<i>Pinguicula lutea</i>	None	T
Reptile	Alligator snapping turtle <sup>a, c</sup>	<i>Macrolemys temminckii</i>	PT	None
Reptile	American alligator	<i>Alligator mississippiensis</i>	T (S/A)	T (S/A)
Reptile	Eastern indigo snake <sup>a, b</sup>	<i>Drymarchon couperi</i>	T	FT
Reptile	Florida pine snake <sup>b</sup>	<i>Pituophis melanoleucus mugitus</i>	None	T
Reptile	Gopher tortoise	<i>Gopherus polyphemus</i>	None	T
Reptile	Green sea turtle	<i>Chelonia mydas</i>	T	FT
Reptile	Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	E	FE
Reptile	Leatherback sea turtle	<i>Dermochelys coriacea</i>	E	FE
Reptile	Loggerhead sea turtle	<i>Caretta caretta</i>	T	FT

Notes: BGEPA = Bald and Golden Eagle Protection Act; E = endangered; FBBCR = Florida Black Bear Conservation Rule; MMPA = Marine Mammal Protection Act; PE = proposed endangered; PT = proposed threatened; S/A = similarity of appearance; T = threatened.

<sup>a</sup> Indicated on the USFWS Information for Planning and Consultation website as potentially occurring on or near one of the alternative sites.

<sup>b</sup> Not documented on Tyndall AFB though the species is known to occur in the region and/or appropriate habitat exists on the base.

<sup>c</sup> Not documented on Tyndall AFB.

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Bay County, Florida



## Local office

Florida Ecological Services Field Office

☎ (352) 448-9151

📞 (772) 562-4288

✉ [fw4flesregs@fws.gov](mailto:fw4flesregs@fws.gov)

777 37th St  
Suite D-101  
Vero Beach, FL 32960-3559

<https://www.fws.gov/office/florida-ecological-services>

NOT FOR CONSULTATION

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
  2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Mammals

NAME	STATUS
Choctawhatchee Beach Mouse <i>Peromyscus polionotus</i> allophrys Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/3520">https://ecos.fws.gov/ecp/species/3520</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/4469">https://ecos.fws.gov/ecp/species/4469</a>	Threatened Marine mammal

## Birds

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/10477">https://ecos.fws.gov/ecp/species/10477</a>	Threatened
Piping Plover <i>Charadrius melodus</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a>	Threatened
Rufa Red Knot <i>Calidris canutus rufa</i> Wherever found There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a>	Threatened

# Reptiles

NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/4658">https://ecos.fws.gov/ecp/species/4658</a>	Proposed Threatened
Eastern Indigo Snake <i>Drymarchon couperi</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/646">https://ecos.fws.gov/ecp/species/646</a>	Threatened

# Fishes

NAME	STATUS
Gulf Sturgeon <i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/651">https://ecos.fws.gov/ecp/species/651</a>	Threatened

# Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened

# Flowering Plants

NAME	STATUS
Godfrey's Butterwort <i>Pinguicula ionantha</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/6805">https://ecos.fws.gov/ecp/species/6805</a>	Threatened
Telephus Spurge <i>Euphorbia telephioides</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/5499">https://ecos.fws.gov/ecp/species/5499</a>	Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6291>

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

## Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act <sup>2</sup> and the Migratory Bird Treaty Act (MBTA) <sup>1</sup>. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The [data](#) in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the [Supplemental Information on Migratory Birds and Eagles document](#) to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

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Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds  
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds  
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC  
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden->

Bald and Golden Eagle information is not available at this time

## Bald & Golden Eagles FAQs

### **What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?**

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

### **Proper interpretation and use of your eagle report**

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

### **How do I know if eagles are breeding, wintering, or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **Interpreting the Probability of Presence Graphs**

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

### ***How is the probability of presence score calculated? The calculation is done in three steps:***

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### **Breeding Season ()**

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### **Survey Effort ()**

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### **No Data ()**

A week is marked as having no data if there were no survey events for that week.

### **Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

## Migratory birds

The Migratory Bird Treaty Act (MBTA) <sup>1</sup> prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior [authorization](#) by the Department of Interior U.S. Fish and Wildlife Service (FWS). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The FWS interprets the MBTA to prohibit incidental take.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds  
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC  
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Migratory bird information is not available at this time

## Migratory Bird FAQs

**Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**Why are subspecies showing up on my list?**

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering, or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Bald and Golden Eagle Protection Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

### **Proper interpretation and use of your migratory bird report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then

the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

### **Interpreting the Probability of Presence Graphs**

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

#### ***How is the probability of presence score calculated? The calculation is done in three steps:***

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### **Breeding Season ()**

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### **Survey Effort ()**

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### **No Data ()**

A week is marked as having no data if there were no survey events for that week.

### **Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

# Marine mammals

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act<sup>1</sup> and the Convention on International Trade in Endangered Species of Wild Fauna and Flora<sup>2</sup>.

