

Appendix C
**Air Quality/Greenhouse Gas
Emissions Technical
Documentation**

C-1 Air Quality/Greenhouse Gas Emissions Technical Documentation

Harvard Westlake

Draft EIR

Air Quality and Greenhouse Gas Technical Appendix

- 1. Modeling Assumptions**
- 2. Air Quality and Greenhouse Gas Emissions
Methodology**
- 3. Air Quality Worksheets**
- 4. Greenhouse Gas (GHG) Worksheets**

Harvard Westlake Project

1. Modeling Assumptions

Harvard-Westlake River Park Project

Existing Land Uses

Land Use Type ¹	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building SF	Lot Acreage	Notes
Golf Course & Tennis Site	Recreational		16.1	Acres			
Clubhouse	Recreational	High-Turnover Restaurant	19.4	1000sqft	19,411.38	0.45	existing use to remain, not included modeling, acreage based on GIS team measurements
Putting Green ²	Recreational	Golf Course		1000sqft			existing use to remain, not included modeling, acreage based on GIS team measurements
Tennis House	Commercial	General Office	0.8	1000sqft	799.00	0.05	Based on Gensler data needs response
Tennis Courts ²	Parking	Other Non Asphalt Surface	128.0	1000sqft	128,000.00	2.94	Based on Gensler data needs response
Golf Related Space							
Golf Course	Recreational	Golf Course	426.0	1000sqft	426,000.00	9.78	From PD. Includes Lighting
Driving Range ²	Recreational	Golf Course	133.9	1000sqft	133,860.95	2.00	Includes Lighting, based on GIS Measurement
Parking Lot ²	Parking	Parking Lot	89.0	Spaces	38,400.00	0.88	
Parcel	Recreational	City Park	47.9	1000sqft	47,916.00	1.10	Based on Gensler data needs response
			Total		774,975.95	16.75	

Summary for CalEEMod Input

Land Use Type ¹	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building SF	Lot Acreage	Notes
Clubhouse + Putting Green	Recreational	High-Turnover Restaurant	19.4114	1000sqft	19,411	0.45	existing use to remain, not included modeling, acreage based on GIS team measurements
Tennis House	Commercial	General Office	0.7990	1000sqft	799.00	0.05	
Tennis Courts ²	Parking	Other Non Asphalt Surface	128.0000	1000sqft	128,000.00	2.94	Added Parking Lot Lighting to account for general lighting.
Golf Related Space	Recreational	Golf Course	559.8610	1000sqft	559,860.95	11.78	Added Parking Lot Lighting to account for general lighting.
Parking Lot ²	Parking	Parking Lot	89.0000	Spaces	38,400.00	0.88	
Parcel	Recreational	City Park	47.9160	1000sqft	47,916.00	1.10	
			Total		774,975.95	16.75	

- Notes:
1. From Project Initial Study unless specified otherwise
 2. Measured from google earth
 3. Includes Lighting assumed to included lighting energy use. Parking lot equivalent energy usage added to these uses.
 4. Water usage based on KPFF Utility Report for any existing uses listed, if not listed, used CalEEMod defaults.
 5. Assumed Existing was historical energy use since operated as golf course since 1957

