

Appendix H

Air Quality Assessment



Dutchess County

Hudson Valley Regional Airport

Wappingers Falls, New York

Appendix H - Air Quality
Assessment for Runway Safety
Improvements

Prepared by:

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Section 1 – Background

1.1 Introduction

Dutchess County (County) is preparing an Environmental Assessment to support bringing Runway 6-24 runway safety areas into compliance with federal design standards and regulations at Hudson Valley Regional Airport (POU). The purpose for this project is to complete improvements needed to bring Runway 6-24 into compliance with federal design standards and regulations. Throughout the planning process, alternative plans were analyzed based on a multitude of environmental criteria. The evaluation of development alternatives culminated in the selection of a preferred alternative (Proposed Project) that will be further analyzed under this report to determine its potential impacts to air quality.

The purpose of this document is to quantify criteria pollutant and greenhouse gas emissions associated with the construction and operation of the Proposed Project and to assess and propose mitigation measures for potential impacts relating to air quality, as necessary. This document summarizes the results as well as describes the technical approach, methodology, and data sources developed in support of the criteria pollutant and greenhouse gas emissions inventory for POU.

1.2 Project Description

The Proposed Project takes place entirely within airport property and includes the following:

- Displace Runway 6 threshold 193 feet
- Reconfigure and re-cable medium intensity runway lights with runway end identifier lights (MALSR) and associated grading (includes construction of at least three new light towers, removal of at least three light towers, height modification of six light towers). It is possible that all existing light towers and foundations must be replaced within the MALSR limits of disturbance depending on the structural effects of light tower height adjustments.
- Relocation of approximately 200 feet of existing gravel access road adjacent to light tower located 1,000 feet from the displaced threshold.
- Relocate instrument landing system (ILS) glideslope antenna, equipment shelter, and access road and associated grading
- Relocate precision approach path indicator (PAPI) lights on Runway 6 end
- Fill, re-grade, and remove uneven paved areas on the Runway 24 end
- Re-marking and re-lighting on Runway 6 end



- Redesign and publication of new approach procedures to the Runway 6 end (1-mile visibility minimum)
- Implement declared distances

The Proposed Project will not increase operational emissions. However, there would be a temporary increase in emissions during construction due to the use of various construction equipment and travel by contractors. According to FAA's *Aviation Emissions and Air Quality Handbook* (Version 3, Update 1, January 2015), if the proposed project will cause a reasonably foreseeable emission increase, an emissions inventory must be prepared.

1.3 Regulatory Setting

In accordance with FAA requirements, air quality requires consideration under both the Clean Air Act (CAA) and the National Environmental Policy Act (NEPA).

1.3.1 Clean Air Act

Under the Federal Clean Air Act (CAA) (42 U.S.C. § 7401-7671q), the USEPA has established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), ozone, and lead. Under the CAA, if a proposed action is subject to Federal funding or approval, it must conform to the goals set forth for eliminating or reducing the number of violations of the NAAQS in the state or region in which the action is to take place. An area that violates a national primary or secondary NAAQS for one or more of the USEPA designated criteria pollutants is referred to as 'nonattainment'. According to the CAA, the NAAQS are applicable to all areas of the United States and associated territories. Each nonattainment area is required to have an applicable State Implementation Plan (SIP) that prescribes mitigation measures and timelines necessary to bring ambient concentrations of criteria pollutants below the NAAQS. When a nonattainment area successfully reduces criteria pollutant concentrations below the NAAQS, EPA re-designates the area a 'maintenance area'. For actions planned to occur in a nonattainment or maintenance area, the proposed impacts to air quality must conform to the conditions of the applicable SIP, also known as *General Conformity*.

1.3.2 Conformity

The General Conformity Rule ensures that federal actions comply with the NAAQS. In order to meet the CAA requirement, a federal agency must demonstrate that every action that it undertakes, approves, permits or supports will conform to the appropriate state implementation plan (SIP). The USEPA promulgated the initial conformity regulations in 1993¹ to assist

¹ 40 CFR Part 51 and Part 93



federal agencies in complying with the SIP by specifying rules for two categories of federal actions: transportation actions and general actions. The two rules have separate and distinct applicability and evaluation requirements. Transportation conformity applies to highway and transit projects, while general conformity regulations apply to other federal actions that are not transportation projects, such as federal funding for maintenance and repair and new construction projects at existing airports.

