

APPENDIX A – AIR CONFORMITY APPLICABILITY MODEL REPORT

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

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: Fort George G. Meade (FMMD)

State: Maryland

County(s): Anne Arundel

Regulatory Area(s): Anne Arundel County and Baltimore County, MD; Baltimore, MD

b. Action Title: Fort George G. Meade Defense Cyber Crime Center DC3 Facility

c. Project Number/s (if applicable):

d. Projected Action Start Date: 1 / 2027

e. Action Description:

The DC3 Facility would consist of approximately 262,000 gross square feet (GSF) of space within a 6-story structure. Space within the facility would be programmed to accommodate 879 personnel and 240 students.

The parking garage would consist of approximately 294,150 GSF for 900 parking spaces within 6 stories. Associated FMMD internal road improvements include modifications to 9th, Y, and Ernie Pyle Streets. 9th Street would serve as the primary access to the facility and B2600. Y Street would provide access to and from the parking garage and the utility yard. Access to the delivery dock and services such as trash would come from Ernie Pyle Street and would be designed in accordance with the U.S. Army Garrison Directorate of Public Works.

The final site layout and facility massing is in development. While the Proposed Action Area will not change, the U.S. Army continues to evaluate configurations during the design process. All designs include the new DC3 facility, parking garage, and associated road improvements described in this EA. As anticipated impacts would be consistent for the Proposed Project Area regardless of specific design, analysis contained in this EA does not consider a final design of the facility. Rather, early-design conceptual layouts, along with the unit's programming requirements, are used as a basis for analysis. Site design includes sidewalks, landscaping, utility connections, and stormwater management.

The Proposed Action Area consists of 9.9 acres within FMMD. It is bound by 9th Street on the north, Ernie Pyle Street on the east, and 6th Avenue on the south. The western boundary extends into a vacant previously developed area. The site is generally flat, with a slight slope from north to south. Two structures are proposed as part of the action alternative. Utilities are readily available. The Proposed Action Area includes sites for temporary infrastructure (staging areas) as well as permanent infrastructure (access roads, pedestrian circulation, stormwater management, etc.). Design will be finalized after the NEPA analysis is completed.

f. Point of Contact:

Name: William Kaufell
Title: Acoustics/AQ Group Leader
Organization: Terracon
Email: wckaufell@terracon.com
Phone Number: 717-991-5663

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2. Analysis: Total reasonably foreseeable net change in direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" (highest annual emissions) and "steady state" (no net gain/loss in emission stabilized and the action is fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

All emissions estimates were derived from various sources using the methods, algorithms, and emission factors 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*. For greater details of this analysis, refer to the Detail ACAM Report.

applicable
 not applicable

Conformity Analysis Summary:

2027

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Anne Arundel County and Baltimore County, MD			
VOC	0.094		
NOx	0.877		
CO	1.064		
SOx	0.002	100	No
PM 10	4.392		
PM 2.5	0.033		
Pb	0.000		
NH3	0.005		
Baltimore, MD			
VOC	0.094	50	No
NOx	0.877	50	No
CO	1.064		
SOx	0.002		
PM 10	4.392		
PM 2.5	0.033		
Pb	0.000		
NH3	0.005		

2028

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Anne Arundel County and Baltimore County, MD			
VOC	3.401		
NOx	3.662		
CO	4.289		
SOx	0.009	100	No
PM 10	0.163		
PM 2.5	0.107		
Pb	0.000		
NH3	0.044		
Baltimore, MD			
VOC	3.401	50	No

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

NOx	3.662	50	No
CO	4.289		
SOx	0.009		
PM 10	0.163		
PM 2.5	0.107		
Pb	0.000		
NH3	0.044		

2029

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Anne Arundel County and Baltimore County, MD			
VOC	4.188		
NOx	2.299		
CO	8.985		
SOx	0.012	100	No
PM 10	0.141		
PM 2.5	0.087		
Pb	0.000		
NH3	0.109		
Baltimore, MD			
VOC	4.188	50	No
NOx	2.299	50	No
CO	8.985		
SOx	0.012		
PM 10	0.141		
PM 2.5	0.087		
Pb	0.000		
NH3	0.109		

2030 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Anne Arundel County and Baltimore County, MD			
VOC	1.708		
NOx	1.464		
CO	20.157		
SOx	0.023	100	No
PM 10	0.188		
PM 2.5	0.099		
Pb	0.000		
NH3	0.267		
Baltimore, MD			
VOC	1.708	50	No
NOx	1.464	50	No
CO	20.157		
SOx	0.023		
PM 10	0.188		
PM 2.5	0.099		
Pb	0.000		
NH3	0.267		

AIR CONFORMITY APPLICABILITY MODEL REPORT RECORD OF CONFORMITY ANALYSIS (ROCA)

The Criteria Pollutants (or their precursors) with a General Conformity threshold listed in the table above are pollutants within one or more designated nonattainment or maintenance area/s for the associated National Ambient Air Quality Standard (NAAQS). These pollutants are driving this GCR Applicability Analysis. Pollutants exceeding the GCR thresholds must be further evaluated potentially through a GCR Determination.

The pollutants without a General Conformity threshold are pollutants only within areas designated attainment for the associated NAAQS. These pollutants have an insignificance indicator for VOC, NO_x, CO, SO_x, PM 10, PM 2.5, and NH₃ of 250 ton/yr (Prevention of Significant Deterioration major source threshold) and 25 ton/yr for Pb (GCR de minimis value). Pollutants below their insignificance indicators are at rates so insignificant that they will not cause or contribute to an exceedance of one or more NAAQSs. These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Refer to the *Level II, Air Quality Quantitative Assessment Insignificance Indicators* for further details.

None of the annual net change in estimated emissions associated with this action are above the GCR threshold values established at 40 CFR 93.153 (b); therefore, the proposed Action has an insignificant impact on Air Quality and a General Conformity Determination is not applicable.

William Kaufell, Acoustics/AQ Group Leader
Name, Title

Feb 18 2026
Date

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: Fort George G. Meade (FMMD)
State: Maryland
County(s): Anne Arundel
Regulatory Area(s): Anne Arundel County and Baltimore County, MD; Baltimore, MD

- Action Title: Fort Meade Defense Cyber Crime Center DC3 Facility

- Project Number/s (if applicable):

- Projected Action Start Date: 1 / 2027

- Action Purpose and Need:

Provide an new cyber security and crime center

- Action Description:

The DC3 Facility would consist of approximately 262,000 gross square feet (GSF) of space within a 6-story structure. Space within the facility would be programmed to accommodate 879 personnel and 240 students.

The parking garage would consist of approximately 294,150 GSF for 900 parking spaces within 6 stories. Associated FMMD internal road improvements include modifications to 9th, Y, and Ernie Pyle Streets. 9th Street would serve as the primary access to the facility and B2600. Y Street would provide access to and from the parking garage and the utility yard. Access to the delivery dock and services such as trash would come from Ernie Pyle Street and would be designed in accordance with the U.S. Army Garrison Directorate of Public Works.

The final site layout and facility massing is in development. While the Proposed Action Area will not change, the U.S. Army continues to evaluate configurations during the design process. All designs include the new DC3 facility, parking garage, and associated road improvements described in this EA. As anticipated impacts would be consistent for the Proposed Project Area regardless of specific design, analysis contained in this EA does not consider a final design of the facility. Rather, early-design conceptual layouts, along with the unit's programming requirements, are used as a basis for analysis. Site design includes sidewalks, landscaping, utility connections, and stormwater management.

The Proposed Action Area consists of 9.9 acres within FMMD. It is bound by 9th Street on the north, Ernie Pyle Street on the east, and 6th Avenue on the south. The western boundary extends into a vacant previously developed area. The site is generally flat, with a slight slope from north to south. Two structures are proposed as part of the action alternative. Utilities are readily available. The Proposed Action Area includes sites for temporary infrastructure (staging areas) as well as permanent infrastructure (access roads, pedestrian circulation, stormwater management, etc.). Design will be finalized after the NEPA analysis is completed.

- Point of Contact

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- Activity List:

	Activity Type	Activity Title
2.	Construction / Demolition	Construction of cyber building
3.	Construction / Demolition	Parking Garage

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4.	Emergency Generator	Emergency Gen sets
5.	Personnel	Personnel Staff etc
6.	Heating	HVAC

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. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

County: Anne Arundel

Regulatory Area(s): Baltimore, MD; Anne Arundel County and Baltimore County, MD

- Activity Title: Construction of cyber building

- Activity Description:

- Activity Start Date

Start Month: 1

Start Month: 2027

- Activity End Date

Indefinite: False

End Month: 5

End Month: 2029

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	3.415290
SO _x	0.008029
NO _x	3.561604
CO	4.303921

Pollutant	Total Emissions (TONs)
PM 10	4.509455
PM 2.5	0.111228
Pb	0.000000
NH ₃	0.035319

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Total Emissions (TONs)
CH ₄	0.039147
N ₂ O	0.080125

Pollutant	Total Emissions (TONs)
CO ₂	1170.579544
CO ₂ e	1192.908344

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 4

Start Quarter: 1

Start Year: 2027

- Phase Duration

Number of Month: 5

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Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 52500
 Amount of Material to be Hauled On-Site (yd³): 0
 Amount of Material to be Hauled Off-Site (yd³): 52500

- Site Grading 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
Graders Composite	1	6
Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 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

- 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

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Graders Composite [HP: 148] [LF: 0.41]							
	VOC	SO _x	NO _x	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 _x	NO _x	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 _x	NO _x	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 _x	NO _x	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) (default)

Graders Composite [HP: 148] [LF: 0.41]							
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	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02155	0.00431	531.25291	533.07604
Other Construction Equipment Composite [HP: 82] [LF: 0.42]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02140	0.00428	527.44206	529.25211
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02160	0.00432	532.55942	534.38703
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02148	0.00430	529.61807	531.43559

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.25411	0.00265	0.10564	3.28584	0.02208	0.00754	0.04842
LDGT	0.22028	0.00339	0.15619	3.08087	0.02336	0.00865	0.04081
HDGV	0.65277	0.00730	0.52393	8.02015	0.04886	0.02383	0.08543
LDDV	0.13452	0.00125	0.17872	5.83044	0.02330	0.00811	0.01646
LDDT	0.13442	0.00125	0.21302	3.00728	0.02184	0.00815	0.01627
HDDV	0.11882	0.00417	2.39867	1.53494	0.15670	0.07360	0.06647
MC	2.29644	0.00342	0.66110	11.55934	0.03155	0.02148	0.05459

