

APPENDIX A

Air Quality - Emissions Analysis

Total Construction with COA's Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e	
Year	Tons					MT	
Construction Equipment							
2026	0.01	0.42	0.003	0.003	0.01	153.77	
2027	0.19	0.61	0.004	0.004	0.01	191.27	
<i>Total Construction Emissions</i>							
Tons	0.21	1.03	0.01	0.01		345.04	
Pounds/Workdays	<i>Average Daily Emissions</i>					Workdays	
2026	0.24	7.43	0.05	0.05			113
2027	3.04	9.58	0.07	0.07			127
Threshold - lbs/day	54.0	54.0	82.0	54.0			
<i>Total Construction Emissions</i>							
Pounds	414.11	2056.64	14.38	14.07		0.00	
Average	1.73	8.57	0.06	0.06		0.00	240.00
Threshold - lbs/day	54.0	54.0	82.0	54.0			

N-1 New Classrooms Construction with COA's Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
Year	Tons					MT
Construction Equipment						
2026						
2027	0.16	0.33	0.002	0.002	0.01	109.64
<i>Total Construction Emissions</i>						
Tons	0.16	0.33	0.00	0.00		109.64
Average Daily Emissions						
Pounds/Workdays					Workdays	
2026						
2027	2.51	5.16	0.04	0.04		127
Threshold - lbs/day	54.0	54.0	82.0	54.0		
<i>Total Construction Emissions</i>						
Pounds	318.34	654.99	4.81	4.63		0.00
Average	2.51	5.16	0.04	0.04		127.00
Threshold - lbs/day	54.0	54.0	82.0	54.0		

Number of Days Per Year

2027	6/1/2027	11/23/2027	176	127
			176	127 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	6/1/2027	6/15/2027	5	10
Site Preparation	6/16/2027	6/17/2027	5	1
Grading	6/18/2027	6/20/2027	5	2
Building Construction	6/21/2027	11/8/2027	5	100
Paving	11/17/2027	11/23/2027	5	5
Architectural Coating	11/9/2027	11/15/2027	5	5
Trenching	6/18/2027	6/21/2027	5	2

S-2 New Weight Room Construction with COA's Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e
Year	Tons					MT
Construction Equipment						
2026						
2027	0.03	0.28	0.002	0.002	0.003	81.63
<i>Total Construction Emissions</i>						
Tons	0.03	0.28	0.00	0.00		81.63
Average Daily Emissions						
Pounds/Workdays					Workdays	
2026						
2027	0.56	4.64	0.03	0.03		121
Threshold - lbs/day	54.0	54.0	82.0	54.0		
<i>Total Construction Emissions</i>						
Pounds	68.29	561.71	3.81	3.73		0.00
Average	0.56	4.64	0.03	0.03		0.00
Threshold - lbs/day	54.0	54.0	82.0	54.0		121.00

Number of Days Per Year

2027	6/1/2027	11/15/2027	168	121
			168	121 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	6/1/2027	6/15/2027	5	10
Site Preparation	6/16/2027	6/17/2027	5	1
Grading	6/18/2027	6/20/2027	5	2
Building Construction	6/21/2027	11/8/2027	5	100
Architectural Coating	11/9/2027	11/15/2027	5	5
Trenching	6/18/2027	6/21/2027	5	2

Field Turf Construction with COA's Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e	
Year	Tons					MT	
Construction Equipment							
2026	0.004	0.16	0.001	0.001	0.01	83.06	
2027							
<i>Total Construction Emissions</i>							
Tons	0.00	0.16	0.00	0.00		83.06	
<i>Average Daily Emissions</i>							
Pounds/Workdays						Workdays	
2026	0.79	34.97	0.26	0.26			9
2027							
Threshold - lbs/day	54.0	54.0	82.0	54.0			
<i>Total Construction Emissions</i>							
Pounds	7.15	314.73	2.36	2.35		0.00	
Average	0.79	34.97	0.26	0.26		0.00	9.00
Threshold - lbs/day	54.0	54.0	82.0	54.0			

Number of Days Per Year

2026	6/1/2026	6/11/2026	11	9
			11	9 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Site Preparation	6/1/2026	6/3/2026	5	3
Grading	6/4/2026	6/11/2026	5	6
Trenching	6/4/2026	6/11/2026	5	6