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries<sup>3</sup> [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

1. The [Endangered Species Act](#) (ESA) of 1973.
2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following marine mammals under the responsibility of the U.S. Fish and Wildlife Service are potentially affected by activities in this location:

NAME

West Indian Manatee *Trichechus manatus*

<https://ecos.fws.gov/ecp/species/4469>

# Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on Federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

# This location overlaps the following CBRS unit(s):

## System Unit (SU)

*Most new Federal expenditures and financial assistance, including Federal flood insurance, are prohibited within System Units. **Federally-funded projects within System Units require consultation with the Service.** Consultation is not required for projects using private, state, or local funds.*

[P31 - SU 10/18/1982 - FI 10/1/1983](#)

[P31 - SU 11/16/1990 - FI 11/16/1990](#)

[P31 - SU 12/21/2018 - FI 12/21/2018](#)

## Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here:

<https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

## Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact [CBRA@fws.gov](mailto:CBRA@fws.gov).

## Facilities

## National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

# Fish hatcheries

There are no fish hatcheries at this location.

## Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

### ESTUARINE AND MARINE DEEPWATER

[E1UBL](#)

### ESTUARINE AND MARINE WETLAND

[E2AB3M](#)

[E2EM1P](#)

[E2USN](#)

[E2EM1N](#)

[E2SS3P](#)

### FRESHWATER EMERGENT WETLAND

[PEM1A](#)

[PEM1C](#)

[PEM1F](#)

[PEM1Cx](#)

### FRESHWATER FORESTED/SHRUB WETLAND

[PFO4/SS3C](#)

[PFO4C](#)

[PFO4Cd](#)

[PSS3/EM1C](#)

[PFO1C](#)

[PFO4/SS3A](#)

[PSS3C](#)  
[PFO4/1C](#)  
[PSS1C](#)  
[PFO4A](#)  
[PSS4/1A](#)  
[PSS1/EM1C](#)  
[PFO1/4C](#)  
[PFO2F](#)  
[PSS1F](#)  
[PFO3C](#)  
[PFO4/3C](#)

#### FRESHWATER POND

[PUBHx](#)  
[PUBFx](#)

#### LAKE

[L1UBH](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

**NOTE:** This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters.

Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

## **APPENDIX J: CULTURAL RESOURCES**

**Table J-1. Cultural Chronology of the Florida Panhandle/Northwestern Florida**

<b>Cultural Period</b>	<b>Subperiod</b>	<b>Phase/Culture(s)</b>	<b>Approximate Years Before Present</b>
Historic	None	American	195-present
Historic	None	European	350-195
Protohistoric	None	Bear Point	550/450-350
Mississippian	None	Fort Walton-Pensacola	1050-550/450
Woodland	Late Woodland	Weeden Island-Wakulla	1650-1050
Woodland	Middle Woodland	Santa Rosa/Swift Creek	1740-1650
Woodland	Early Woodland	Deptford	2500-1740
Archaic	Late Archaic	None	5000-2500
Archaic	Middle Archaic	None	7000-5000
Archaic	Early Archaic	None	9500-7000
Paleoindian	None	None	12000-9500

**Table J-2. Previous Surveys Conducted within 1.6 km (1.0 Mile) of the Project Survey Areas**

<b>FMSF Survey Number</b>	<b>Title</b>	<b>Year</b>	<b>Author</b>	<b>Intersecting</b>
138	<i>Partial Cultural Resource Inventory of Tyndall Air Force Base, Florida</i>	1979	Knudsen and Stoutamire	Y
1387	<i>Cultural resources investigation at Tyndall Air Force Base, Bay County, Florida</i>	1985	Campbell and Thomas	Y
3640	<i>Cultural Resources Survey of 300 Acres in the Vicinity of Felix Lake, Tyndall Air Force Base, Bay County, Florida</i>	1993	Campbell et al.	Y
22319	<i>Cultural Resource Assessment Review Request Cultural Resource Reconnaissance Survey of SR30 (US98) from Tyndall AFB to the Gulf County Line. By Carl McMurray, February 1993.</i>	1993	McMurray	N
9358	<i>Identification and Evaluation of Historic Properties Within the One-Half Mile Area of Potential Effects of the Proposed 150-foot Military Family Housing (Tyndall AFB) Wireless Telecommunications Tower (American Tower Corporation Number 224682), Bay Co.</i>	2003	Florida Archaeological Consulting, Inc.	Y
9493	<i>Identification and Evaluation of Historic Properties Within the One Mile Area of Potential Effects of the Proposed 160-foot Beacon Beach (Tyndall AFB) Wireless Telecommunications Tower (American Tower Corporation #224680), Bay County, Florida</i>	2003	Parker	Y
11134	<i>Assessment of Potential Effects Upon Historic Properties: Proposed 160-Foot Panama 11 Wireless Telecommunications Tower (Sprint Site Number 224680), Bay County, Florida</i>	2005	Parker	Y
13068	<i>Tyndall Air Force Base Archaeological Survey, Mapping, and Recordation (Phase I) for Redfish Point Extension and Saddle Club Area on Tyndall Air Force Base, Florida</i>	2006	Pleasant and Osburn	N
13469	<i>Archeological Survey of the AFFOR Area Tyndall Air Force Base, Panama City, Florida</i>	2006	Yates	N
20784	<i>Cultural Resources Survey of TY-7 Task Order T09-0007 Contract FA4890-04-D-0009-DK13 Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2012a	Bourgeois et al.	N
20365	<i>Cultural Resources Survey of TY-11 Contract FA4890-04-D-0009-DK13 Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2012b	Bourgeois et al.	N
20611	<i>Cultural Resources Survey of TY-6 (Task Order TY-09-0006) Contract FA4890-04-D-0009-DK13 Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2013a	Aubuchon et al.	N
20366	<i>Limited Phase I Archaeological Investigation &amp; Monitoring of Environmental Restoration Site LF005, Tyndall Air Force Base, Bay County Florida</i>	2013b	Aubuchon et al.	N
20958	<i>Cultural Resources Survey of TY-100 &amp; TY-101 (Task Order TY-13-0002) Contract W9128F-12-2-0002-0006, Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2014a	Campbell et al.	N
22655	<i>Cultural Resources Survey of TY-104 (Task Order TY-14-0005) Contract W9128F-12-2-0002 Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2014b	Campbell et al.	N
22358	<i>Cultural Resource Assessment Survey for the SR 30 (US 98) Alternative 7 Elevated Roadway at Tyndall Air Force Base Entrance Bay County, Florida</i>	2015	Chambless et al.	Y