The General Conformity Rule, published under 40 CFR Part 93, applies only to an action that is federally-funded or federally-approved and only for pollutants causing the area to be designated as nonattainment or maintenance. The net increase in emissions of the applicable pollutants are compared against the threshold levels established in the Rule, known as the *de minimis* thresholds, published at 40 CFR 93.153(b)(1)-(b), Applicability Analysis. Under the General Conformity Rule, if the net increase in emissions due to a federal action equals or exceeds USEPA established *de minimis* thresholds, a General Conformity Determination would be required. As previously mentioned, the General Conformity Rule applies to a federal action that is located in an area designated nonattainment or maintenance by the USEPA.

The State of New York is part of the ozone transport region. In addition, according to the USEPA Green Book², Dutchess County is currently designated moderate nonattainment for 8-hour ozone (1997) and for 1-hour ozone (1979). Therefore, the air quality impacts associated with the Proposed Project will be analyzed based on Dutchess County being in moderate nonattainment with the 1997 ozone designation.

Ozone is not directly emitted from a source but is formed through the reaction of oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) in the presence of sunlight. Emissions of ozone are evaluated based on emissions of the ozone precursor pollutants, NO_x and VOCs. Therefore, the applicability analysis for General Conformity for this project only applies to NO_x and VOCs.

1.3.3 NEPA

In 1970, the National Environmental Policy Act (NEPA) and its amendments, established a broad national policy to protect the quality of the human environment and provide for the establishment of a Council on Environmental Quality (CEQ). The act provides policies and goals to ensure that environmental considerations are given careful attention and appropriate weight in all decisions of the Federal Government. The NEPA environmental review process discloses these impacts on the human environment. As part of the NEPA process, the proposed action's impact on air quality is assessed by evaluating the impact of the proposed action on the NAAQS.

² Nonattainment areas for criteria pollutants (green book). (2021, February 26). Retrieved March 22, 2021, from <https://www.epa.gov/green-book>



1.3.4 Climate Change

There are no federal or state standards for aviation-related greenhouse gas (GHG) emissions. The CEQ has indicated that climate should be considered in NEPA analyses. As noted by CEQ, “federal agencies, to remain consistent with NEPA, should consider the extent to which a proposed action and its reasonable alternatives contribute to climate change through GHG emissions and take into account the ways in which a changing climate over the life of the proposed project may alter the overall environmental implications of such actions” (CEQ December 18, 2014).

1.4 Significant Impact Threshold

1.4.1 Criteria Pollutants

Potentially significant air quality impacts would occur if a proposed project would cause pollutant concentrations to exceed one or more of the NAAQS for any of the time periods analyzed or to increase the frequency or severity of any such existing violations. **Table 1-1** presents the applicable *de minimis* thresholds for pollutants based on their nonattainment status under the General Conformity Rule.



Table 1-1: Clean Air Act *De Minimis* Thresholds

Pollutant	Nonattainment Area Threshold (tons per year)	Maintenance Area Threshold (tons per year)
Carbon Monoxide (CO)	100	100
Particulate Matter (PM₁₀)		100
Moderate Nonattainment Area	100	
Serious Nonattainment Area	70	
Particulate Matter (PM_{2.5})		
Direct Emissions	100	100
SO ₂	100	100
NO _x	100	100
VOC or Ammonia	100	100
Sulfur Dioxide (SO₂)	100	
Nitrogen Dioxide (NO₂)	100	
Lead (Pb)	25	25
Ozone (O₃)	<i>VOC/NO_x</i>	<i>VOC/NO_x</i>
Serious Nonattainment Area	50/50	
Severe Nonattainment Area	25/25	
Extreme Nonattainment Area	10/10	
Inside an ozone transport region:	50/100	50/100
Outside an ozone transport region:	100/100	100/100

Source: 40 CFR 93.153(b)(1) & (2)

As previously mentioned, the General Conformity Rule applies only to a federal action that is located in an area designated nonattainment or maintenance by the USEPA. Since the Proposed Project is located in a moderate nonattainment area for ozone, General Conformity Applicability applies to this project.

1.4.2 Greenhouse Gas Pollutants

Since there are no federal or state standards for aviation-related GHG emissions, there is no significant impact threshold for GHGs.