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01409	0.00478	313.18315	314.84512
LDGT	0.01511	0.00702	399.93117	402.21416
HDGV	0.04413	0.02370	862.70102	870.21748
LDDV	0.05510	0.00068	370.43048	372.15479
LDDT	0.03492	0.00101	373.43567	374.68216
HDDV	0.03145	0.16376	1242.39376	1286.66993
MC	0.10800	0.00295	394.37226	398.17826

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM_{10FD} = (20 * ACRE * WD) / 2000$$

PM_{10FD}: 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_{POL}: 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_{POL}: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

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2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)
HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
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_{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

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 8
Start Quarter: 1
Start Year: 2027

- Phase Duration

Number of Month: 5
Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

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Area of Site to be Trenched/Excavated (ft²): 35000
 Amount of Material to be Hauled On-Site (yd³): 0
 Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching 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
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)
 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

- 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

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]							
	VOC	SO _x	NO _x	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 _x	NO _x	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 _x	NO _x	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) (default)

Excavators Composite [HP: 36] [LF: 0.38]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02383	0.00477	587.39431	589.41010
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02385	0.00477	587.92708	589.94470
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02148	0.00430	529.61807	531.43559

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.25411	0.00265	0.10564	3.28584	0.02208	0.00754	0.04842
LDGT	0.22028	0.00339	0.15619	3.08087	0.02336	0.00865	0.04081
HDGV	0.65277	0.00730	0.52393	8.02015	0.04886	0.02383	0.08543
LDDV	0.13452	0.00125	0.17872	5.83044	0.02330	0.00811	0.01646
LDDT	0.13442	0.00125	0.21302	3.00728	0.02184	0.00815	0.01627
HDDV	0.11882	0.00417	2.39867	1.53494	0.15670	0.07360	0.06647
MC	2.29644	0.00342	0.66110	11.55934	0.03155	0.02148	0.05459

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO _{2e}
LDGV	0.01409	0.00478	313.18315	314.84512
LDGT	0.01511	0.00702	399.93117	402.21416
HDGV	0.04413	0.02370	862.70102	870.21748
LDDV	0.05510	0.00068	370.43048	372.15479
LDDT	0.03492	0.00101	373.43567	374.68216
HDDV	0.03145	0.16376	1242.39376	1286.66993
MC	0.10800	0.00295	394.37226	398.17826

2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: 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_{POL}: 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_{POL}: 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_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
 HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)
 HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)
 HC: Average Hauling Truck Capacity (yd³)
 (1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
 HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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

2.3 Building Construction Phase

2.3.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 1
Start Quarter: 1
Start Year: 2028

- Phase Duration

Number of Month: 17
Number of Days: 0

2.3.2 Building Construction Phase Assumptions

- General Building Construction Information

Building Category: Office or Industrial
Area of Building (ft²): 262000
Height of Building (ft): 85
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

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Forklifts Composite	2	7
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	8

- Vehicle Exhaust

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- 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): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDTV	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	HDTV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

2.3.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Cranes Composite [HP: 367] [LF: 0.29]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.18743	0.00487	1.60126	1.62784	0.06620	0.06090
Forklifts Composite [HP: 82] [LF: 0.2]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.21591	0.00487	2.03219	3.56543	0.07876	0.07246
Generator Sets Composite [HP: 14] [LF: 0.74]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.53548	0.00793	4.28855	2.84630	0.16952	0.15596
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.17299	0.00489	1.74942	3.49553	0.04787	0.04404
Welders Composite [HP: 46] [LF: 0.45]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.40942	0.00735	3.37086	4.43151	0.06385	0.05874

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Cranes Composite [HP: 367] [LF: 0.29]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02141	0.00428	527.75405	529.56516
Forklifts Composite [HP: 82] [LF: 0.2]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02138	0.00428	527.02495	528.83357
Generator Sets Composite [HP: 14] [LF: 0.74]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}

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Emission Factors	0.02305	0.00461	568.29959	570.24985
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH₄	N₂O	CO₂	CO₂e
Emission Factors	0.02148	0.00430	529.56544	531.38277
Welders Composite [HP: 46] [LF: 0.45]				
	CH₄	N₂O	CO₂	CO₂e
Emission Factors	0.02305	0.00461	568.30744	570.25772

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.25411	0.00265	0.10564	3.28584	0.02208	0.00754	0.04842
LDGT	0.22028	0.00339	0.15619	3.08087	0.02336	0.00865	0.04081
HDGV	0.65277	0.00730	0.52393	8.02015	0.04886	0.02383	0.08543
LDDV	0.13452	0.00125	0.17872	5.83044	0.02330	0.00811	0.01646
LDDT	0.13442	0.00125	0.21302	3.00728	0.02184	0.00815	0.01627
HDDV	0.11882	0.00417	2.39867	1.53494	0.15670	0.07360	0.06647
MC	2.29644	0.00342	0.66110	11.55934	0.03155	0.02148	0.05459

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01409	0.00478	313.18315	314.84512
LDGT	0.01511	0.00702	399.93117	402.21416
HDGV	0.04413	0.02370	862.70102	870.21748
LDDV	0.05510	0.00068	370.43048	372.15479
LDDT	0.03492	0.00101	373.43567	374.68216
HDDV	0.03145	0.16376	1242.39376	1286.66993
MC	0.10800	0.00295	394.37226	398.17826

2.3.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE_{POL}: 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_{POL}: 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_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

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VMT_{VE}: Vehicle Exhaust 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

- 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_{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 (ft²)
BH: Height of Building (ft)
(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)
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

2.4 Architectural Coatings Phase

2.4.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 9
Start Quarter: 1
Start Year: 2028

- Phase Duration

Number of Month: 8
Number of Days: 0

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2.4.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
Total Square Footage (ft²): 262000
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

2.4.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.25411	0.00265	0.10564	3.28584	0.02208	0.00754	0.04842
LDGT	0.22028	0.00339	0.15619	3.08087	0.02336	0.00865	0.04081
HDGV	0.65277	0.00730	0.52393	8.02015	0.04886	0.02383	0.08543
LDDV	0.13452	0.00125	0.17872	5.83044	0.02330	0.00811	0.01646
LDDT	0.13442	0.00125	0.21302	3.00728	0.02184	0.00815	0.01627
HDDV	0.11882	0.00417	2.39867	1.53494	0.15670	0.07360	0.06647
MC	2.29644	0.00342	0.66110	11.55934	0.03155	0.02148	0.05459

- Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO _{2e}
LDGV	0.01409	0.00478	313.18315	314.84512
LDGT	0.01511	0.00702	399.93117	402.21416
HDGV	0.04413	0.02370	862.70102	870.21748
LDDV	0.05510	0.00068	370.43048	372.15479
LDDT	0.03492	0.00101	373.43567	374.68216
HDDV	0.03145	0.16376	1242.39376	1286.66993
MC	0.10800	0.00295	394.37226	398.17826

2.4.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

VMT_{WT}: 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 (ft²)

800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

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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

- Off-Gassing Emissions per Phase
 $VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$

VOC_{AC}: Architectural Coating VOC Emissions (TONs)
 BA: Area of Building (ft²)
 2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)
 0.0116: Emission Factor (lb/ft²)
 2000: Conversion Factor pounds to tons

2.5 Paving Phase

2.5.1 Paving Phase Timeline Assumptions

- Phase Start Date

Start Month: 3
 Start Quarter: 1
 Start Year: 2029

- Phase Duration

Number of Month: 3
 Number of Days: 0

2.5.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 294150

- Paving 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
Pavers Composite	1	8
Paving Equipment Composite	2	6
Rollers Composite	2	6

- 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

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

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	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.5.3 Paving Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Pavers Composite [HP: 81] [LF: 0.42]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.20960	0.00486	2.24447	3.43144	0.09838	0.09051
Paving Equipment Composite [HP: 89] [LF: 0.36]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.16367	0.00487	1.84528	3.38442	0.05354	0.04925
Rollers Composite [HP: 36] [LF: 0.38]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.48930	0.00542	3.48000	4.09412	0.12533	0.11530

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Pavers Composite [HP: 81] [LF: 0.42]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02133	0.00427	525.84285	527.64741
Paving Equipment Composite [HP: 89] [LF: 0.36]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02140	0.00428	527.61090	529.42153
Rollers Composite [HP: 36] [LF: 0.38]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02382	0.00476	587.11055	589.12536

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.25411	0.00265	0.10564	3.28584	0.02208	0.00754	0.04842
LDGT	0.22028	0.00339	0.15619	3.08087	0.02336	0.00865	0.04081
HDGV	0.65277	0.00730	0.52393	8.02015	0.04886	0.02383	0.08543
LDDV	0.13452	0.00125	0.17872	5.83044	0.02330	0.00811	0.01646
LDDT	0.13442	0.00125	0.21302	3.00728	0.02184	0.00815	0.01627
HDDV	0.11882	0.00417	2.39867	1.53494	0.15670	0.07360	0.06647
MC	2.29644	0.00342	0.66110	11.55934	0.03155	0.02148	0.05459

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01409	0.00478	313.18315	314.84512
LDGT	0.01511	0.00702	399.93117	402.21416
HDGV	0.04413	0.02370	862.70102	870.21748
LDDV	0.05510	0.00068	370.43048	372.15479
LDDT	0.03492	0.00101	373.43567	374.68216
HDDV	0.03145	0.16376	1242.39376	1286.66993
MC	0.10800	0.00295	394.37226	398.17826

2.5.4 Paving Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * EF_{POL}) / 2000$$

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

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CEE_{POL}: 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_{POL}: 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_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)
PA: Paving Area (ft²)
0.25: Thickness of Paving Area (ft)
(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)
HC: Average Hauling Truck Capacity (yd³)
(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)
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 (ft²)

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43560: Conversion Factor square feet to acre (43560 ft² / acre)² / acre)
 2000: Conversion Factor square pounds to TONs (2000 lb / TON)

3. Construction / Demolition

3.1 General Information & Timeline Assumptions

- Activity Location

County: Anne Arundel
Regulatory Area(s): Baltimore, MD; Anne Arundel County and Baltimore County, MD

- Activity Title: Parking Garage

- Activity Description:

Construction of parking garage

- Activity Start Date

Start Month: 1
Start Month: 2028

- Activity End Date

Indefinite: False
End Month: 5
End Month: 2029

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	3.699119
SO _x	0.006548
NO _x	2.789387
CO	3.314101