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<b>FMSF Survey Number</b>	<b>Title</b>	<b>Year</b>	<b>Author</b>	<b>Intersecting</b>
22821	<i>Cultural Resources Survey of TY-103 (Task Order TY-14-0004) Contract W9128F-12-2-0002-0002 Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2015a	Campbell et al.	N
22291	<i>Cultural Resources Survey of TY-109 (Task Order TY-14-0010) Contract W9128F-12-2-0002 Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2015b	Campbell et al.	N
22826	<i>Archaeological Survey of TY-110, Tyndall Air Force Base, Bay County, Florida, Task Order TY-14-0012 Contract W9128F-12-2-0002</i>	2015c	Campbell et al.	N
22532	<i>Cultural Resources Survey of TY-111 (Task Order TY-14-0013) Contract W9128F-12-2-0002 Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2015d	Campbell et al.	Y
22457	<i>Cultural Resources Survey of TY-136 (Task Order TY-15-0002) Contract W9128F-12-2-0002 Cultural Resources Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2015e	Campbell et al.	N
24373	<i>Cultural Resources Survey of TY-108 (Task Order TY-14-0009) Contract W9128F-12-2-0002 Cultural Resource Management Support, Tyndall Air Force Base, Bay County, Florida</i>	2016a	Campbell et al.	N
23805	<i>Archaeological Survey of TY-141 Tyndall Air Force Base, Bay County, Florida, Task Order TY-16-0015, Contract W9128F-12-2-0002</i>	2016b	Campbell et al.	N
24705	<i>Archaeological Survey of TY-155 Tyndall Air Force Base, Bay County, Florida, Task Order TY-17-0007, Contract W9128F-12-2-0002</i>	2017	Brannon et al.	Y
24725	<i>Archaeological Surveys Conducted for the Upgrade for the Medical Facility Complex, Tyndall Air Force Base, Bay County, Florida</i>	2017	Brown	N
24164	<i>Archaeological Survey of TY-142 Tyndall Air Force Base, Bay County, Florida Task Order TY-16-0021 Contract W9128F-12-2-002</i>	2017a	Campbell et al.	N
24676	<i>Archaeological Survey of TY-143 Tyndall Air Force Base, Bay County, Florida Task Order TY-16-0016 Contract W9128F-12-2-0002</i>	2017b	Campbell et al.	N
24683	<i>Archaeological Survey of 120 Acres in TY-0110 at Tyndall Air Force Base</i>	2017	Gregory and Vasquez	Y
29727	<i>Phase I Archaeological Survey – Survey Areas TY-160, TY-161, and TY-167, Tyndall Air Force Base, Bay County, Florida</i>	2020	Bradley et al.	Y
27659	<i>A Cultural Resource Assessment Survey of the Tyndall AFB Microgrid, Bay County, Florida</i>	2021	Handley et al.	N
29338	<i>Evaluation of 24 World War II Ranges at Tyndall Air Force Base, Bay County, Florida</i>	2022	O'Rourke et al.	N
N/A	<i>Phase II NRHP Archaeological Evaluation of 8 Sites (8BY00117/118, 8BY00153, 8BY00154, 8BY00176, 8BY00187, 8BY02721, 8BY02724, and 8BY02378), Tyndall Air Force Base, Bay County, Florida</i>	2024	Bradley et al.	Y

Note: N/A = not applicable.