Section 2—Construction Emission Inventory

2.1 Methodology

In accordance with the FAA *Air Quality Handbook*, a construction emissions inventory was conducted to determine the expected emissions associated with heavy equipment, deliveries, and worker mobilization. At this time a definitive schedule for construction has not been developed. In order to provide a conservative, “worst-case” estimate, emissions were assumed to occur within the shortest realistic time frame. The soonest construction could occur is in 2023. Therefore, all of the Proposed Project’s construction activity was assumed to occur during 2023 (see **Table 2** below).

The construction vehicle fleet properties were not known at the time of this analysis; therefore, the software contained in the *ACRP Report 102: Guidance for Estimating Airport Construction Emissions* was utilized to generate default equipment lists for each construction project. ACRP Report 102 provides guidance and an interactive modeling tool, called Airport Construction Emissions Inventory Tool (ACEIT), to assist airports and other stakeholders in developing airport construction emission inventories. It should be noted that representatives from USEPA participated on the ACRP panel for the ACEIT modeling tool.

ACEIT can model projects based on known equipment use information or based on known project types. For this analysis, project types (i.e., airfield lighting, site work, etc.) that match the scope of the work were selected and the model automatically selected a standard mix of activities for the project type. For example, if the “Access Road” project type is selected, typical construction activities such as grading, excavation, and asphalt placement are automatically selected. The user is later prompted to enter overall size information, such as the dimensions of a building or parking lot, as well as the overall cost of the project. These inputs are used to calculate an assumed off-road construction equipment usage (in hours), on-road vehicle usage (in miles), and inputs for fugitive emission calculations. The actual projects and ACEIT representative project selected are presented in **Table 2** below.

Table 2: Selected ACEIT Projects

Project	ACEIT Representative Project
Access Road	Access Road
Airfield Lighting	Airfield Lighting
Access Road Demolition	Demolition (Asphalt/Concrete)
NAVAIDS	NAVAIDS
Runway Markings	Runway Markings
Site Work	Site Work 10000 sqft

Source: ACEIT Modeling Program, C&S Engineers, Inc., Analysis 2021



ACEIT has emission factors for fugitive and mobile sources incorporated into the software, however the emission factors for mobile sources have been updated and rereleased in other models. Therefore, fugitive source emissions were calculated through ACEIT while emission factors for each of the equipment types specified in ACEIT were generated through the latest version of USEPA’s MOTO Vehicle Emission Simulator (MOVES3). MOVES3 is the latest version of emissions modeling software for mobile sources that was developed as a combination of two legacy models – NONROAD (which was previously only for off-road vehicles) and MOVES2012 (which was previously only for on-road vehicles).

In order to be conservative, it was assumed that all equipment would be operating on diesel, with the exception of chain saws and on-road passenger vehicles for construction employees, which are assumed to operate on gasoline.

2.2 Results

Based on the results for the ACEIT and MOVES3 modeling programs, **Table 3** presents the expected annual construction emissions by year for all criteria and greenhouse gas pollutants as a result of the Proposed Project. ACEIT modeling results are included within **Attachment 1**.

Table 3: De Minimis Thresholds and Total Emissions by Year

Year	Source	VOC	NO _x	PM _{2.5}	PM ₁₀	CO	SO ₂
<i>De Minimis Threshold</i>		50	100	100	100	100	100
2023	Non-road	0.663	0.156	0.115	0.102	3.931	1.394
2023	On-road	0.066	1.094	0.043	0.046	0.706	0.001
2023	Fugitive	0.212	0.001	--	0.024	0	0
2023 Total Emissions		0.942	1.251	0.158	0.172	4.651	1.396

*Total also includes emissions from fugitive sources.

As shown in **Table 3**, none of the annual emissions for nonattainment and maintenance parameters exceeded the respective *de minimis* thresholds.

2.3 Impact Analysis

2.3.1 CAA – Conformity Analysis

Since the Proposed Project does not include the modification of existing airport operations or the construction of new facilities, there would not be an increase in airport related or stationary emissions as a result of this project. Therefore, as provided in **Section 2.2**, the Proposed Project will not result in an increase in emissions above applicable *de minimis* thresholds (i.e. NO_x and VOCs) in any future calendar year. No further analysis is required under the



General Conformity Rule and the proposed project would be presumed to conform to the state implementation plan (SIP).