Pollutant	Total Emissions (TONs)
PM 10	0.124234
PM 2.5	0.081865
Pb	0.000000
NH ₃	0.033665

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Total Emissions (TONs)
CH ₄	0.032489
N ₂ O	0.077262

Pollutant	Total Emissions (TONs)
CO ₂	1001.158972
CO ₂ e	1022.542568

3.1 Building Construction Phase

3.1.1 Building Construction Phase Timeline Assumptions

- Phase Start Date

Start Month: 1
Start Quarter: 1
Start Year: 2028

- Phase Duration

Number of Month: 17
Number of Days: 0

3.1.2 Building Construction Phase Assumptions

- General Building Construction Information

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Building Category: Office or Industrial
Area of Building (ft²): 294150
Height of Building (ft): 85
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	2	7
Generator Sets Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8
Welders Composite	3	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

- 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

3.1.3 Building Construction Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Cranes Composite [HP: 367] [LF: 0.29]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.18743	0.00487	1.60126	1.62784	0.06620	0.06090
Forklifts Composite [HP: 82] [LF: 0.2]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.21591	0.00487	2.03219	3.56543	0.07876	0.07246
Generator Sets Composite [HP: 14] [LF: 0.74]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.53548	0.00793	4.28855	2.84630	0.16952	0.15596
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.17299	0.00489	1.74942	3.49553	0.04787	0.04404

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Welders Composite [HP: 46] [LF: 0.45]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.40942	0.00735	3.37086	4.43151	0.06385	0.05874

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Cranes Composite [HP: 367] [LF: 0.29]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02141	0.00428	527.75405	529.56516
Forklifts Composite [HP: 82] [LF: 0.2]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02138	0.00428	527.02495	528.83357
Generator Sets Composite [HP: 14] [LF: 0.74]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02305	0.00461	568.29959	570.24985
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02148	0.00430	529.56544	531.38277
Welders Composite [HP: 46] [LF: 0.45]				
	CH ₄	N ₂ O	CO ₂	CO _{2e}
Emission Factors	0.02305	0.00461	568.30744	570.25772

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.25031	0.00259	0.09634	3.16846	0.02149	0.00740	0.04669
LDGT	0.21252	0.00333	0.14060	2.92595	0.02290	0.00851	0.03930
HDGV	0.63332	0.00721	0.49709	7.53644	0.04808	0.02346	0.08361
LDDV	0.10712	0.00124	0.14060	5.78328	0.02213	0.00739	0.01675
LDDT	0.11164	0.00124	0.16923	2.62146	0.02124	0.00779	0.01612
HDDV	0.10789	0.00409	2.18170	1.49176	0.14993	0.06745	0.06703
MC	2.28397	0.00342	0.65970	11.45153	0.03142	0.02148	0.05489

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO _{2e}
LDGV	0.01346	0.00467	305.43882	307.05239
LDGT	0.01426	0.00680	393.48818	395.68907
HDGV	0.04309	0.02303	851.22620	858.53487
LDDV	0.05623	0.00068	367.82353	369.57934
LDDT	0.03448	0.00101	368.55594	369.79020
HDDV	0.03127	0.16500	1220.13024	1264.72975
MC	0.10681	0.00295	394.40420	398.17599

3.1.4 Building Construction Phase Formula(s)

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE_{POL}: 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_{POL}: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

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2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = BA * BH * (0.42 / 1000) * HT$$

VMT_{VE} : Vehicle Exhaust Vehicle Miles Travel (miles)

BA: Area of Building (ft²)

BH: Height of Building (ft)

(0.42 / 1000): Conversion Factor ft³ to trips (0.42 trip / 1000 ft³)

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: 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_{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_{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 (ft²)

BH: Height of Building (ft)

(0.38 / 1000): Conversion Factor ft³ to trips (0.38 trip / 1000 ft³)

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

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

3.2 Architectural Coatings Phase

3.2.1 Architectural Coatings Phase Timeline Assumptions

- Phase Start Date

Start Month: 9
 Start Quarter: 1
 Start Year: 2028

- Phase Duration

Number of Month: 9
 Number of Days: 0

3.2.2 Architectural Coatings Phase Assumptions

- General Architectural Coatings Information

Building Category: Non-Residential
 Total Square Footage (ft²): 294150
 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

3.2.3 Architectural Coatings Phase Emission Factor(s)

- Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.25031	0.00259	0.09634	3.16846	0.02149	0.00740	0.04669
LDGT	0.21252	0.00333	0.14060	2.92595	0.02290	0.00851	0.03930
HDGV	0.63332	0.00721	0.49709	7.53644	0.04808	0.02346	0.08361
LDDV	0.10712	0.00124	0.14060	5.78328	0.02213	0.00739	0.01675
LDDT	0.11164	0.00124	0.16923	2.62146	0.02124	0.00779	0.01612
HDDV	0.10789	0.00409	2.18170	1.49176	0.14993	0.06745	0.06703
MC	2.28397	0.00342	0.65970	11.45153	0.03142	0.02148	0.05489

- Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO _{2e}
LDGV	0.01346	0.00467	305.43882	307.05239
LDGT	0.01426	0.00680	393.48818	395.68907
HDGV	0.04309	0.02303	851.22620	858.53487
LDDV	0.05623	0.00068	367.82353	369.57934
LDDT	0.03448	0.00101	368.55594	369.79020
HDDV	0.03127	0.16500	1220.13024	1264.72975
MC	0.10681	0.00295	394.40420	398.17599

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3.2.4 Architectural Coatings Phase Formula(s)

- Worker Trips Emissions per Phase

$$VMT_{WT} = (1 * WT * PA) / 800$$

- VMT_{WT}: 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 (ft²)
- 800: Conversion Factor square feet to man days (1 ft² / 1 man * day)

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

- 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

- Off-Gassing Emissions per Phase

$$VOC_{AC} = (AB * 2.0 * 0.0116) / 2000.0$$

- VOC_{AC}: Architectural Coating VOC Emissions (TONs)
- BA: Area of Building (ft²)
- 2.0: Conversion Factor total area to coated area (2.0 ft² coated area / total area)
- 0.0116: Emission Factor (lb/ft²)
- 2000: Conversion Factor pounds to tons

3.3 Paving Phase

3.3.1 Paving Phase Timeline Assumptions

- Phase Start Date

- Start Month: 3
- Start Quarter: 1
- Start Year: 2029

- Phase Duration

- Number of Month: 3
- Number of Days: 0

3.3.2 Paving Phase Assumptions

- General Paving Information

Paving Area (ft²): 294150

- Paving 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
Pavers Composite	1	8

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Paving Equipment Composite	2	6
Rollers Composite	2	6

- 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

- 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

3.3.3 Paving Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Pavers Composite [HP: 81] [LF: 0.42]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.20960	0.00486	2.24447	3.43144	0.09838	0.09051
Paving Equipment Composite [HP: 89] [LF: 0.36]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.16367	0.00487	1.84528	3.38442	0.05354	0.04925
Rollers Composite [HP: 36] [LF: 0.38]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.48930	0.00542	3.48000	4.09412	0.12533	0.11530

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Pavers Composite [HP: 81] [LF: 0.42]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02133	0.00427	525.84285	527.64741
Paving Equipment Composite [HP: 89] [LF: 0.36]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02140	0.00428	527.61090	529.42153
Rollers Composite [HP: 36] [LF: 0.38]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02382	0.00476	587.11055	589.12536

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.25031	0.00259	0.09634	3.16846	0.02149	0.00740	0.04669
LDGT	0.21252	0.00333	0.14060	2.92595	0.02290	0.00851	0.03930
HDGV	0.63332	0.00721	0.49709	7.53644	0.04808	0.02346	0.08361
LDDV	0.10712	0.00124	0.14060	5.78328	0.02213	0.00739	0.01675
LDDT	0.11164	0.00124	0.16923	2.62146	0.02124	0.00779	0.01612
HDDV	0.10789	0.00409	2.18170	1.49176	0.14993	0.06745	0.06703
MC	2.28397	0.00342	0.65970	11.45153	0.03142	0.02148	0.05489

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01346	0.00467	305.43882	307.05239

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LDGT	0.01426	0.00680	393.48818	395.68907
HDGV	0.04309	0.02303	851.22620	858.53487
LDDV	0.05623	0.00068	367.82353	369.57934
LDDT	0.03448	0.00101	368.55594	369.79020
HDDV	0.03127	0.16500	1220.13024	1264.72975
MC	0.10681	0.00295	394.40420	398.17599

3.3.4 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_{POL}: 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_{POL}: 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_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

PA: Paving Area (ft²)

0.25: Thickness of Paving Area (ft)

(1 / 27): Conversion Factor cubic feet to cubic yards (1 yd³ / 27 ft³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

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

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

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 (ft²)
 43560: Conversion Factor square feet to acre (43560 ft² / acre)² / 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: Anne Arundel
Regulatory Area(s): Baltimore, MD; Anne Arundel County and Baltimore County, MD

- Activity Title: Emergency Gen sets

- Activity Description:

3 2,000 KW standby generators o Fuel oil

- Activity Start Date

Start Month: 9
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	0.005729
SO _x	0.000028
NO _x	0.092340
CO	0.016828

Pollutant	Emissions Per Year (TONs)
PM 10	0.001835
PM 2.5	0.001835
Pb	0.000000
NH ₃	0.000000

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Emissions Per Year (TONs)
CH ₄	0.000105
N ₂ O	0.000011

Pollutant	Emissions Per Year (TONs)
CO ₂	5.584140
CO ₂ e	5.589000

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4.2 Emergency Generator Assumptions

- Emergency Generator

Type of Fuel used in Emergency Generator: Natural Gas - 2 Stroke Lean Burn
Number of Emergency Generators: 3

- 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 _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃
0.000943	0.000005	0.015245	0.002774	0.000302	0.000302		

- Emergency Generators Greenhouse Gasses Pollutant Emission Factor (lb/hp-hr)

CH ₄	N ₂ O	CO ₂	CO ₂ e
0.00001732	0.000001732	0.9192	0.92

4.4 Emergency Generator Formula(s)

- Emergency Generator Emissions per Year

$$AE_{POL} = (NGEN * HP * OT * EF_{POL}) / 2000$$

AE_{POL}: Activity Emissions (TONs per Year)
 NGEN: Number of Emergency Generators
 HP: Emergency Generator's Horsepower (hp)
 OT: Average Operating Hours Per Year (hours)
 EF_{POL}: Emission Factor for Pollutant (lb/hp-hr)