Bleachers Construction with COA's Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	CO2e	
Year	Tons					MT	
Construction Equipment							
2026	0.01	0.26	0.002	0.002	0.002	70.71	
2027							
<i>Total Construction Emissions</i>							
Tons	0.01	0.26	0.00	0.00		70.71	
Pounds/Workdays	<i>Average Daily Emissions</i>				Workdays		
2026	0.18	4.65	0.03	0.03			113
2027							
Threshold - lbs/day	54.0	54.0	82.0	54.0			
<i>Total Construction Emissions</i>							
Pounds	20.33	525.20	3.40	3.35		0.00	
Average	0.18	4.65	0.03	0.03		0.00	113.00
Threshold - lbs/day	54.0	54.0	82.0	54.0			

Number of Days Per Year

2026	6/1/2026	11/4/2026	157	113
			157	113 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	6/1/2026	6/14/2026	5	10
Site Preparation	6/15/2026	6/15/2026	5	1
Grading	6/16/2026	6/17/2026	5	2
Building Construction	6/18/2026	11/4/2026	5	100
Trenching	6/16/2026	6/17/2026	5	2

Menlo-Atherton High School, Atherton, CA
- Construction Health Emissions Summary

DPM Construction Emissions - Without COA & MM AIR-1

Construction Year	Activity	DPM (ton/year)	DPM (lb/yr)
<i>2026-2027</i>	N-1 Construction	0.0104	20.8
<i>2026-2027</i>	S-2 Construction	0.0097	19.4
<i>2026-2027</i>	Field Turf Construction	0.0034	6.8
<i>2026-2027</i>	Bleachers Construction	0.0107	21.5
<i>Total</i>		<i>0.0343</i>	<i>68.5</i>

DPM Construction Emissions - With COA & MM AIR-1

Construction Year	Activity	DPM (ton/year)	DPM (lb/yr)
<i>2026-2027</i>	N-1 Construction	0.0024	4.8
<i>2026-2027</i>	S-2 Construction	0.0019	3.8
<i>2026-2027</i>	Field Turf Construction	0.0012	2.4
<i>2026-2027</i>	Bleachers Construction	0.0017	3.4
<i>Total</i>		<i>0.0072</i>	<i>14.4</i>

Menlo-Atherton High School, Atherton, CA
- Construction Health Emissions Summary

PM2.5 Fugitive Dust Construction Emissions - Without COA & MM AIR-1

Construction Year	Activity	PM2.5 (ton/year)	PM2.5 (lb/yr)
<i>2026-2027</i>	N-1 Construction	0.0098	19.5
<i>2026-2027</i>	S-2 Construction	0.0044	8.7
<i>2026-2027</i>	Field Turf Construction	0.0156	31.3
<i>2026-2027</i>	Bleachers Construction	0.0036	7.3
<i>Total</i>		<i>0.0334</i>	<i>66.8</i>

PM2.5 Fugitive Dust Construction Emissions - With COA & MM AIR-1

Construction Year	Activity	PM2.5 (ton/year)	PM2.5 (lb/yr)
<i>2026-2027</i>	N-1 Construction	0.0082	16.3
<i>2026-2027</i>	S-2 Construction	0.0028	5.5
<i>2026-2027</i>	Field Turf Construction	0.0091	18.3
<i>2026-2027</i>	Bleachers Construction	0.0021	4.1
<i>Total</i>		<i>0.0221</i>	<i>44.2</i>