2.3.2 NEPA

Under NEPA, Federal agencies are required to assess the impacts federal actions may have on air quality and the human environment. As part of the NEPA process, the proposed action’s impact on air quality is assessed by evaluating the impact of the proposed action on the NAAQS. The methodology for evaluating the need to conduct an air quality analysis is provided in the FAA document, *Aviation Emissions and Air Quality Handbook Version 3, Update 1* dated January 2015 (*Air Quality Handbook*). In accordance with procedures outlined in that document, the airport and the proposed projects impacts to air quality were evaluated based on the following:

Indirect Source Review

New York State regulations for indirect sources apply only to the County of New York south of 60th Street. The Proposed Project is taking place in Dutchess County. Therefore, the Proposed Project does not require an indirect source review.

General Conformity with SIP

As demonstrated in the previous section, the increase in emissions is below applicable *de minimis* thresholds and the Proposed Project would be presumed to conform to the SIP.

NAAQS Assessment

Since the proposed project would cause an increase in emissions, the FAA *Air Quality Handbook* requires completion of an emissions inventory. Based on the results of the ACEIT modeling software (see **Attachment 1**), **Table 3** presents the expected emissions of all criteria pollutants.

2.3.3 Climate Change

GHG emissions were estimated using the same methodology described in **Section 2.1**. Based on the results of the ACEIT modeling software, **Table 4** presents the expected increase in emissions of greenhouse gases by year.

Table 4: Greenhouse Gas Emissions by Year

Year	Source	CO2	CO2e
2023	Non-road	432.413	480.147
2023	On-road	245.769	246.002
2023 Total Emissions		678.182	726.150

Source: MOVES3 Modeling Software, C&S Engineers, Inc., Analysis 2023



Section 3—Summary

The runway safety area improvements at POU will increase emissions during the 2023 calendar year based on the assumed construction schedule.

3.1 CAA – Conformity Analysis

As illustrated in **Table 3**, the total increase in annual emissions from the Proposed Project for non-attainment and maintenance parameters (NO_x and VOCs) are below the *de minimis* thresholds of 50 tons per year for VOCs, and 100 tons per year for NO_x. Therefore, a General Conformity Determination is not required.

3.2 NEPA

As illustrated in **Table 3**, the increase in emissions resulting from the Proposed Project were below the *de minimis* thresholds levels, even for attainment parameters. Therefore, given the expected emissions and the short time-frame of construction, it is unlikely that the pollutant concentration levels would exceed a NAAQS standard.

3.3 Climate Change

Greenhouse gas emissions associated with the project were calculated for carbon dioxide, methane, and nitrous oxide. The Proposed Project would temporarily increase carbon dioxide emissions due to increased vehicle movements associated with construction equipment and travel by contractors. As presented in **Table 4**, the increase in carbon dioxide equivalent emissions is 726 metric tons in 2023. There are currently no federal requirements for reporting greenhouse gases from aviation sources and no significance thresholds.

3.4 Conclusion

Given the information detailed above, as well as the fact that the proposed action would not have an effect on enplanements or aircraft operations at the airport, the Proposed Project would not significantly impact air quality.

Attachment A

Modeling Results

Attachment 1 - Construction Emissions: Onroad Sources

Season	Vehicle Type	Total Project VMT*	CO (g/mi)**	VOC (g/mi)**	SOx (g/mi)**	NOx (g/mi)**	PM10 - Total (g/mi)**	PM2.5 Total (g/mi)**	CO2 (g/mi)**	CH4 (g/mi)**	N2O (g/mi)**	CO2e (g/mi)**	CO (ST)	VOC (ST)	SOx (ST)	NOx (ST)	PM10 - Total (ST)	PM2.5 Total (ST)	CO2 (MT)	CH4 (MT)	N2O (MT)	CO2e (MT)
Summer 2023	Combination Short-haul Truck	85,023.00	3.284	0.426	0.006	8.824	0.369	0.339	1,667.250	0.018	0.002	1,668.405	0.308	0.040	0.001	0.827	0.035	0.032	141.755	0.002	0.000	141.853
	Passenger Car	80,025.00	2.727	0.019	0.002	0.054	0.002	0.001	290.240	0.008	0.001	290.806	0.241	0.002	0.000	0.005	0.000	0.000	23.226	0.001	0.000	23.272
	Passenger Truck	8,149.54	1.618	0.118	0.002	0.800	0.032	0.029	490.470	0.007	0.002	491.175	0.015	0.001	0.000	0.007	0.000	0.000	3.997	0.000	0.000	4.003
	Single Unit Short-haul Truck	79,115.43	1.646	0.272	0.003	2.929	0.129	0.119	970.616	0.014	0.002	971.678	0.144	0.024	0.000	0.255	0.011	0.010	76.791	0.001	0.000	76.875
TOTAL CONSTRUCTION EMISSIONS - ONROAD SOURCES													0.706	0.066	0.001	1.094	0.046	0.043	245.769	0.003	0.001	246.002