5. Personnel

5.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Anne Arundel
Regulatory Area(s): Baltimore, MD; Anne Arundel County and Baltimore County, MD

- Activity Title: Personnel Staff etc

- Activity Description:

• Number of personnel – 879 personnel and 240 students for a total of 1,119

- Activity Start Date

Start Month: 9
Start Year: 2029

- Activity End Date

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Indefinite: Yes
End Month: N/A
End Year: N/A

- Activity Emissions of Criteria Pollutants:

Pollutant	Emissions Per Year (TONs)
VOC	1.670623
SO _x	0.019198
NO _x	0.793709
CO	19.654670

Pollutant	Emissions Per Year (TONs)
PM 10	0.142161
PM 2.5	0.053099
Pb	0.000000
NH ₃	0.266747

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Emissions Per Year (TONs)
CH ₄	0.097325
N ₂ O	0.037077

Pollutant	Emissions Per Year (TONs)
CO ₂	2270.674270
CO ₂ e	2283.228968

5.2 Personnel Assumptions

- Number of Personnel

Active Duty Personnel: 1119
Civilian Personnel: 0
Support Contractor Personnel: 0
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)

5.3 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

5.4 Personnel Emission Factor(s)

- On Road Vehicle Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.24625	0.00252	0.08836	3.05512	0.02106	0.00735	0.04603
LDGT	0.20650	0.00328	0.12876	2.80812	0.02256	0.00844	0.03848
HDGV	0.59818	0.00714	0.45184	7.05556	0.04719	0.02301	0.08273
LDDV	0.10813	0.00123	0.14135	6.06036	0.02238	0.00774	0.01681
LDDT	0.11151	0.00122	0.16141	2.60294	0.02118	0.00779	0.01592
HDDV	0.09843	0.00403	1.98941	1.45577	0.14471	0.06269	0.06757
MC	2.27011	0.00342	0.65843	11.35123	0.03130	0.02148	0.05516

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- On Road Vehicle Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO _{2e}
LDGV	0.01290	0.00457	297.82374	299.39716
LDGT	0.01365	0.00664	387.57726	389.71944
HDGV	0.04089	0.02233	844.02334	851.08495
LDDV	0.05647	0.00068	366.61430	368.37667
LDDT	0.03401	0.00101	363.55358	364.77481
HDDV	0.03117	0.16619	1202.19691	1247.10928
MC	0.10570	0.00295	394.43260	398.17271

5.5 Personnel Formula(s)

- Personnel Vehicle Miles Travel for Work Days per Year

$$VMT_p = NP * WD * AC$$

VMT_p: 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_{Total}: Total Vehicle Miles Travel (miles)
 VMT_{AD}: Active Duty Personnel Vehicle Miles Travel (miles)
 VMT_C: Civilian Personnel Vehicle Miles Travel (miles)
 VMT_{SC}: Support Contractor Personnel Vehicle Miles Travel (miles)
 VMT_{ANG}: Air National Guard Personnel Vehicle Miles Travel (miles)
 VMT_{AFRC}: Reserve Personnel Vehicle Miles Travel (miles)

- Vehicle Emissions per Year

$$V_{POL} = (VMT_{Total} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)
 VMT_{Total}: Total Vehicle Miles Travel (miles)
 0.002205: Conversion Factor grams to pounds
 EF_{POL}: Emission Factor for Pollutant (grams/mile)
 VM: Personnel On Road Vehicle Mixture (%)
 2000: Conversion Factor pounds to tons

6. Heating

6.1 General Information & Timeline Assumptions

- Add or Remove Activity from Baseline? Add

- Activity Location

County: Anne Arundel
 Regulatory Area(s): Baltimore, MD; Anne Arundel County and Baltimore County, MD

- Activity Title: HVAC

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- Activity Description:

Heating and cooling for facility

- Activity Start Date

Start Month: 9

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	0.031792
SO _x	0.003468
NO _x	0.578036
CO	0.485550

Pollutant	Emissions Per Year (TONs)
PM 10	0.043931
PM 2.5	0.043931
Pb	0.000000
NH ₃	0.000000

- Global Scale Activity Emissions of Greenhouse Gasses:

Pollutant	Emissions Per Year (TONs)
CH ₄	0.013064
N ₂ O	0.013064

Pollutant	Emissions Per Year (TONs)
CO ₂	693.752684
CO ₂ e	697.580321

6.2 Heating Assumptions

- Heating

Heating Calculation Type: Heat Energy Requirement Method

- Heat Energy Requirement Method

Area of floorspace to be heated (ft²): 112500

Type of fuel: Natural Gas

Type of boiler/furnace: Industrial (10 - 99 MMBtu/hr)

Heat Value (MMBtu/ft³): 0.00105

Energy Intensity (MMBtu/ft²): 0.1079

- Default Settings Used: Yes

- Boiler/Furnace Usage

Operating Time Per Year (hours): 900 (default)

6.3 Heating Emission Factor(s)

- Heating Criteria Pollutant Emission Factors (lb/1000000 scf)

VOC	SO _x	NO _x	CO	PM 10	PM 2.5	Pb	NH ₃
5.5	0.6	100	84	7.6	7.6		

- Heating Greenhouse Gasses Pollutant Emission Factors (lb/1000000 scf)

CH ₄	N ₂ O	CO ₂	CO ₂ e
2.26	2.26	120019	120143

6.4 Heating Formula(s)

- Heating Fuel Consumption ft³ per Year

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

$$FC_{HER} = HA * EI / HV / 1000000$$

FC_{HER} : Fuel Consumption for Heat Energy Requirement Method

HA: Area of floorspace to be heated (ft²)

EI: Energy Intensity Requirement (MMBtu/ft²)

HV: Heat Value (MMBTU/ft³)

1000000: Conversion Factor

- Heating Emissions per Year

$$HE_{POL} = FC * EF_{POL} / 2000$$

HE_{POL} : Heating Emission Emissions (TONs)

FC: Fuel Consumption

EF_{POL} : Emission Factor for Pollutant

2000: Conversion Factor pounds to tons

APPENDIX B – INTERAGENCY CONSULTATION DOCUMENTATION

APPENDIX B – INTERAGENCY CONSULTATION DOCUMENTATION

B-1 USFWS Correspondence

From: [Ramsey, Connie L CIV USARMY CENAB \(USA\)](#)
To: [Veas, Lindsey A.](#)
Cc: [Wells, Joseph](#)
Subject: FW: [EXTERNAL] Section 7 Consultation for the Proposed Department of Defense Cyber Crime Center on Fort Meade, Maryland
Date: Thursday, March 5, 2026 1:04:39 PM

[CAUTION] External Email. DO NOT click links or open attachments unless expected. Please use the "Phish Alert" button to report all suspicious emails.

For the administrative record:

From: CBFO Project Review, FW5 <cbfoprojectreview@fws.gov>
Sent: Thursday, March 5, 2026 12:15 PM
To: Ramsey, Connie L CIV USARMY CENAB (USA) <Connie.L.Ramsey@usace.army.mil>
Subject: [Non-DoD Source] Re: [EXTERNAL] Section 7 Consultation for the Proposed Department of Defense Cyber Crime Center on Fort Meade, Maryland

Good afternoon,

Thank you for sending this project for review. The Not Likely To Adversely Affect concurrence letter you received on March 4th, 2026 serves as our official correspondence on the project's potential effects to the federally endangered Northern long-eared bat. No further consultation is necessary unless the scope of the project changes.

For your official species list, two proposed species were on the list, tricolored bat (proposed as endangered) and monarch butterfly (proposed as threatened with a 4d rule).

The U.S. Fish and Wildlife Service has reviewed your project submittal form dated March 4th, 2026. The ESA does not require conferencing on species proposed to be listed unless the action is likely to jeopardize the continued existence of the species. Our assessment is that the proposed action is not likely to jeopardize the proposed endangered tricolored bat (*Perimyotis subflavus*) or the proposed threatened monarch butterfly (*Danaus plexippus*).

If possible, as a voluntary conservation measure for the tricolored bat, we recommend avoiding tree clearing from May 15 to July 31. No further consultation is required at this time. However, if either of these species are listed under the ESA before this project is completed, please contact the USFWS to reinitiate consultation for this project.

Trinadee

From: Ramsey, Connie L CIV USARMY CENAB (USA) <Connie.L.Ramsey@usace.army.mil>
Sent: Wednesday, March 4, 2026 2:23 PM
To: Deeley, Sabrina M <sabrina_deeley@fws.gov>
Cc: LaRouche, Genevieve <Genevieve_LaRouche@fws.gov>; Veas, Lindsey A. <lveas@dewberry.com>; julie.m.adkins7.civ@army.mil <julie.m.adkins7.civ@army.mil>; CBFO Project Review, FW5 <cbfoprojectreview@fws.gov>; Etherton, Caroline G CIV (USA) <Caroline.Etherton@usace.army.mil>
Subject: [EXTERNAL] Section 7 Consultation for the Proposed Department of Defense Cyber Crime Center on Fort Meade, Maryland

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good afternoon!

On behalf of U.S. Army Garrison Fort George G. Meade, Maryland, we are submitting the attached Species List dated March 3, 2026, generated using the Service's Information for Planning and Consultation (IPaC) application [**Project Code 2026-0029300**]. The proposed Department of Defense Cyber Crime Center (DC3) would consist of 262,000 gross square feet (GSF) of administrative space within a 6-story structure located at the southwest corner of Ernie Pyle and 9th Streets in the eastern portions of the installation. An adjoining 6-story parking garage would consist of 294,150 GSF for 900 parking spaces. Associated road improvements would include modifications to adjacent intersections, including signaling and the addition of turn lanes, and would be internal to FMMD. The proposed action is also being evaluated through an Environmental Assessment pursuant to the National Environmental Policy Act. The Draft EA will be released for the 30-day public comment period later this spring.

Although the attached March 4, 2026 concurrence letter indicates a *May Affect* determination for the proposed endangered tricolored bat (*Perimyotis subflavus*), we are requesting concurrence from the U.S. Fish and Wildlife Service that the proposed DC3 facility is not likely to adversely affect (NLAA) the endangered Northern long-eared bat (NLEB; *Myotis spetntrionalis*) and the tricolored bat, and would have no effect on the proposed threatened Monarch butterfly (*Danaus plexippus*).