**Table J-3. Previous Archaeological Sites Recorded within 1.6 km (1.0 Mile) of the Project Survey Areas**

Site Number	Site Type	Time Period(s)	APE	Eligibility
8BY00025	Mound	Santa Rosa/Swift Creek and Weeden Island	N/A	Not assessed
8BY00137	Ring midden and village	Late Archaic, Santa Rosa/Swift Creek, Weeden Island, Fort Walton Mississippian, and early-to-mid 20th century	N/A	Potentially eligible
8BY00144	Artifact scatter	19th to 20th century	N/A	Ineligible
8BY00153	Shell midden	Santa Rosa/Swift Creek and Weeden Island	N/A	Ineligible
8BY00154	Shell midden	Deptford, Santa Rosa/Swift Creek, and Weeden Island	APE 3	Eligible
8BY00155	Shell midden	Deptford	N/A	Not assessed
8BY00187	Unidentified	Deptford	N/A	Eligible
8BY00188	Midden	Deptford	N/A	Eligible
8BY00189	Unidentified	Deptford	N/A	Not assessed
8BY00190	Artifact scatter	Undetermined Prehistoric	N/A	Not assessed
8BY00802	Artifact scatter	Weeden Island	N/A	Ineligible
8BY00803	Lithic scatter	Archaic (general)	N/A	Potentially eligible
8BY00804	Lithic scatter	Archaic (general)	N/A	Eligible
8BY00805	Artifact scatter	Undetermined Prehistoric	N/A	Ineligible
8BY00806	Isolated find	Undetermined Prehistoric	N/A	Ineligible
8BY00807	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY00808	Isolated find	Undetermined Prehistoric	N/A	Ineligible
8BY00809	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY00810	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY01294	Unidentified	Late Archaic, Deptford, and Weeden Island	N/A	Eligible
8BY01295	Campsite and artifact scatter	Undetermined Prehistoric	N/A	Ineligible
8BY01296	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY01297	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY01298	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY01382	Shell midden	Weeden Island	N/A	Insufficient information
8BY01391	Artifact scatter	20th century	N/A	Ineligible
8BY01478	Artifact scatter	Fort Walton Mississippian	N/A	Ineligible
8BY01479	Artifact scatter	Weeden Island	N/A	Ineligible
8BY01480	Town	Late 19th to early 20th century	N/A	Insufficient information
8BY01497	Artifact scatter	Late Archaic, Weeden Island, and late 19th to early 20th century	N/A	Insufficient information

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Site Number	Site Type	Time Period(s)	APE	Eligibility
8BY01498	Lithic scatter	Late Archaic	N/A	Insufficient information
8BY01499	Shell midden and artifact scatter	Late Archaic and 19th to 20th century	N/A	Insufficient information
8BY01500	Artifact scatter	Late Archaic	N/A	Not assessed
8BY01501	Artifact scatter	Late Archaic	N/A	Insufficient information
8BY01503	Artifact scatter	Late Archaic	N/A	Insufficient information
8BY01504	Artifact scatter	Late Archaic	N/A	Ineligible
8BY01505	Artifact scatter	Late Archaic	N/A	Insufficient information
8BY01506	Artifact scatter	Late Archaic	N/A	Insufficient information
8BY01507	Artifact scatter	Late Archaic	N/A	Insufficient information
8BY01508	Artifact scatter	Early, Middle, and Late Archaic, and Deptford	N/A	Insufficient information
8BY01509	Artifact scatter	Late Archaic and Woodland (general)	N/A	Insufficient information
8BY01510	Artifact scatter	Late Archaic	N/A	Insufficient information
8BY01516	Lithic scatter and historic homestead	Late Archaic and post-1920s	N/A	Ineligible
8BY01517	Lithic scatter	Late Archaic and Deptford	N/A	Insufficient information
8BY01518	Campsite	Late Archaic	N/A	Insufficient information
8BY01519	Lithic scatter	Late Archaic	N/A	Ineligible
8BY01520	Unidentified	19th to 20th century	N/A	Ineligible
8BY01521	Unidentified	Weeden Island	N/A	Not assessed
8BY01523	Lithic scatter	Late Archaic and Weeden Island	N/A	Insufficient information
8BY01524	Lithic scatter	Late Archaic and Weeden Island	N/A	Not assessed
8BY01528	Artifact scatter and homestead	Late Archaic, Deptford, Santa Rosa/Swift Creek, Weeden Island, Mississippian, and late 19th to early 20th century	N/A	Eligible
8BY01532	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY01533	Unidentified	Weeden Island and 19th to 20th century	N/A	Ineligible
8BY01534	Unidentified and Turpentine site	Weeden Island and Late 19th to early 20th century	N/A	Insufficient information
8BY01536	Lithic scatter	Late Archaic	N/A	Ineligible
8BY01650	Artifact scatter	Undetermined Prehistoric	N/A	Insufficient information
8BY01716	Unidentified	Late Archaic and Weeden Island	N/A	Insufficient information
8BY01717	Lithic scatter	Late Archaic	N/A	Insufficient information
8BY01718	Lithic scatter	Undetermined Prehistoric	N/A	Insufficient information
8BY01730	Unidentified	Late Archaic and 19th century	N/A	Insufficient information