Air Quality/Noise Construction Information Data Request

Project Name: Menlo Atherton High School - New Buildings					Complete ALL Portions in Yellow				
See Equipment Type TAB for type, horsepower and load factor									
Project Size					1 total project acres disturbed				
28,000 s.f. E-Wing and D-Wing South Buildings					Pile Driving? Y/N? N				
s.f. New Weight Room									
~1000 s.f. other, asphalt:					1. Demolition of the existing E-Wing South and D-Wing South buildings, along with associated canopy structures, and the construction of a new three-story building totaling approximately 28,000 square feet. 2. Construction of a new approx. 4,500sf Weight Room and PE Classroom Building				
s.f. parking garage _____ spaces									
s.f. parking lot _____ spaces									
Construction Days (i.e. M-F) _____ to _____									
Construction Hours _____ am to _____ pm					DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT				
Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments	
Demolition		Start Date:	6/1/2027		Total phase:		10		Overall Import/Export Volumes
		End Date:	6/15/2027						Demolition Volume
1	Concrete/Industrial Saws	33	0.73	8	10	8	1927	Square footage of buildings to be demolished	
	Excavators	36	0.38			0	0	(or total tons to be hauled)	
1	Rubber-Tired Dozers	367	0.4	1	10	1	1468	Est. 40,000 square feet or	
2	Tractors/Loaders/Backhoes	84	0.37	6	10	6	3730	Hauling volume (tons)	
Other Equipment?								Any pavement demolished and hauled? <u> </u> tons	
Site Preparation		Start Date:	6/16/2027		Total phase:		1		
		End Date:	6/17/2027						Soil Hauling Volume
1	Graders	148	0.41	8	1	8	485	Export volume = Est. 1000 cubic yards?	
	Rubber Tired Dozers	367	0.4			0	0	Import volume = Est. 1000 cubic yards?	
1	Tractors/Loaders/Backhoes	84	0.37	8	1	8	249		
Other Equipment?									
Grading / Excavation		Start Date:	6/18/2027		Total phase:		2		
		End Date:	6/20/2027						
	Excavators	36	0.38			0	0		
1	Graders	148	0.41	6	2	6	728		
1	Rubber Tired Dozers	367	0.4	6	2	6	1762		
	Concrete/Industrial Saws	33	0.73			0	0		
1	Tractors/Loaders/Backhoes	84	0.37	7	2	7	435		
Other Equipment?									
Trenching/Foundation		Start Date:	6/18/2027		Total phase:		2		
		End Date:	6/20/2027						
1	Tractor/Loader/Backhoe	84	0.37	8	2	8	497		
1	Excavators	36	0.38	8	2	8	219		
Other Equipment?									
Building - Exterior		Start Date:	6/21/2027		Total phase:		100		Cement Trucks? Est. 77 Total Round-Trips
		End Date:	11/8/2027						Electric? (Y/N) Otherwise assumed diesel
1	Cranes	367	0.29	4	100	4	42572	Liquid Propane (LPG)? (Y/N) Otherwise Assumed diesel	
2	Forklifts	82	0.2	6	100	6	19680	Or temporary line power? (Y/N)	
2	Generator Sets	14	0.74	8	100	8	16576		
	Tractors/Loaders/Backhoes	84	0.37			0	0		
	Welders	46	0.45			0	0		
Other Equipment?									
Building - Interior/Architectural Coating		Start Date:	11/9/2027		Total phase:		5		
		End Date:	11/16/2027						
1	Air Compressors	37	0.48	6	5	6	533		
	Aerial Lift	46	0.31			0	0		
Other Equipment?									
Paving		Start Date:	11/17/2027		Total phase:		5		
		Start Date:	11/24/2027						Asphalt? ___ cubic yards or ___ Est. 4__ round trips?
4	Cement and Mortar Mixers	10	0.56	6	5	6	672		
1	Pavers	81	0.42	7	5	7	1191		
	Paving Equipment	89	0.36			0	0		
1	Rollers	36	0.38	7	5	7	479		
1	Tractors/Loaders/Backhoes	84	0.37	7	5	7	1088		
Other Equipment?									
Additional Phases		Start Date:			Total phase:				
		Start Date:							
						#DIV/0!	0		
						#DIV/0!	0		
						#DIV/0!	0		
						#DIV/0!	0		
						#DIV/0!	0		
Equipment types listed in "Equipment Types" worksheet tab.									
Equipment listed in this sheet is to provide an example of inputs									
It is assumed that water trucks would be used during grading									
Add or subtract phases and equipment, as appropriate									
Modify horsepower or load factor, as appropriate									
					Complete one sheet for each project component				

Air Quality/Noise Construction Information Data Request

Project Name: Menlo Atherton High School - New Buildings	Complete ALL Portions in Yellow
<small>See Equipment Type TAB for type, horsepower and load factor</small>	
Project Size Dwelling Units: <u>0.5 total project</u> acres disturbed s.f. E-Wing and D-Wing South Buildings 4,500 s.f. New Weight Room s.f. other, asphalt: s.f. parking garage: _____ spaces s.f. parking lot: _____ spaces Construction Days (i.e., M-F) _____ to _____ Construction Hours _____ am to _____ pm	Pile Driving? Y/N? N 1. Demolition of the existing E-Wing South and D-Wing South buildings, along with associated canopy structures, and the construction of a new three-story building totaling approximately 28,000 square feet. 2. Construction of a new approx. 4,500sf Weight Room and PE Classroom Building
DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT	