The time of year restriction (TOYR) would be placed on tree removal during the summer occupancy season, Apr 1 – Sept 30 (Maryland), in order to minimize potential adverse effects to bat species. Further, the forested areas to be cleared consist predominantly of a dense monoculture of Bradford pear (see attached FSD report), which is not optimal roosting habitat even though the potential for species to be present cannot be ruled out.

Thank you for your time and consideration. Please don't hesitate to reach out with any questions or concerns.

v/r

Connie Ramsey, Section Chief
Installation Support Branch
Planning Division
Baltimore District USACE
2 Hopkins Plaza
Baltimore, MD 21201
Office: 410.962.7783



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To:
Project code: 2026-0029300
Project Name: DC3 Construction

03/04/2026 19:06:41 UTC

Federal Nexus: yes
Federal Action Agency (if applicable): Army

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'DC3 Construction'

Dear Connie Ramsey:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on March 04, 2026, for 'DC3 Construction' (here forward, Project). This project has been assigned Project Code 2026-0029300 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (DKey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid. Note that conservation measures for northern long-eared bat and tricolored bat may differ. If both bat species are present in the action area and the key suggests more conservative measures for one of the species for your Project, the Project may need to apply the most conservative measures in order to avoid adverse effects. If unsure which conservation measures should be applied, please contact the appropriate Ecological Services Field Office.***

Determination for the Northern Long-Eared Bat and Tricolored Bat

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA
Tricolored Bat (<i>Perimyotis subflavus</i>)	Proposed Endangered	May affect

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is complete for northern long-eared bat and/or tricolored bat and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat or tricolored bat in a manner or to an extent not previously considered; or,
- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat or tricolored bat that was not considered when completing the determination key.

15-Day Review Period

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for the northern long-eared bat and/or tricolored bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat and Tricolored Bat DKey.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

You may coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the Chesapeake Bay Ecological Services Field Office and reference Project Code 2026-0029300 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

DC3 Construction

2. Description

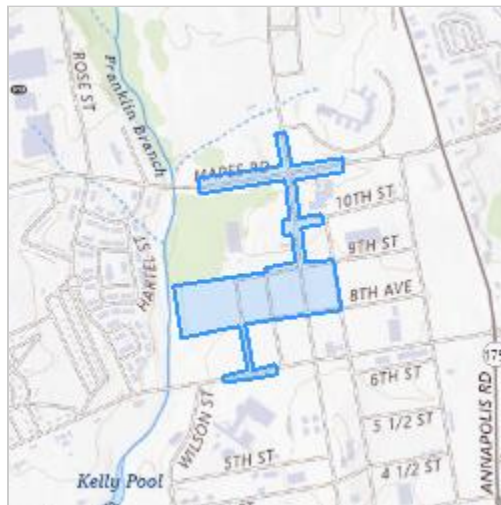
The following description was provided for the project 'DC3 Construction':

The DC3 Facility would consist of approximately 262,000 gross square feet (GSF) of space within a 6-story structure. Space within the facility would be programmed to accommodate 879 personnel and 240 students.

The parking garage would consist of approximately 294,150 GSF for 900 parking spaces within 6 stories.

Associated FGGM internal road improvements include modifications to 9th, Y, and Ernie Pyle Streets. 9th Street would serve as the primary access to the facility and B2600. Y Street would provide access to and from the parking garage and the utility yard. Access to the delivery dock and services such as trash would come from Ernie Pyle Street and would be designed in accordance with the U.S. Army Garrison Directorate of Public Works.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.102138800000006,-76.72714883933712,14z>



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for a least one species covered by this determination key.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Note for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer ‘yes’ to this question.

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

Automatically answered

No

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

12. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

13. Will the action result in effects to a culvert or tunnel at any time of year?

No

14. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

15. Does the action include the intentional exclusion of bats from a building or building-like structure? **Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

16. Does the action involve removal, modification, or maintenance of a human-made building-like structure (barn, house, or other building) **known or suspected to contain roosting bats?**

No

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

Yes

20. Will the new travel lanes lie between any two patches of contiguous forest that are each greater than or equal to 10 acres in extent and separated by less than 1,000 feet? Bats may cross a road by flying between forest patches that are up to 1,000 feet apart.

Note: "Contiguous forest" of 10 acres or more may include areas where multiple forest patches are separated by less than 1,000 feet of non-forested area if the forested patches, added together, comprise at least 10 acres.

No

21. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

22. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

23. Will the action include drilling or blasting?

No

24. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use at night)?

No

25. Will the proposed action involve the use of herbicides or pesticides (e.g., fungicides, insecticides, or rodenticides)?

No

26. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

27. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

28. Will the action cause an increase in the extent of suitable forested habitat exposed to artificial lighting?

Yes

29. Will the action use only downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting) when installing new or replacing existing permanent lights?

Or for those transportation agencies using the Backlight, Uplight, Glare (BUG) system developed by the Illuminating Engineering Society, will all three ratings (backlight, uplight, and glare) be as close to zero as is possible, with a priority of "uplight" of 0?

Yes

30. Will the action direct any temporary lighting away from suitable northern long-eared bat or tricolored bat roosting habitat when bats may be present?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

31. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

Yes

32. Is the project related to the production of coal, including projects that support the mining of coal, as well as the production and/or distribution of energy produced from coal?

No

33. Will the proposed action occur exclusively in an already established and currently maintained utility right-of-way?

No

34. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property.

No

35. Does the project intersect with the 0- 9.9% forest density category?

Automatically answered

No

36. Does the project intersect with the 10.0- 19.9% forest density category map?

Automatically answered

No

37. Does the project intersect with the 20.0- 29.9% forest density category map?

Automatically answered

Yes

38. Does the project intersect with the 30.0- 100% forest density category map?

Automatically answered

No

39. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 40 acres in total extent?

No

40. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

41. Does the action area intersect the northern long-eared bat species list area?

Automatically answered

Yes

42. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known NLEB hibernacula or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

43. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

44. [Semantic] Is the action area located within 150 feet of a documented northern long-eared bat roost site?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency. Have you contacted the appropriate agency to determine if your action is within 150 feet of any documented northern long-eared bat roosts?

Note: A document with links to Natural Heritage Inventory databases and other state-specific sources of information on the locations of northern long-eared bat roosts is available here. Location information for northern long-eared bat roosts is generally kept in state natural heritage inventory databases – the availability of this data varies by state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited.

Automatically answered

No

45. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
If unsure, answer "Yes."

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

46. Are any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming suitable for northern long-eared bat roosting (i.e., live trees and/or snags ≥ 3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities)?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

47. Will any tree cutting/trimming or other knocking or bringing down of trees occur during the **Summer Occupancy season** for northern long-eared bats in the action area? **Note:** Bat activity periods for your state can be found in Appendix 2 of the Service's [Northern long-eared Bat and Tricolored Bat Voluntary Environmental Review Process for Development Projects](#).

No

48. Does the action area intersect the tricolored bat species list area?

Automatically answered

Yes

49. Is the action area located within 0.5-mile of radius of an entrance/opening to any known tricolored bat hibernacula or winter roost?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

Automatically answered

No

50. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

51. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?
(If unsure, answer ""Yes."")

Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the [Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#).

Yes

52. Do you have any documents that you want to include with this submission?

Yes

SUBMITTED DOCUMENTS

- *DRAFT_Integrated Natural Resources Management Plan Update 2025-2030.pdf* <https://ipac.ecosphere.fws.gov/project/EIFUYSZG7RBC3J3BV56CXF552E/projectDocuments/177652601>
- *2024-10-31 FGGM bat survey final report.pdf* <https://ipac.ecosphere.fws.gov/project/EIFUYSZG7RBC3J3BV56CXF552E/projectDocuments/175477114>

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

8.7

IPAC USER CONTACT INFORMATION

Agency: Army Corps of Engineers
Name: Connie Ramsey
Address: 2 Hopkins Plaza
City: Baltimore
State: MD
Zip: 21201
Email: connie.l.ramsey@usace.army.mil
Phone: 4109627783

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army
Name: Julie Adkins
Email: julie.m.adkins7.civ@army.mil
Phone: 3016779372

APPENDIX B – INTERAGENCY CONSULTATION DOCUMENTATION

B-2. SHPO Correspondence

From: [Maryland Historical Trust](#)
To: [Ramsey, Connie L CIV.USARMY.CENAB \(USA\)](#)
Subject: [Non-DoD Source] MHT e106 project submittal
Date: Tuesday, March 24, 2026 8:39:18 AM

The Maryland Historical Trust MHT e106 system received the following project review submittal:

Date Submitted: March 24, 2026
Project Name: Proposed Defense Cyber Crimes Center (DC3) Facility
Agency: Corps of Engineers

Thank you for your MHT e106 submittal which is pending acceptance into the MHT e106 system. Upon acceptance, you will receive an email with your MHT project log number. You may then use your online Compliance Log Dashboard to track project review status.



Maryland Historical Trust
Project Review and Compliance
100 Community Place
Crownsville, MD 21032
mht.section106@maryland.gov

[MHT.Maryland.gov](#)
[Planning.Maryland.gov](#)

From: [Ramsey, Connie L CIV USARMY CENAB \(USA\)](#)
To: [Bergevin, Jesse](#)
Cc: gerald.w.glodek.civ@army.mil; oneida_thpo@oneidanation.org
Subject: Comments on a Proposed Defense Cyber Crimes Center (DC3) Facility on Fort Meade, Maryland
Attachments: [Oneida Nation Tribal Letter DC3 20MAR26 WAO Signed.pdf](#)

Good morning,

The U.S. Army Corps of Engineers, Baltimore District, Planning Division is supporting the National Environmental Policy Act (NEPA) documentation of the Proposed Defense Cyber Crimes Center (DC3) Project on Fort Meade, Maryland. On behalf of Fort Meade, we are writing to respectfully request any information you would like to share that might be relevant to potential impacts and that should be evaluated in the Draft Environmental Assessment (EA).

We are deeply committed to ensuring that your voice is heard, and your issues and concerns are addressed promptly. We also understand the need to protect sacred and traditional knowledge and will ensure the utmost confidentiality and protection of that information. We appreciate your time and consideration.

Please direct any comments or questions you have to the undersigned below, or to: Jerald Glodek, Cultural Resource Manager, Fort George G. Meade, Jerald.w.glodek.civ@army.mil, 301-677-9179.