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Site Number	Site Type	Time Period(s)	APE	Eligibility
8BY01731	Unidentified	Late Archaic	N/A	Ineligible
8BY01734	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY01738	Lithic scatter	Undetermined Prehistoric	N/A	Ineligible
8BY01739	Homestead	19th to 20th century	N/A	Insufficient information
8BY01740	Artifact scatter	19th to 20th century	N/A	Ineligible
8BY01742	Lithic scatter	Middle and Late Archaic	N/A	Insufficient information
8BY01743	Lithic scatter	Late Archaic		Insufficient information
8BY01772	Artifact scatter	Weeden Island, Fort Walton Mississippian, and late 19th to early 20th century	N/A	Eligible
8BY01773	Artifact scatter	Weeden Island and Fort Walton Mississippian	N/A	Ineligible
8BY01775	Unidentified	Santa Rosa/Swift Creek, Weeden Island, late 19th to mid-20th century	N/A	Insufficient information
8BY01776	Lithic scatter	Undetermined prehistoric and 19th to 20th century	N/A	Ineligible
8BY01779	Artifact scatter	Santa Rosa/Swift Creek and Weeden Island	N/A	Ineligible
8BY01780	Artifact scatter	Weeden Island	N/A	Ineligible
8BY01781	Artifact scatter	Weeden Island and 19th to 20th century	N/A	Ineligible
8BY01782	Shell midden and unidentified historic	Weeden Island and 19th to 20th century	APE 1	Ineligible
8BY01783	Artifact scatter	Late Archaic, Weeden Island, and 20th century	N/A	Insufficient information
8BY01784	Shell midden	Undetermined prehistoric	N/A	Ineligible
8BY01790	Artifact scatter	Undetermined prehistoric	N/A	Ineligible
8BY01794	Artifact scatter	Late Archaic, Weeden Island, and Mississippian	N/A	Insufficient information
8BY01795	Artifact scatter	Woodland (general)	N/A	Insufficient information
8BY01872	Lithic scatter	Undetermined prehistoric	N/A	Ineligible
8BY02269	Shell midden	Late Archaic, Deptford, and Weeden Island	N/A	Insufficient information
8BY02270	Lithic scatter	Undetermined prehistoric	N/A	Ineligible
8BY02271	Farm structure	20th century		Insufficient information
8BY02272	Artifact scatter	Woodland (general)	N/A	Ineligible
8BY02273	Refuse	20th century	N/A	Ineligible
8BY02274	Artifact scatter	Undetermined prehistoric	N/A	Ineligible
8BY02275	Unidentified	Late Archaic and late 19th to early 20th century	N/A	Insufficient information
8BY02276	Artifact scatter	Undetermined prehistoric	N/A	Ineligible
8BY02277	Unidentified	mid-20th century	N/A	Ineligible
8BY02278	WWII range- moving base range	mid-20th century	N/A	Ineligible

Site Number	Site Type	Time Period(s)	APE	Eligibility
8BY02279	Unidentified	Late Archaic and 20th century	N/A	Ineligible
8BY02280	Campsite	Weeden Island	N/A	Ineligible
8BY02281	Lithic scatter	Undetermined Prehistoric	N/A	Insufficient information
8BY02282	Lithic scatter	Undetermined prehistoric	N/A	Ineligible
8BY02283	Lithic scatter	Late Archaic	N/A	Insufficient information
8BY02284	Lithic scatter	Undetermined prehistoric	N/A	Ineligible
8BY02285	Lithic scatter	Undetermined prehistoric	N/A	Ineligible
8BY02286	Lithic scatter	Undetermined prehistoric	N/A	Ineligible
8BY02303	Campsite	Undetermined prehistoric	N/A	Ineligible
8BY02377	Unidentified	20th century	N/A	Ineligible
8BY02378	Shell midden and 20th century habitation	Weeden Island, Fort Walton Mississippian, Transitional Mississippian/Protohistoric, and mid-20th century	N/A	Eligible
8BY02379	Shell midden	Santa Rosa/Swift Creek and Fort Walton Mississippian	N/A	Insufficient information
8BY02380	WWII range- turret tower range 2	mid-20th century	N/A	Ineligible
8BY02381	WWII range- skeet range	mid-20th century	N/A	Ineligible
8BY02444	Shell midden and shell road	Weeden Island and historic (general)	N/A	Eligible
8BY02544	Artifact scatter	Late Archaic	N/A	Not assessed
8BY02720	Artifact scatter and historic fill	Undetermined prehistoric and mid-to-late 20th century	N/A	Ineligible
8BY02721	Artifact scatter	Deptford and Weeden Island	N/A	Ineligible
8BY02722	Artifact scatter	Weeden Island	N/A	Ineligible
8BY02723	Artifact scatter	Undetermined prehistoric	APE 3	Ineligible
8BY02724	Habitation	Weeden Island	N/A	Eligible
8BY02725	Artifact scatter	Mid-to-late 20th century	N/A	Ineligible
8BY02727	Artifact scatter	Undetermined prehistoric and mid-to-late 20th century	APE 3	Ineligible
8BY03069	Inadvertent discovery	Undetermined	N/A	Not assessed
8BY03171	WWII range- turret manipulation range	mid-20th century	N/A	Ineligible
8BY03229	Unidentified	Undetermined Prehistoric	N/A	Not assessed

Note: N/A = not applicable.