Project Land Uses

Land Use Type	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building SF	Lot Acreage	Notes
Field A	Recreational	City Park	81.4572	1000sqft	81,457.2	1.87	
Ancillary Structures	Recreational	Health Club	6.185	1000sqft	6,185	0.05	
Locker and meeting rooms					4,200		
Visitor locker rooms					523		
Three restrooms:					1,462		
Bleacher Seats	Parking	Other Non-Asphalt Surface	29.97	1000sqft	29,969.8	0.78	488 bleacher seats and miscellaneous
					117,612.0	2.70	
Field B	Recreational	City Park	145.49	1000sqft	145,490.4	3.34	
Ancillary Structures	Recreational	Health Club	2.86	1000sqft	2,860	0.05	
Locker Rooms					2,400		
Locker rooms (2 @ 1,200 square feet)					460		
Field restroom					1,420		
Maintenance and Field Shed	Industrial	Unrefrigerated Warehouse-No Rail	1.42	1000sqft	700	0.05	
Field shed					29,696.8	0.68	255 seats and miscellaneous
Maintenance shed					179,467.2	4.12	
Seats	Parking	Other Non-Asphalt Surface	29.70	1000sqft			
Multi-Purpose Gymnasium	Recreational	Health Club	80.249	1000sqft	80,249	0.53	Includes Solar PV on Roof, assumed gym seating covered here
Swimming Pool	Recreational	Recreational Swimming Pool	12.672	1000sqft	12,672	0.10	
Pool Deck and Bleacher seating	Parking	Other Non-Asphalt Surface	12.828	1000sqft	12,828	0.10	includes 348 bleacher seats
Locker Rooms	Recreational	Health Club	2.66	1000sqft	2,660	0.05	
Locker and meeting rooms					2,200		
Restroom					460		
Equipment Storage	Industrial	Unrefrigerated Warehouse-No Rail	1.00	1000sqft	1,000	0.05	
Water Storage	Industrial	Unrefrigerated Warehouse-No Rail	23.00	1000sqft	23,000	0.20	
Tennis Courts	Recreational	Racquet Club	68	1000sqft	67,569	1.60	assumes 100 seats included in acreage
Open Space	Recreational	City Park	235.224	1000sqft	235,224	5.40	Public Plazas, water features, landscaped areas
Visitor Center (Former Clubhouse)	Recreational	High Turnover Sit-down restaurant	2.7	1000sqft	19,411	0.45	existing use to remain, not included modeling
Putting Green ²	Recreational	Golf Course	10.0	1000sqft			existing use to remain, not included modeling
Parking Structure	Parking	Enclosed Parking with Elevator	503	Space	223,580	1.00	
Bike Parking	Parking	Parking Lot	28	Space			long term
Parking Lot and roundabout and vehicle entry w.	Parking	Parking Lot	29	Space	37,026	0.85	construction information form - paving
Bike Parking	Parking	Parking Lot	72	Space			short term
Security Kiosk	Commercial	General Office	0.18	1000sqft	180	0.05	
Total					993,067.2	16.75	

Summary for CalEEMod Input

Land Use Type	CalEEMod LandUse Type	CalEEMod LandUse Subtype	Amount	Unit	Building SF	Lot Acreage	Notes
Fields + Open Space	Recreational	City Park	462.172	1000sqft	462,171.6	10.61	Added Parking Lot Lighting to account for general lighting. Pole lighting and LED scoreboards calculated outside of CalEEMod.
Multi Purpose Gym + Locker Rooms	Recreational	Health Club	91.954	1000sqft	91,954.0	0.68	Includes Solar PV on Roof
Sheds + Storage + Water Storage Tanks	Industrial	Unrefrigerated Warehouse-No Rail	25.420	1000sqft	25,420.0	0.30	
Swimming Pool	Recreational	Recreational Swimming Pool	12.672	1000sqft	12,672.0	0.10	Pole lighting and LED scoreboards calculated outside of CalEEMod. Health Club Non-Title 24 Natural Gas usage to account for pool heating as stated in CalEEMod User Guide pg 43.
Tennis Courts + Pool Deck and Bleacher Seats + Parking		Other Non-Asphalt Surface	140.0636	1000sqft	140,063.6	3.16	Added Parking Lot Lighting to account for general lighting.
Visitor Center + Putting Green	Recreational	High Turnover Sit-down restaurant + City Park	19.411	1000sqft	19,411.4	0.45	existing use to remain, not included modeling
Security Kiosk	Commercial	General Office	0.180	1000sqft	180.0	0.05	
Enclosed Parking with Elevator	Parking	Enclosed Parking with Elevator	503.000	Space	223,580.0	1.00	
Parking Lot and roundabout and vehicle entry w.	Parking	Parking Lot	29.000	Space	37,026.0	0.85	
Total					993,067.2	16.75	

- Notes:
1. From Project Initial Study unless specified otherwise, Table 3-1
 2. Measured from google earth
 3. Water usage based on KPFF Utility Report, water demand presented in gallons per day, adjusted to gallons/year.
 4. Non-Title 24 Natural Gas usage to account for pool heating as stated in CalEEMod User Guide pg 43.