Thank you,

Connie Ramsey, Section Chief
Installation Support Branch
Planning Division
Baltimore District USACE
2 Hopkins Plaza
Baltimore, MD 21201
Office: 410.962.7783



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION COMMAND HEADQUARTERS UNITED
STATES ARMY GARRISON 4551 LLEWELLYN AVENUE, SUITE 5000
FORT GEORGE G. MEADE, MARYLAND 20755-5115

March 9, 2026

Directorate of Public Works

Maryland Historical Trust
Attn: Ms. Becky Roman
100 Community Place, 3rd Floor
Crownsville Maryland, 21032-2023
becky.roman@maryland.gov

Dear Ms. Roman,

U.S. Army Garrison, Fort George G. Meade (Fort Meade) is writing your office to initiate consultation in accordance with Section 106 of the National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. § 470f), as amended, and its implementing regulations, at 36 C.F.R. Part 800, for a new proposed undertaking on Fort Meade, Maryland, on the southwest corner of Ernie Pyle and 9th Streets (Enclosure 1). The proposed undertaking would include construction of a new administrative building, parking garage, and associated infrastructure and roadway improvements. A complete list of invited consulting parties can be found in Enclosure 2.

Project Background and Proposed Undertaking: To facilitate performance of the Department of Defense Cyber Crime Center (DC3), the U.S. Army is considering the consolidation of employees from several leased locations to a new facility at Fort Meade. The undertaking includes the construction of a new administrative facility, parking deck, and associated infrastructure and road improvements. The DC3 facility and parking deck are planned as 6-story structures. Additional details are included in the enclosed project materials (Enclosure 3).

Area of Potential Effect (APE): The APE (Enclosure 1) is defined as the limits of disturbance (LOD) for the construction activities, and those areas from which the construction activities and proposed new building will be visible. The proposed action area consists of 9.9 acres wholly within Fort Meade, including:

- Vacant parcel for the DC3 Facility, parking garage, and associated infrastructure (access roads, pedestrian circulation, stormwater management, etc.).
- Vacant lot for temporary staging areas; and,
- Interior roadways.

Identification of Historic Properties: Fort Meade updated the installation's Integrated Cultural Resources Management Plan (ICRMP) in 2025. The ICRMP provides guidelines and procedures for cultural resources management at Fort Meade.

-2-

Fort Meade has five historic properties determined to be eligible for listing in the NRHP and which are subject to the regulatory requirements of the NHPA. The historic architectural properties are the Fort Meade Historic District, three culverts built by German prisoners of war during World War II, and the water treatment plant (Building 8688). The APE falls outside of the boundaries of the National Register of Historic Places (NRHP) eligible Fort Meade Historic District. The new building and parking garage will not be visible from the historic district, as existing residential structures and a forested area will block views of the new construction. The nearest culvert is where Llewellyn Avenue crosses over Franklin Branch Creek. There would be limited visibility from the culvert to the facility as forested areas would block a direct view. Roadwork at Llewellyn Avenue and Y Street would be visible from the culvert. There are no known historic properties within or adjacent to the APE.

In 1995, the APE was surveyed as part of a Phase I installation-wide archaeological survey by the U.S. Army Corps of Engineers. That survey did not identify any archaeological sites within the APE and noted a high level of previous ground disturbance within this area of the installation. Historically, this area was used as a baseball field and then as a staging area during nearby construction. Two small surface lots are present within the LOD. Therefore, Fort Meade has concluded there is low potential for significant, NRHP eligible archaeological sites within the LOD.

National Environmental Policy Act (NEPA): In accordance with the National Environmental Policy Act of 1969 (42 United States Code Section 4321 et seq.), Fort Meade is also preparing an Environmental Assessment (EA) for the Proposed Action. The EA is currently in the draft phase. The Draft Finding of No Significant Impacts and EA are anticipated to be available for public review in April 2026, and the project designs are anticipated to be finalized in 2027.

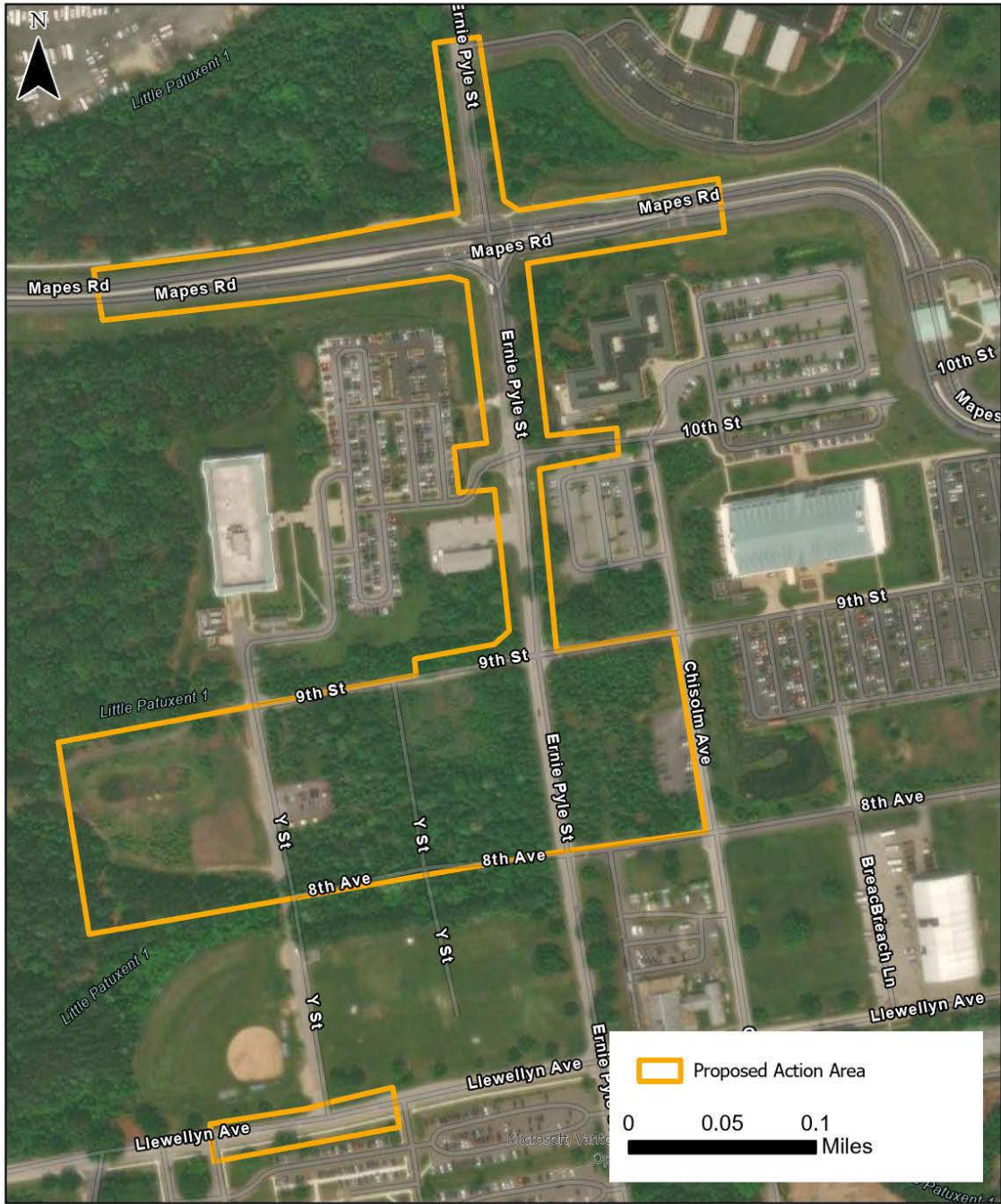
Fort Meade has determined that the proposed undertaking will have no adverse effect on historic properties and is seeking your concurrence with this effect determination. We appreciate your review of the proposed undertaking.

If you have questions or concerns, or require further information, please feel free to contact our Cultural Resource Manager, Jerald Glodeck, at 4216 Roberts Avenue, Fort Meade, Maryland, 20755, by phone at 301-677-9179 or by email: Jerald.W.Glodek.civ@army.mil.

Sincerely,

George B. Knight, P.G.
Chief, Environmental Division

Enclosures



Enclosure 2

List of Invited Consulting Parties

U.S. Fish and Wildlife Service

Chesapeake Bay Ecological Services Field Office
Patuxent Research Refuge, National Wildlife Visitor Center

U.S. Department of Agriculture

U.S. Environmental Protection Agency

Office of Communities, Tribes, & Environmental Assessment

Maryland Department of Transportation

Office of Planning and Engineering

Maryland Department of Natural Resources

Wildlife and Heritage Service

Maryland Department of the Environment

Maryland Department of Housing and Community Development

Maryland Historical Trust, Division of Historical and Cultural Programs

Maryland State Clearinghouse

Maryland Office of Planning

Tribal Historic Preservation Officers or Representatives of the following:

Absentee Shawnee Tribe of Indians of Oklahoma

Cayuga Nation

Delaware Nation

Eastern Shawnee Tribe of Oklahoma

Oneida Tribe of Indians of Wisconsin

Oneida Indian Nation

Onondaga Indian Nation

Pawnee Nation of Oklahoma

Saint Regis Mohawk Tribe

Seneca Nation of Indians

Seneca-Cayuga Tribe of Oklahoma

Stockbridge Munsee Community of Wisconsin

Tonawanda Band of Seneca

Tuscarora Nation

Existing Conditions:

The proposed action area for the Department of Defense Cyber Crime Center (DC3) consists of 9.9 acres wholly within Fort Meade (Enclosure 1). It is bound by 9th Street on the north, Ernie Pyle Street on the east, and 6th Avenue on the south. Additional road sections are included in the proposed action area to account for updates to the roadway at the intersections discussed below. The western boundary extends into a previously developed area that is now vacant. The site is generally flat, with a slight slope from north to south. The proposed action area is in an area of the campus that consists of administrative buildings.

The DC3 Facility, parking deck, and associated infrastructure would be on a vacant parcel to the west of Ernie Pyle Street. There are no specific architectural resources, archaeological sites, cemeteries, or resources of traditional, religious, or cultural significance to Native American tribes identified within the proposed project area.

Proposed Project Summary:

The undertaking includes the construction of a new DC3 facility, parking deck, and associated infrastructures and road improvements. The DC3 Facility would consist of approximately 262,000 gross square feet (GSF) of space within a 6-story structure. Space within the facility would be programmed to accommodate 879 personnel and 240 students. The parking deck would consist of approximately 294,150 GSF for 900 parking spaces within 6 stories.