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
Demolition								
		Start Date:	6/1/2027	Total phase:		10		
		End Date:	6/15/2027					
1	Concrete/Industrial Saws	33	0.73	8	10	8	1927	Demolition Volume Square footage of buildings to be demolished (or total tons to be hauled)
	Excavators	36	0.38			0	0	
1	Rubber-Tired Dozers	367	0.4	1	10	1	1468	Est. 5,000 square feet or Hauling volume (tons) Any pavement demolished and hauled? <u>tons</u>
2	Tractors/Loaders/Backhoes	84	0.37	6	10	6	3730	
	Other Equipment?							
Site Preparation								
		Start Date:	6/16/2027	Total phase:		1		
		End Date:	6/17/2027					
1	Graders	148	0.41	8	1	8	485	Soil Hauling Volume Export volume = Est. 1000 cubic yards? Import volume = Est. 1000 cubic yards?
	Rubber Tired Dozers	367	0.4			0	0	
1	Tractors/Loaders/Backhoes	84	0.37	8	1	8	249	
	Other Equipment?							
Grading / Excavation								
		Start Date:	6/18/2027	Total phase:		2		
		End Date:	6/20/2027					
	Excavators	36	0.38			0	0	Soil Hauling Volume Export volume = Est. 1000 cubic yards? Import volume = Est. 1000 cubic yards?
1	Graders	148	0.41	6	2	6	728	
1	Rubber Tired Dozers	367	0.4	6	2	6	1762	
	Concrete/Industrial Saws	33	0.73			0	0	
1	Tractors/Loaders/Backhoes	84	0.37	7	2	7	435	
	Other Equipment?							
Trenching/Foundation								
		Start Date:	6/18/2027	Total phase:		2		
		End Date:	6/20/2027					
1	Tractor/Loader/Backhoe	84	0.37	8	2	8	497	
1	Excavators	36	0.38	8	2	8	219	
	Other Equipment?							
Building - Exterior								
		Start Date:	6/21/2027	Total phase:		100		
		End Date:	11/8/2027					
1	Cranes	367	0.29	4	100	4	42572	Cement Trucks? Est. 37 Total Round-Trips Electric? (Y/N) Otherwise assumed diesel Liquid Propane (LPG)? (Y/N) Otherwise Assumed diesel Or temporary line power? (Y/N)
2	Forklifts	82	0.2	6	100	6	19680	
2	Generator Sets	14	0.74	8	100	8	16576	
	Tractors/Loaders/Backhoes	84	0.37			0	0	
	Welders	46	0.45			0	0	
	Other Equipment?							
Building - Interior/Architectural Coating								
		Start Date:	11/9/2027	Total phase:		5		
		End Date:	11/16/2027					
1	Air Compressors	37	0.48	6	5	6	533	
	Aerial Lift	46	0.31			0	0	
	Other Equipment?							
Additional Phases								
		Start Date:		Total phase:				
		Start Date:						
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs
 It is assumed that water trucks would be used during grading
Add or subtract phases and equipment, as appropriate
Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: Menlo Atherton High School - Stadium Artificial Turf	Complete ALL Portions in Yellow
See Equipment Type TAB for type, horsepower and load factor	
Project Size _____ Dwelling Units _____ 2.5 total project acres disturbed _____ 2.5 acres Park _____ s.f. Stadium Support Facilities _____ s.f. office/commercial _____ s.f. other, specify: _____ s.f. parking garage _____ spaces _____ s.f. parking lot _____ spaces Construction Days (i.e, M-F) _____ to _____ Construction Hours _____ am to _____ pm	Pile Driving? Y/N? N 1. Replacement of natural grass with artificial turf at the baseball and softball fields to reduce maintenance and water use.
DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT	