*VMT generated by ACEIT

**Data generated by MOVES

4	2023	8	NAVAIDS	Precision Approach Path Indicator (PAPI)	Tractors/Loader/Backhoe	Diesel	16	46.121	9.103	0.040	53.733	6.893	6.687	13,045.432	0.464	0.001	0.000	0.000	0.001	0.000	0.000	0.209	0.000	0.209				
5	2023	8	Runway Markings	Marking Removal	Pressure Washer	Diesel	38	27.201	7.291	0.041	73.466	4.234	4.107	12,555.348	0.339	0.001	0.000	0.000	0.003	0.000	0.000	0.477	0.000	0.478				
5	2023	8	Runway Markings	Marking Removal	Sweepers/Scrubbers	Diesel	38	7.883	1.502	0.062	37.766	1.314	1.274	22,924.119	0.152	0.000	0.000	0.000	0.002	0.000	0.000	0.871	0.000	0.871				
5	2023	8	Runway Markings	Marking Removal	Water Truck	Diesel	38	131.001	30.522	0.180	313.279	21.516	20.870	53,953.439	1.306	0.005	0.001	0.000	0.013	0.001	0.001	2.050	0.000	2.052				
5	2023	8	Runway Markings	Markings	Other General Equipment	Diesel	82.286	150.014	20.974	0.314	308.949	22.056	21.395	104,184.491	1.131	0.014	0.002	0.000	0.028	0.002	0.002	8.573	0.000	8.576				
6	2023	8	Site Work - 10000 sqft	Site Clearing- Remove Trees & Shrubs	Bulldozer	Diesel	775	36.057	5.601	0.228	121.584	5.991	5.811	82,751.258	0.441	0.031	0.005	0.000	0.104	0.005	0.005	64.132	0.000	64.144				
6	2023	8	Site Work - 10000 sqft	Site Clearing- Remove Trees & Shrubs	Chain Saws	Diesel	775	775.000	643.853	180.622	0.011	4.041	23.414	21.541	1,804.457	3.296	0.550	0.154	0.000	0.003	0.020	0.017	1.398	47.564				
6	2023	8	Site Work - 10000 sqft	Site Clearing- Remove Trees & Shrubs	Front Loader	Diesel	775	50.089	8.092	0.218	146.524	8.225	7.978	77,258.466	0.570	0.043	0.007	0.000	0.125	0.007	0.007	59.875	0.000	59.890				
6	2023	8	Site Work - 10000 sqft	Site Clearing- Remove Trees & Shrubs	Grub the site down 2'-0	Diesel	775	150.014	20.974	0.314	308.949	22.056	21.395	104,184.491	1.131	0.128	0.018	0.000	0.264	0.019	0.018	80.743	0.001	80.773				
6	2023	8	Site Work - 10000 sqft	Site Clearing- Remove Trees & Shrubs	Log Chipper	Diesel	775	57.357	12.276	0.107	166.654	10.080	9.777	34,114.981	0.567	0.049	0.010	0.000	0.142	0.009	0.008	26.439	0.000	26.454				
6	2023	8	Site Work - 10000 sqft	Site Clearing- Remove Trees & Shrubs	Mulcher	Diesel	775	57.357	12.276	0.107	166.654	10.080	9.777	34,114.981	0.567	0.049	0.010	0.000	0.142	0.009	0.008	26.439	0.000	26.454				
6	2023	8	Site Work - 10000 sqft	Site Clearing- Remove Trees & Shrubs	Tractor	Diesel	1551	46.121	9.103	0.040	53.733	6.893	6.687	13,045.432	0.464	0.079	0.016	0.000	0.092	0.012	0.011	20.233	0.001	20.258				
6	2023	8	Site Work - 10000 sqft	Site Restoration- Landscaping (Rough Grading)	Compacting Equipment	Diesel	465	7.270	2.172	0.007	13.252	0.767	0.744	1,905.922	0.188	0.004	0.001	0.000	0.007	0.000	0.000	0.886	0.000	0.889				
6	2023	8	Site Work - 10000 sqft	Site Restoration- Landscaping (Rough Grading)	Small Dozer	Diesel	465	38.170	8.189	0.025	43.941	5.741	5.568	7,977.748	0.281	0.020	0.004	0.000	0.023	0.003	0.003	3.710	0.000	3.714				
6	2023	8	Site Work - 10000 sqft	Site Restoration- Landscaping (Top Soil Seed and Plantings)	Forktruck (Hoist)	Diesel	1551	25.196	5.174	0.023	37.070	3.437	3.333	7,121.394	0.248	0.043	0.009	0.000	0.063	0.006	0.006	11.045	0.000	11.058				
6	2023	8	Site Work - 10000 sqft	Site Restoration- Landscaping (Top Soil Seed and Plantings)	Roller	Diesel	775	18.905	3.149	0.085	58.948	2.918	2.831	30,460.520	0.286	0.016	0.003	0.000	0.050	0.002	0.002	23.607	0.000	23.614				
6	2023	8	Site Work - 10000 sqft	Site Restoration- Landscaping (Top Soil Seed and Plantings)	Seed Truck Spreader	Diesel	310	150.014	20.974	0.314	308.949	22.056	21.395	104,184.491	1.131	0.051	0.007	0.000	0.106	0.008	0.007	32.297	0.000	32.309				
TOTAL CONSTRUCTION EMISSIONS - NONROAD SOURCES																3.931	0.663	0.156	1.394	0.102	0.115	432.413	1.404	480.147				