Associated Fort Meade internal road improvements include modifications, such as signalization and the addition of turn lanes, to the following intersections:

- Mapes Road and Ernie Pyle Street
- Ernie Pyle and 10th Street
- Ernie Pyle Street and 9th Street
- Y Street and Llewellyn Avenue

9th Street would serve as the primary access to the facility. Y Street would provide access to and from the parking deck and the utility yard. Access to the delivery dock and services such as trash would come from Ernie Pyle Street and would be designed in accordance with the U.S. Army Garrison Directorate of Public Works.

The DC3 facility, parking deck, and stormwater management would be constructed east of Ernie Pyle Street between 8th Avenue and 9th Street. The block bordered by Chisolm Avenue, 9th Street, Ernie Pyle Street, and 8th Street would be used as a staging area during the construction phase of the project. Post construction, it would revert to the existing open space with a small parking lot off of Chisolm Avenue. The streets and intersections included in the Proposed Action Area would be updated to accommodate increased employee traffic.

Design will be finalized after the National Environmental Policy Act (NEPA) analysis is completed but will include all elements described in the first paragraph of this section. Figure 1 demonstrates a potential layout for the DC3 facility, parking deck, and

stormwater management facilities. Fort Meade anticipates publishing a Draft Environmental Assessment in spring 2026. Construction is anticipated to begin in 2027.



Figure 1. Potential Design

Consultation and Potential Effects to Historic Properties

Fort Meade updated its Integrated Cultural Resources Management Plan (ICRMP) in 2025.

Archaeological Resources and Cemeteries

In 1995, the area of potential effect (APE) was surveyed as part of a Phase I installation wide archaeological survey by The U.S. Army Corps of Engineers. That survey did not identify any archaeological sites within the APE and noted a high level of previous ground disturbance within this area of the installation. Historically, this area was used as a baseball field and then as a staging area during nearby construction. Two small surface lots are present within the proposed project area. Therefore, Fort Meade has concluded there is low potential for significant NRHP eligible archaeological sites within the proposed project area.

Architectural Resources

Historic properties deemed eligible for listing in the NRHP have been previously identified within the boundaries of Fort Meade. These include three culverts built by German prisoners of war during World War II, the water treatment plant, and the Fort

Meade Historic District. The nearest culvert to the site is at the point Llewellyn Road crosses over Franklin Branch Creek, approximately 0.13 miles from the proposed facility. The water treatment plant is approximately 1.44 miles from the proposed facility. The Fort Meade Historic District, approximately 0.21 miles west of the DC3 parking deck site, is a mix of barracks and administrative buildings in the central portion of Fort Meade, 13 of which are identified as contributing buildings. The historic district is separated from the parking deck site by approximately 515 feet of forested land and residences.

Remaining buildings were evaluated and determined not eligible by Fort Meade, with concurrence by the Maryland Historical Trust in 2019. None of the historic properties fall within or adjacent to the proposed project area, shown in Figure 2. Although outlined in Medusa, the empty lot intended for staging is not eligible for listing in the NRHP.

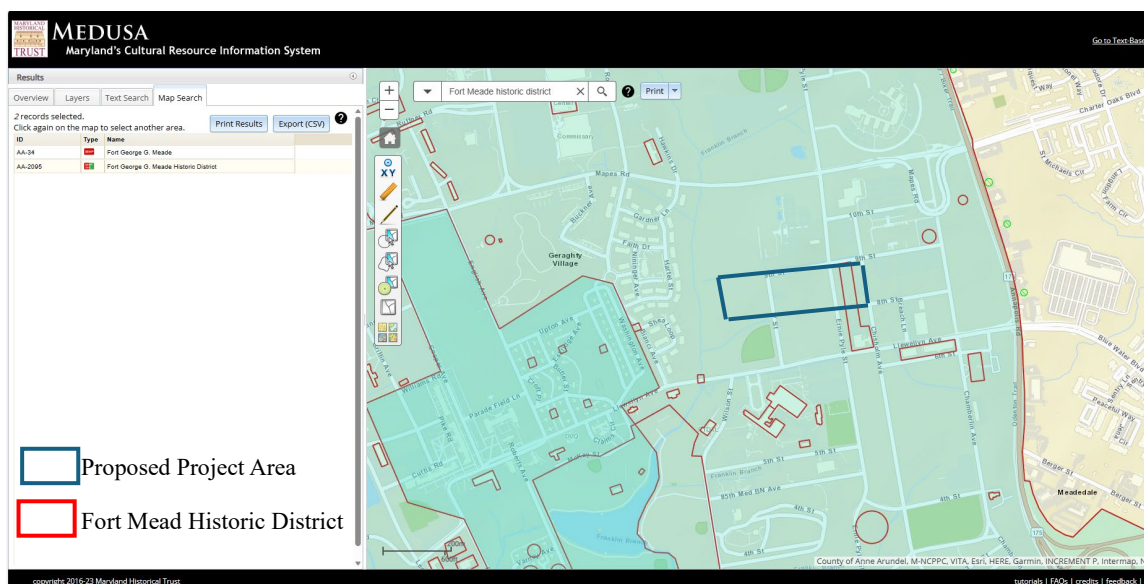


Figure 2. Medusa Showing Fort Meade Resources

Viewshed

The proposed facility, parking deck, and associated road improvements may be visible from resources located within Fort Meade, specifically the Fort Meade Historic District and its contributing buildings. The Fort Meade Historic District qualified for listing under Criteria A and C. The buildings are a full range of functions and have the distinctive characteristics of planning and design associated with military post construction in the 1920s and 1930s. The historic district is separated from the parking deck site by approximately 515 feet of forested land and residences. The elevation profile shown in Figure 3, indicates the historic district is on higher ground. The forested floodplain of Midway Branch contains lower elevations and separates the historic district from the project area further to the east, where the ground slopes back upward to the anticipated site for the parking deck. Should the parking deck or DC3 facility be visible from the

historic district, it is anticipated that only the tops of the 6-story buildings would be visible.

External to Fort Meade, Annapolis Road is approximately 0.32 miles from the DC3 facility site and has an elevation of 166 feet, as shown in Figure 4. The ground slopes downward, placing the DC3 facility and parking deck at a ground elevation of 150 feet. With the elevation difference and the tree line along Annapolis Road serving as a visual screen, it is anticipated that only the top of the 6-story buildings could be visible. There are no cultural or historic resources within the viewshed external to Fort Meade.

Effects Conclusion

Based on the distance of historic resources from the proposed project area and anticipated lack of visibility of the new facility from these resources, Fort Meade concludes that the proposed construction of the DC3 facility, parking deck, and associated roadwork at Fort Meade, Maryland, would have no adverse effect on the viewshed for adjacent historic resources.