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
Site Preparation		Start Date:	6/1/2026	Total phase:	3			
		End Date:	6/3/2026					
1	Graders	148	0.41	8	3	8	1456	
	Rubber Tired Dozers	367	0.4			0	0	
1	Tractors/Loaders/Backhoes	84	0.37	7	3	7	653	
1	Other Equipment? Scrapers	423	0.48	8	3	8	4873	
Grading / Excavation		Start Date:	6/4/2026	Total phase:	6			
		End Date:	6/11/2026					
	Excavators	36	0.38			0	0	Export volume = Est. 7,750 cubic yards?
1	Graders	148	0.41	8	6	8	2913	Import volume = Est. 7,750 cubic yards?
1	Rubber Tired Dozers	367	0.4	8	6	8	7046	
	Concrete/Industrial Saws	33	0.73			0	0	
2	Tractors/Loaders/Backhoes	84	0.37	7	6	7	2611	
	Other Equipment?							
Trenching/Foundation		Start Date:	6/4/2026	Total phase:	6			
		End Date:	6/11/2026					
1	Tractor/Loader/Backhoe	84	0.37	8	6	8	1492	
1	Excavators	36	0.38	8	6	8	657	
	Other Equipment?							
Additional Phases		Start Date:		Total phase:				
		Start Date:						
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs
 It is assumed that water trucks would be used during grading
Add or subtract phases and equipment, as appropriate
Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: Menlo Atherton High School - Stadium Bleachers					Complete ALL Portions in Yellow				
See Equipment Type TAB for type, horsepower and load factor									
Project Size _____ Dwelling Units _____ 0.5 total project acres disturbed _____ 0.5 acres Park ~7,500 s.f. Stadium Support Facilities _____ s.f. office/commercial _____ s.f. other, specify: _____ s.f. parking garage _____ spaces _____ s.f. parking lot _____ spaces Construction Days (i.e, M-F) _____ to _____ Construction Hours _____ am to _____ pm					Pile Driving? Y/N? N				
Demolishing the existing concrete bleachers and the adjacent American with Disabilities (ADA)-compliant concrete platform, and installing aluminum bleachers and a press.									
DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT									
Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments	
Demolition		Start Date: 6/1/2026		Total phase: 10		Overall Import/Export Volumes			
		End Date: 6/14/2026					Demolition Volume		
1	Concrete/Industrial Saws	33	0.73	8	10	8	1927	Square footage of buildings to be demolished	
1	Excavators	36	0.38			0	0	(or total tons to be hauled)	
1	Rubber-Tired Dozers	367	0.4	1	10	1	1468	Est. 7500 square feet or	
2	Tractors/Loaders/Backhoes	84	0.37	6	10	6	3730	Est. ~5,000 sf concrete	
Other Equipment?								Any pavement demolished and hauled? <u> </u> tons	
Site Preparation		Start Date: 6/15/2026		Total phase: 1					
		End Date: 6/15/2026					Soil Hauling Volume		
1	Graders	148	0.41	8	1	8	485		
1	Rubber Tired Dozers	367	0.4			0	0		
1	Tractors/Loaders/Backhoes	84	0.37	8	1	8	249		
Other Equipment?									
Grading / Excavation		Start Date: 6/16/2026		Total phase: 2					
		End Date: 6/17/2026					Soil Hauling Volume		
1	Excavators	36	0.38			0	0		
1	Graders	148	0.41	6	2	6	728		
1	Rubber Tired Dozers	367	0.4	6	2	6	1762		
1	Concrete/Industrial Saws	33	0.73			0	0		
1	Tractors/Loaders/Backhoes	84	0.37	7	2	7	435		
Other Equipment?									
Trenching/Foundation		Start Date: 6/16/2026		Total phase: 2					
		End Date: 6/17/2026					Cement Trucks? Est. 20 Total Round-Trips		
1	Tractor/Loader/Backhoe	84	0.37	8	2	8	497	~4,500 sf concrete	
1	Excavators	36	0.38	8	2	8	219	Electric? (Y/N) _____ Otherwise assumed diesel	
Other Equipment?								Liquid Propane (LPG)? (Y/N) _____ Otherwise Assumed diesel	
Building - Exterior		Start Date: 7/9/2026		Total phase: 100					
		End Date: 11/4/2026					Cement Trucks? Est. 20 Total Round-Trips		
1	Cranes	367	0.29	4	100	4	42572	Or temporary line power? (Y/N) _____	
2	Forklifts	82	0.2	6	100	6	19680		
1	Generator Sets	14	0.74			0	0		
2	Tractors/Loaders/Backhoes	84	0.37	8	100	8	49728		
1	Welders	46	0.45			0	0		
Other Equipment?									
Additional Phases		Start Date: _____		Total phase: _____					
		Start Date: _____					#DIV/0!	0	
							#DIV/0!	0	
							#DIV/0!	0	
							#DIV/0!	0	
							#DIV/0!	0	
Equipment types listed in "Equipment Types" worksheet tab.									
Equipment listed in this sheet is to provide an example of inputs									
It is assumed that water trucks would be used during grading									
Add or subtract phases and equipment, as appropriate									
Modify horsepower or load factor, as appropriate									
					Complete one sheet for each project component				