**Table J-4. Previous Historic Structures Recorded within 1.6 km (1.0 Mile) of the Project Survey Areas**

Site Number	Structure Name	Structure Use(s)	Construction Date	Standing	Eligibility	APE
8BY00888	Building #2715- Family Housing	Private residence	ca. 1935	No	Not assessed	N/A
8BY00889	Administrative Office Building 2	Military	1943	No	Ineligible	N/A
8BY00890	Administrative Office Building 1	Military	1943	No	Ineligible	N/A
8BY00891	Communications Facility	Military	1943	No	Ineligible	N/A
8BY00892	Administrative Office Building 3	Military	1943	No	Ineligible	N/A
8BY00921	Tyndall AFB Water Tower 2892	Water Tower or supply structure	1943	Yes	Ineligible	N/A
8BY01089	Building # 127-electrical power station	Power plant	1943	Yes	Not assessed	N/A
8BY01090	Building 129	Government offices	1943	Yes	Not assessed	N/A
8BY01091	Building 131	Warehouse and Government offices	1943	Yes	Not assessed	N/A
8BY01092	Building 149	Academic Building	1943	Yes	Not assessed	N/A
8BY01093	Building 150	Power plant	1944	Yes	Not assessed	N/A
8BY01094	Building 156	Hangar and academic Building	1943	No	Ineligible	N/A
8BY01095	Building 160	Government offices	1943	Yes	Not assessed	N/A
8BY01097	Building 444	Academic Building	1943	Yes	Not assessed	N/A
8BY01098	Building 446	Government offices	1943	Yes	Not assessed	N/A
8BY01099	Building 449	Warehouse	ca. 1943	No	Ineligible	N/A
8BY01100	Building 450	Warehouse	ca. 1943	No	Ineligible	N/A
8BY01101	Building 453	Shop	ca. 1943	No	Ineligible	N/A
8BY01102	Building 470	Academic Building	ca. 1943	No	Ineligible	N/A
8BY01103	Building 471	Government offices and academic Building	1943	Yes	Not assessed	N/A
8BY01104	Building 472	Academic Building	1943	Yes	Not assessed	N/A
8BY01105	Building 527	Warehouse, Government offices, and academic Building	1943	Yes	Not assessed	N/A
8BY01106	Building 529	Academic Building, laboratory, and shop	1943	No	Not assessed	N/A
8BY01107	Building 530	Warehouse and shop	1943	Yes	Not assessed	N/A
8BY01108	Building 531	Government offices and academic Building	1943	Yes	Not assessed	N/A
8BY01109	Building 532	Government offices and academic Building	1943	Yes	Not assessed	N/A
8BY01110	Building 535	Academic Building	1943	Yes	Not assessed	N/A
8BY01111	Building 538	Warehouse	1942	No	Not assessed	N/A
8BY01112	Building 580	Warehouse and Government offices	ca. 1943	No	Ineligible	N/A

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Site Number	Structure Name	Structure Use(s)	Construction Date	Standing	Eligibility	APE
8BY01113	Building 634	Theater	1943	Yes	Not assessed	N/A
8BY01114	Building 650	Dining hall and grocery store	1943	Yes	Not assessed	N/A
8BY01115	Building 653	Government offices and other	1943	Yes	Not assessed	N/A
8BY01116	Building 656	Other and academic Building	1943	Yes	Not assessed	N/A
8BY01117	Building 703	House of worship, academic Building, and vacant	1943	No	Eligible	N/A
8BY01118	Building 719	Community center and academic Building	1943	Yes	Not assessed	N/A
8BY01119	Building 722	Sewage treatment and supply structure	ca. 1943	Yes	Ineligible	N/A
8BY01120	Building 727	Government offices and other	1943	Yes	Not assessed	N/A
8BY01121	Building 729	Apartment and Government offices	ca. 1943	Yes	Ineligible	N/A
8BY01122	Building 733	Other and supply structure	ca. 1943	Yes	Ineligible	N/A
8BY01123	Building 741	Library and other	1943	Yes	Not assessed	N/A
8BY01124	Building 734	Government offices and retail establishment	1943	Yes	Not assessed	N/A
8BY01125	Building 745	Government offices	1943	No	Not assessed	N/A
8BY01126	Building 747	Government offices	1943	No	Not assessed	N/A
8BY01127	Building 806	Other	1943	Yes	Not assessed	N/A
8BY01128	Building 808	Government offices and other	1943	Yes	Not assessed	N/A
8BY01129	Building 810	Other	1943	Yes	Not assessed	N/A
8BY01130	Building 812	Government offices and other	1943	Yes	Not assessed	N/A
8BY01131	Building 1021	Government offices and other	1943	Yes	Not assessed	N/A
8BY01132	Building 5	Power plant	1952	Yes	Not assessed	N/A
8BY01142	Building 432	Government offices	ca. 1954	No	Ineligible	N/A
8BY01143	Building 501	Civic center	1954	Yes	Not assessed	N/A
8BY01144	Building 546	Academic Building	ca. 1955	Yes	Ineligible	N/A
8BY01145	Building 1256	Academic Building	1943	Yes	Not assessed	N/A
8BY01146	Building 1257	Warehouse and Government offices	1955	Yes	Not assessed	N/A
8BY01147	Building 1263	Warehouse	1951	No	Not assessed	N/A
8BY01148	Building 1279	Government offices, military, and vacant	1955	Yes	Ineligible	N/A
8BY01149	Building 1280	Military, power plant, and vacant	1955	Yes	Ineligible	N/A
8BY01150	Building 1287	Communications-related, government office, and other	ca. 1954	No	Ineligible	N/A
8BY01153	Building 2401	Sewage treatment	1951	Yes	Ineligible	N/A
8BY01154	Building 2547	Private residence	1951	Yes	Not assessed	N/A