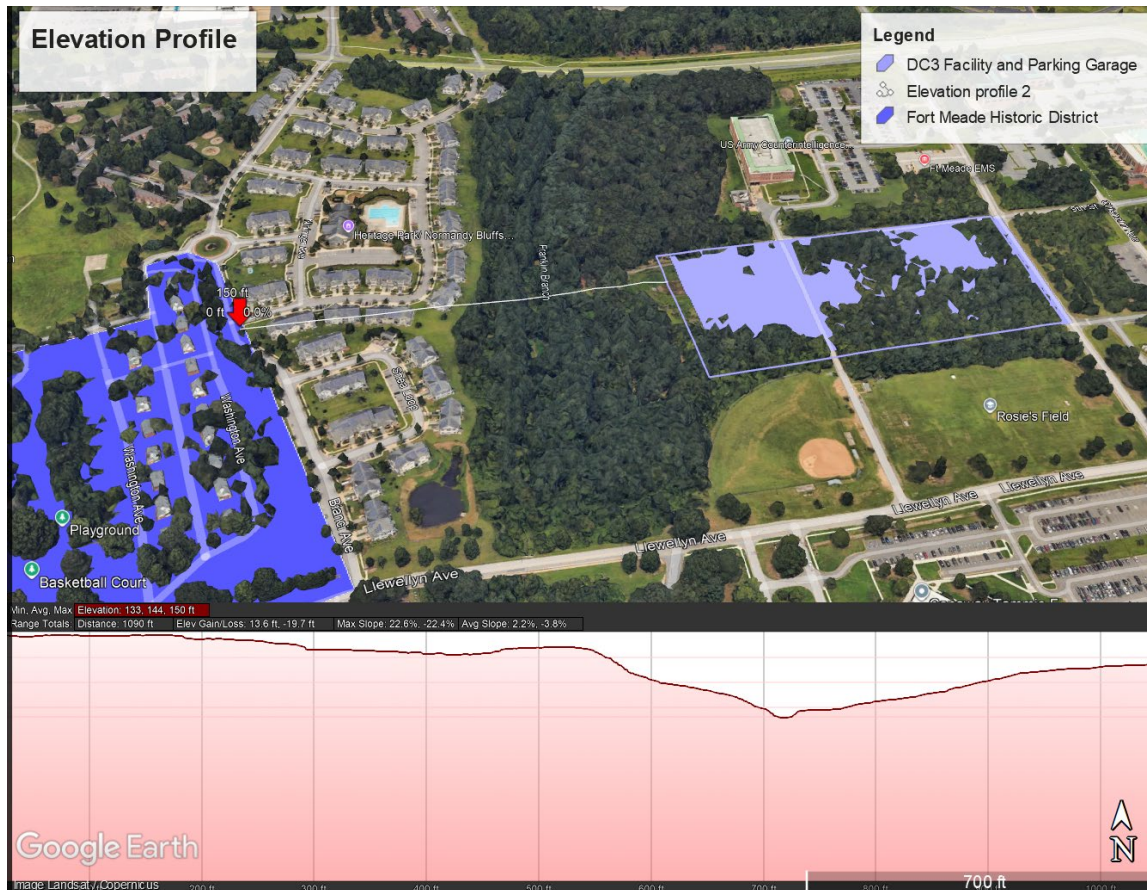


Figure 3. Elevation Profile from Fort Meade Historic District

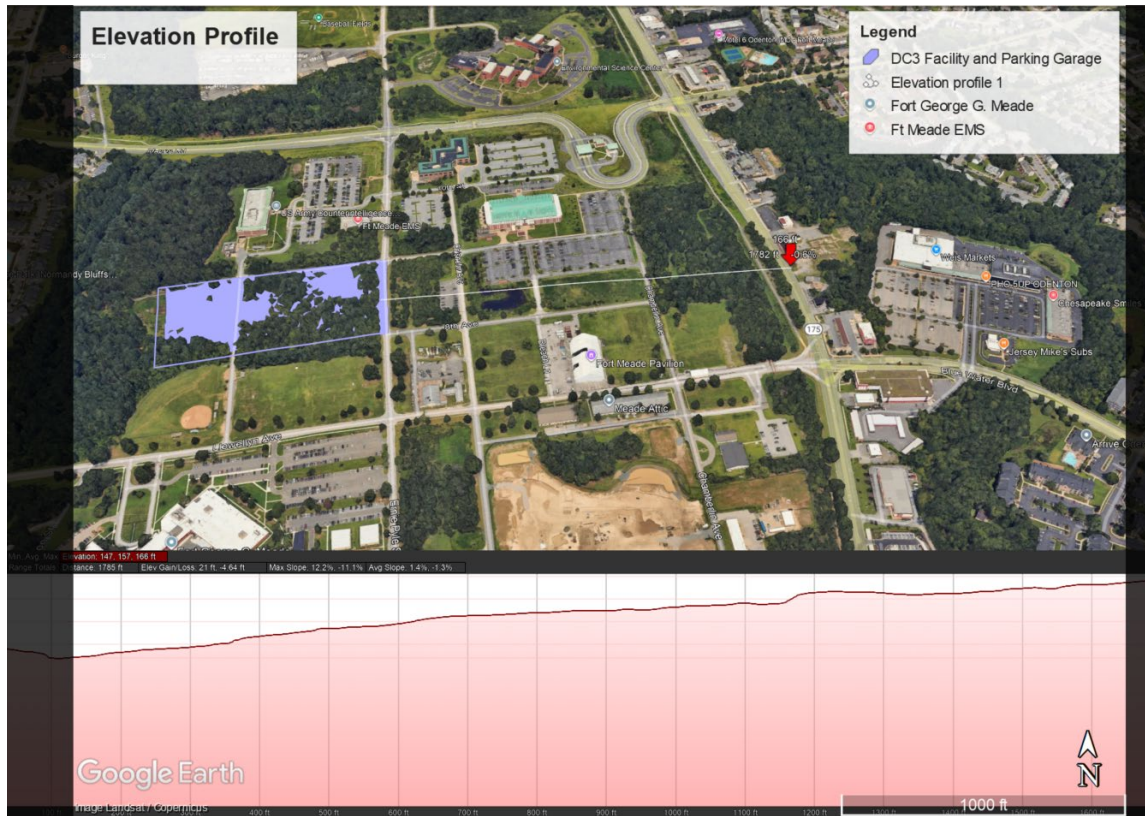


Figure 4. Elevation Profile from Annapolis Road

APPENDIX B – INTERAGENCY CONSULTATION DOCUMENTATION

B-3. Example Tribal Coordination Letter



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION COMMAND HEADQUARTERS UNITED
STATES ARMY GARRISON 4551 LLEWELLYN AVENUE, SUITE 5000
FORT GEORGE G. MEADE, MARYLAND 20755-5115

March 9, 2026

Directorate of Public Works

Mr. Devon Frazier-Smith
Tribal Historic Preservation Officer
Absentee Shawnee Tribe of Indians of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801

Dear Mr. Frazier-Smith,

The Army recognizes its responsibilities to maintain Government-to-Government relationship with all tribes affected by activities on Army Installations and our federal trust responsibility for those lands. In the interest of early and frequent communication under Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, pursuant to 36 Code of Federal Regulations (CFR) Part 800.3(f)(2), and as part of the Department of Defense's policy for Government-to-Government consultation with Native American tribes, I am writing to inform you that the Army is preparing an Environmental Assessment (EA) for a new undertaking on Fort Meade, Maryland (FMMD), to provide a consolidated, secure facility to house the Department of Defense (DoD) Cyber Crime Center (DC3). This correspondence would serve to initiate consultation under Section 106 of the NHPA.

The Army is preparing the EA under the National Environmental Policy Act of 1969 (NEPA) (42 United States Code Section 4321 et seq.), DoD's NEPA Implementing Procedures (2025), and the Army's NEPA implementing procedures (2025).

The purpose of this EA is to inform decision-makers, tribes, stakeholders, and the public of the potential environmental consequences and any associated mitigations, as applicable. Affected Native American tribes and interested persons, organizations, and agencies will have multiple opportunities to provide input on the proposed project. The following resources are evaluated in this EA: air quality; hazardous and toxic materials; noise; geology, soils, and topography; water resources and water quality; biological resources; energy and utilities; cultural resources; visual aesthetics; transportation and traffic; and socioeconomics and protection of children.

At this stage in the analysis, the geographic boundaries of the Area of Potential Effects (APE) for this undertaking are conservatively estimated to be the project boundaries depicted in Enclosure 1 and those areas from which the construction would be visible. The Army anticipates the APE would include areas where the construction and operation of the facility may directly or indirectly cause changes in the character or use of historic properties.

As we are beginning the analysis of the above-referenced resource areas, I would like to invite your input on the anticipated APE for this undertaking. As discussed previously, more information about specific project plans will be available for review as they are developed to better assist in evaluating the impacts the proposed project may create. I understand that information that you provide on tribal religious or cultural items will be offered voluntarily in the spirit of assisting with our decision making for the project. Based on the available information regarding the proposed action, we welcome any information you would like to share that might be relevant to potential impacts and should be evaluated in the EA.

Any information pertaining to whether this action has the potential to affect tribal trust, subsistence, and/or cultural resources or if tribal rights and/or any protected resources may be affected by this proposed action would be greatly appreciated. Any general comments you may have on the proposed action and proposed alternatives, including discussing possible actions that would benefit your tribe, would also be welcome. I would be happy to answer any questions you may have about the project at this stage. Feel free to connect with me about the project via the contact information listed below. All information provided will be treated with the utmost confidentiality and in accordance with your wishes of how and whether this information can be used. I am also interested in locating any official tribal histories or historical reference materials that are more accurate and/or preferred by your tribe.

Determinations on the Army's process to identify historic properties within the APE and evaluation and effects determinations made in accordance with Section 106 of the NHPA will be made in consultation with all affected Native American tribes, as well as the State Historic Preservation Offices, and the interested public.

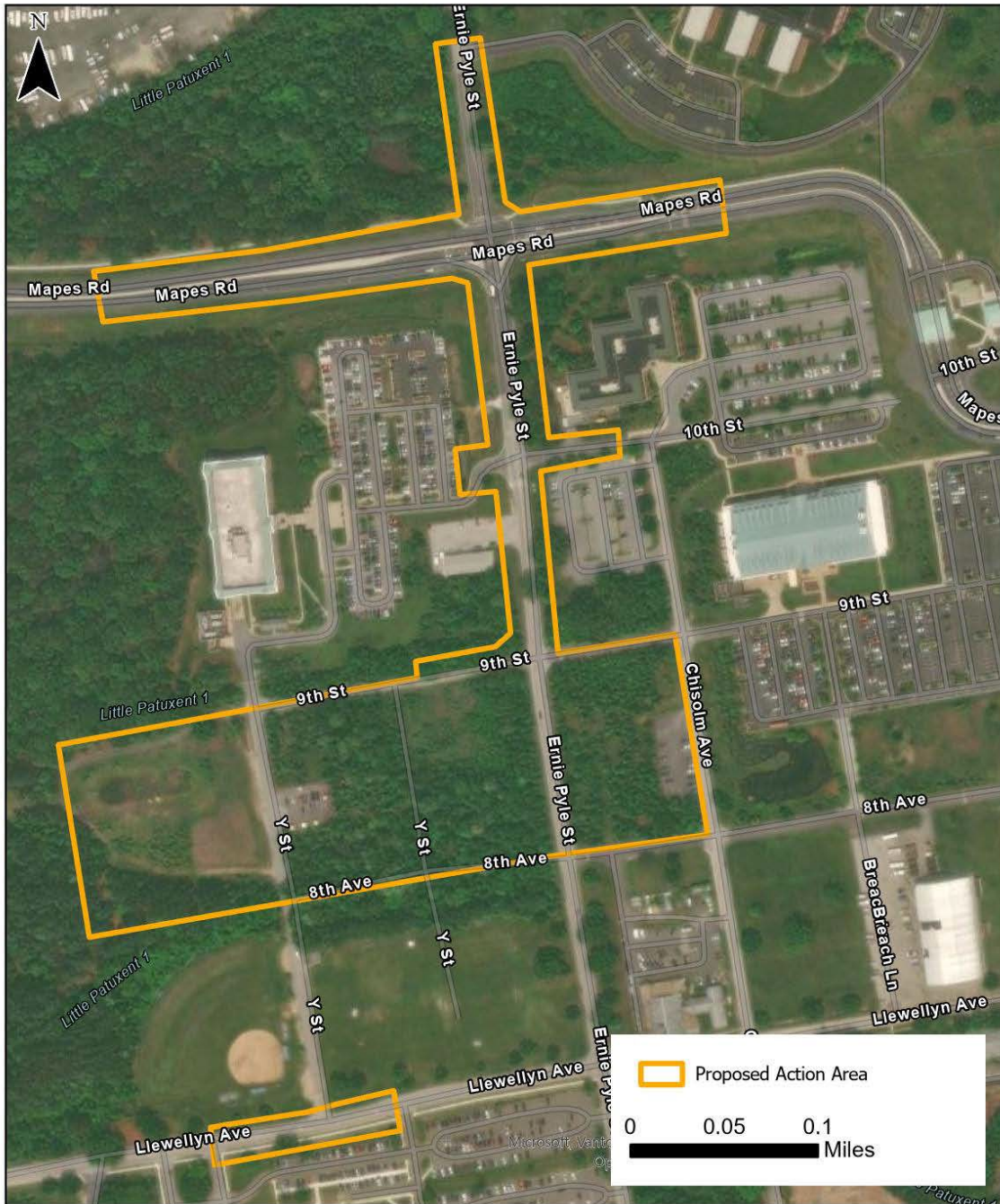
If you have questions or concerns, or require further information, please feel free to contact our Cultural Resource Manager, Jerald Glodek, at 4216 Roberts Avenue, Fort Meade, Maryland, 20755, by phone at 301-677-9179 or by email: Jerald.W.Glodek.civ@army.mil.

Sincerely,

George B. Knight
Chief, Environmental Division

Enclosure

Enclosure 1 - Proposed Action Location on Fort Meade



APPENDIX C – PUBLIC INVOLVEMENT DOCUMENTATION