*Data generated by ACEIT

**Data generated by MOVES

Attachment 1 - Construction Emissions: Fugitive Sources

Scenario ID	Year	Project	Fugitive Source Type	Number of Months	CO (tons)	NOx (tons)	SO2 (tons)	PM10 (tons)	VOC (tons)
1	2023	Access Road	Asphalt Drying	1	-	-	-	-	0.211
1	2023	Access Road	Asphalt Storage and Batching	1	0.014	0.001	0.000	0.001	0.000
1	2023	Access Road	Material Movement (Paved Roads)	1	-	-	-	0.002	-
1	2023	Access Road	Material Movement (Unpaved Roads)	1	-	-	-	0.005	-
1	2023	Access Road	Soil Handling	1	-	-	-	0.002	-
1	2023	Access Road	Unstabilized Land and Wind Erosion	1	-	-	-	0.000	-
2	2023	Airfield Lighting	Material Movement (Paved Roads)	1	-	-	-	0.001	-
3	2023	Demolition - Asphalt	Material Movement (Paved Roads)	1	-	-	-	0.001	-
3	2023	Demolition - Asphalt	Material Movement (Unpaved Roads)	1	-	-	-	0.002	-
3	2023	Demolition - Asphalt	Soil Handling	1	-	-	-	0.001	-
3	2023	Demolition - Asphalt	Unstabilized Land and Wind Erosion	1	-	-	-	0.000	-
4	2023	Demolition - Concrete	Material Movement (Paved Roads)	1	-	-	-	0.001	-
4	2023	Demolition - Concrete	Material Movement (Unpaved Roads)	1	-	-	-	0.002	-
4	2023	Demolition - Concrete	Soil Handling	1	-	-	-	0.000	-
4	2023	Demolition - Concrete	Unstabilized Land and Wind Erosion	1	-	-	-	0.000	-
4	2023	NAVAIDS	Material Movement (Paved Roads)	1	-	-	-	-	-
6	2023	Site Work - 10000 sqft	Material Movement (Paved Roads)	1	-	-	-	0.002	-
6	2023	Site Work - 10000 sqft	Material Movement (Unpaved Roads)	1	-	-	-	0.005	-
6	2023	Site Work - 10000 sqft	Soil Handling	1	-	-	-	0.003	-
6	2023	Site Work - 10000 sqft	Unstabilized Land and Wind Erosion	1	-	-	-	0.000	-
TOTAL CONSTRUCTION EMISSIONS - FUGITIVE SOURCES					0.014	0.001	0.000	0.024	0.212

Fugitive source emissions calculated in ACEIT