Site Number	Structure Name	Structure Use(s)	Construction Date	Standing	Eligibility	APE
8BY01155	Building 2575	Warehouse	1951	No	Not assessed	N/A
8BY01156	Building 2588	Warehouse	1951	No	Not assessed	APE 1
8BY01157	Building 2599	Warehouse	1951	No	Not assessed	APE 1
8BY01158	Building 2613	Private residence	1951	No	Not assessed	APE 1
8BY01159	Building 2625	Private residence	1951	No	Not assessed	APE 1
8BY01160	Building 2635	Warehouse	1951	No	Not assessed	APE 1
8BY01161	Building 2639	Private residence	1951	No	Not assessed	APE 1
8BY01162	Building 2646	Warehouse	1951	No	Not assessed	APE 1
8BY01163	Building 2642	Private residence	1951	No	Not assessed	APE 1
8BY01164	Building 2658	Warehouse	1951	No	Not assessed	APE 1
8BY01171	Building 1424	Other	1943	Yes	Not assessed	N/A
8BY01172	Building 1422	Other	1943	Yes	Not assessed	N/A
8BY01173	Building 1420	Warehouse and Government offices	1943	Yes	Not assessed	N/A
8BY01174	Building 1406	Other and health center	1943	Yes	Not assessed	N/A
8BY01175	Building 1404	Other and health center	1943	Yes	Not assessed	N/A
8BY01176	Building 1444	Community center and government offices	1943	Yes	Not assessed	N/A
8BY01177	Building 1455	Community center and restaurant	1943	Yes	Not assessed	N/A
8BY01178	Building 1476	Government offices and military	1943	No	Eligible	N/A
8BY01179	Building 1506	Warehouse and grocery store	1944	Yes	Not assessed	N/A
8BY01180	Building 1530	Other	1943	Yes	Not assessed	N/A
8BY01181	Building 1532	Other	1943	Yes	Not assessed	N/A
8BY01182	Building 1580	Other	1943	Yes	Not assessed	N/A
8BY01183	Building 1582	Other	1943	Yes	Not assessed	N/A
8BY01184	Building 1602	Warehouse and other	1943	Yes	Not assessed	N/A
8BY01185	Building 1604	Other	1943	Yes	Not assessed	N/A
8BY01187	Building 1610	Government offices	1943	Yes	Not assessed	N/A
8BY01188	Building 1612	Other	1943	Yes	Not assessed	N/A
8BY01190	Building 1614	Other	1943	Yes	Not assessed	N/A
8BY01192	Building 2715	Private residence	1935	Yes	Not assessed	N/A
8BY01193	Building 3029	Lodge (club) Building and private residence	ca. 1935	No	Ineligible	N/A
8BY01204	Building 6029	Warehouse	1944	Yes	Not assessed	N/A

Site Number	Structure Name	Structure Use(s)	Construction Date	Standing	Eligibility	APE
8BY01205	Building 6032	Shop	1942	No	Not assessed	N/A
8BY01210	Building 1356	Government offices and other	1943	Yes	Not assessed	N/A
8BY01211	Building 1355	Government offices, hospital, and other	1943	Yes	Not assessed	N/A
8BY01212	Building 1354	Laundry and shop	1943	Yes	Not assessed	N/A
8BY01213	Building 1332	Community center (e.g., recreation hall)	1943	No	Not assessed	N/A
8BY01214	Building 1329	Government offices, hospital, and health center	1943	Yes	Not assessed	N/A
8BY01215	Building 1311	Other and health center	1943	No	Not assessed	N/A
8BY01216	Building 1309	Other and health center	1943	Yes	Not assessed	N/A
8BY01217	Building 1307	Government offices and fitness center	1943	Yes	Not assessed	N/A
8BY01218	Building 1016	Other and academic Building	1943	No	Not assessed	N/A
8BY01219	Building 1015	Other and academic Building	1943	No	Not assessed	N/A
8BY01220	Building 1013	Other and academic Building	1943	Yes	Not assessed	N/A
8BY01221	Building 1005	Government offices and other	1943	Yes	Not assessed	N/A
8BY01222	Building 1003	Military and post office	1943	Yes	Ineligible	N/A
8BY01223	Building 968	Service station	1948	Yes	Not assessed	N/A
8BY01224	Building 930	Government offices	1943	Yes	Not assessed	N/A
8BY01225	Building 920	Government offices and other	1943	Yes	Not assessed	N/A
8BY01226	Building 916	Government offices and library	1943	No	Not assessed	N/A
8BY01227	Building 909	Government offices, academic Building, and sewage treatment	1943	No	Not assessed	N/A
8BY01228	Building 856	Health center	1943	Yes	Not assessed	N/A
8BY01229	Building 852	Other and health center	1943	Yes	Not assessed	N/A
8BY01230	Building 849	Other	1943	Yes	Not assessed	N/A
8BY01231	Building 842	Government offices and other	1943	Yes	Not assessed	N/A
8BY01232	Building 822	Government offices and other	1943	Yes	Not assessed	N/A
8BY01233	Building 820	Government offices	1943	Yes	Not assessed	N/A
8BY01234	Building 818	Government offices and other	1943	Yes	Not assessed	N/A
8BY01235	Building 816	Other	1943	Yes	Not assessed	N/A
8BY01236	Building 1027	Community center (e.g., recreation hall)	1943	Yes	Not assessed	N/A
8BY01237	Building 1031	Government offices and other	1943	Yes	Not assessed	N/A
8BY01238	Building 1041	Government offices	1943	Yes	Not assessed	N/A
8BY01244	Building 1305	Government offices	1943	Yes	Not assessed	N/A

Site Number	Structure Name	Structure Use(s)	Construction Date	Standing	Eligibility	APE
8BY01395	Aircraft Support Equipment Shop/Storage	Military	1958	No	Ineligible	N/A
8BY01396	Base Supply and Equipment Base (Shed)	Military	1958	No	Ineligible	N/A
8BY01397	Shop Aircraft Maintenance Organizational	Military	1958	Yes	Ineligible	N/A
8BY01398	Petroleum Operations Building	Military	1958	Yes	Ineligible	N/A
8BY01401	Small Aircraft Maintenance Dock	Military	1959	No	Ineligible	N/A
8BY01402	Small Aircraft Maintenance Dock	Military	1959	No	Ineligible	N/A
8BY01403	Shop, Avionics	Military	1959	No	Ineligible	N/A
8BY01409	Combat Center Building	Military	1980	Yes	Ineligible	N/A
8BY01410	Fire Protection Water Storage	Military and supply structure	1959	No	Ineligible	N/A
8BY01411	Water Fire Pumping Station	Military	1959	No	Ineligible	N/A
8BY01412	Telecommunications Facility	Military	ca. 1960	Yes	Ineligible	N/A
8BY01413	Water Supply Building	Military and supply structure	ca. 1956	Yes	Ineligible	N/A
8BY01414	Gymnasium (Cardio Center)	Bank	1960	No	Ineligible	N/A
8BY01415	Education Center	Military	1987	Yes	Ineligible	N/A
8BY01416	Water Pump Station	Sewage treatment	1958	Yes	Ineligible	N/A
8BY01417	Radar Tower Building	Military	1959	Yes	Ineligible	N/A
8BY01418	Communications-Transmitter/Receiver	Military	1959	Yes	Ineligible	N/A
8BY01419	Academic Lecture Hall	Military	1958	Yes	Ineligible	N/A
8BY01420	GCI Radar Ops/Drone	Military	1957	Yes	Ineligible	N/A
8BY01421	Academic Lecture Hall	Military	1960	Yes	Ineligible	N/A
8BY01422	GCA RAPCON Support Building	Military	1956	Yes	Ineligible	N/A
8BY01423	Base Supply and Equipment Base (Shed)	Military	1959	No	Ineligible	N/A
8BY01424	Chapel Center	Temple (religious)	1959	Yes	Ineligible	N/A
8BY01431	Misc. Outdoor Recreation Facility	Military and recreation	1963	Yes	Ineligible	N/A
8BY01432	Fire Station	Firehouse and military	1958	No	Ineligible	N/A

Site Number	Structure Name	Structure Use(s)	Construction Date	Standing	Eligibility	APE
8BY01433	MWR Supply and NAF Central Storage	Military	1956	No	Ineligible	N/A
8BY01434	Misc. Recreation Building	Community center and military	1960	No	Ineligible	N/A
8BY01435	Base Engineer Storage Shed	Military	1973	No	Ineligible	N/A
8BY01436	Misc. Recreation Building	Community center and military	1973	Yes	Ineligible	N/A
8BY01777	Building # 560	Warehouse	ca. 1965	Yes	Ineligible	N/A
8BY01800	Building # 561	Service station	ca. 1965	Yes	Ineligible	N/A
8BY02054	Building 1465, Base Hospital	Hospital	1967	Yes	Ineligible	N/A
8BY02056	Building 1384-Visiting Officers Quarters	Military	1973	Yes	Ineligible	N/A
8BY02313	Medical Storage Warehouse	Warehouse	1982	No	Ineligible	N/A
8BY02382	Type A22, Wood Manor Family Housing	Duplex	ca. 1970	Yes	Ineligible	N/A
8BY02383	Type A32, Wood Manor Family Housing	Duplex	ca. 1970	Yes	Ineligible	N/A
8BY02390	Building 1275 Telephone Building	Communications-related	ca. 1958	Yes	Ineligible	N/A
8BY02643	Bldg. 462 P.M.E Laboratory	Laboratory and vacant	1973	Yes	Ineligible	N/A
8BY03232	Building 400, Petroleum Operations	Government offices	ca. 1987	Yes	Ineligible	N/A

Note: N/A = not applicable.