Construction Phase	Start Date	End Date	No. Work Days ¹	Maximum Number of Daily Workers ²	Worker One-Way Trips/Max Day ³	Vendor Trips/Max Day (In/Out)	Total Haul or Concrete Truck Trips (In/Out)	Max Daily Haul Trucks/Day	Max Daily Haul Trips/Day (In/Out)
Demolition	7/1/2022	8/31/2022	53	40	80		3026	75	150
Haul truck schedule (Mon-Fri)	7/1/2022	7/31/2022	21						
	8/1/2022	8/31/2022	23						
Site Preparation-1	6/30/2022	7/31/2022	27	40	80		1866		102
Haul truck schedule (Mon-Fri)	6/30/2022	7/26/2022	19				1866		102
Site Preparation-2	9/1/2023	9/30/2023	26	40	80				
Grading/Excavation	8/1/2022	2/27/2023	181	35	70		35716		300
	8/1/2022	8/31/2022	27	35	70				
	9/1/2022	12/31/2022	105	35	70				
	1/1/2023	1/31/2023	26	35	70				
	2/1/2023	2/27/2023	23	35	70				
Haul truck schedule (Mon-Fri)	8/1/2022	8/31/2022	23	35	70		3450		150
Haul truck schedule (Mon-Fri)	9/1/2022	12/31/2022	87	35	70		26100		300
Haul truck schedule (Mon-Fri)	1/1/2023	1/31/2023	22	35	70		6166		300
Haul truck schedule (Mon-Fri)	2/1/2023	2/27/2023	19	35	70				200
Utilities/Trenching	2/2/2023	4/5/2024	368	35	70	6			
	2/2/2023	12/31/2023	285	35	70				
	1/1/2024	4/5/2024	83	35	70				
Foundations/Concrete Pour	12/2/2022	11/30/2023	312	100	200	70			
	12/2/2022	12/31/2022	26	100	200	0			
	1/1/2023	1/31/2023	26	100	200	0			
	2/1/2023	2/28/2023	24	100	200	0	2,400		100
	3/1/2023	5/31/2023	79	100	200	0	15,800		200
	6/1/2023	8/31/2023	79	100	200	70	10,270		130
	9/1/2023	10/31/2023	52	100	200	0	10,400		200
	11/1/2023	11/30/2023	26	100	200				
Building Construction	5/1/2023	10/1/2024	446	100	200	40			
No Workers	5/1/2023	11/30/2023	184			40			
Workers	12/1/2023	12/31/2023	26	100	200	40			
Workers	1/1/2024	10/1/2024	236	100	200	40			
Architectural Coatings	1/2/2024	12/27/2024	310	140	280	40			
	1/2/2024	10/31/2024	261	140	280	40			
	11/1/2024	11/30/2024	26	140	280	20			
	12/1/2024	12/27/2024	23	140	280	10			
Pavings	11/1/2024	12/3/2024	28	30	60	10			
	11/1/2024	12/3/2024	28	30	60	10			
Landscape	10/2/2023	12/31/2024	392						
No Workers	10/2/2023	12/31/2023	78			20	4,680		60
No Workers	1/1/2024	9/30/2024	235			20	14,100		60
Workers	10/1/2024	10/31/2024	27	100	200	20	1,620		60
Workers	11/1/2024	11/30/2024	26	100	200	10	780		30
Workers	12/1/2024	12/31/2024	26	100	200	10			
Pool Area	11/2/2023	12/31/2024	365						
	11/2/2023	12/31/2023	51			20	2,550		50
	1/1/2024	10/31/2024	262			20	13,100		50
	11/1/2024	11/30/2024	26			10	650		25
	12/1/2024	12/31/2024	26			10			

Notes:

Source: Client Data Needs Responses, 2020.

Architectural Coating Area Calculations

CalEEMod assumes the total surface for architectural coating equals:	
Residential Coating Area	2.7 times the floor square footage 75% interior 25% exterior
Nonresidential Coating Area	2 times the square footage 75% interior 25% exterior
Parking Lot Coating Area	6% of the square footage 0% exterior for surface lot

Source: SCAQMD, CEQA Air Quality Handbook, (1993) A9-124.

South Plaza

		Nonresidential		
Land Use		Area (sf)	Interior (sf)	Exterior (sf)
Fields + Open Space	City Park		-	-
Multi Purpose Gym + Locker Rooms	Health Club	91,954	137,931	45,977
Sheds + Storage + Water Storage Tanks	Unrefrigerated Warehouse-No Rail	25,420	38,130	12,710
Swimming Pool	Recreational Swimming Pool		-	-
Tennis Courts + Pool Deck and Bleacher	Other Non-Asphalt Surface	140,064	210,095	70,032
Security Kiosk	General Office	180	270	90
Total Nonresidential			386,426	128,809

		Parking		
Land Use		Area (sf)	Interior (sf)	Exterior (sf)
Enclosed Parking with Elevator		223,580	13,415	
Parking Lot and roundabout and vehicle entry way		37,026	2,222	
			15,636	

Harvard Westlake
Air Quality and Greenhouse Gas Assessment

Demolition Schedule		Notes
Demolition Quantities		
Hardscape Demolition Volume		Unit
Hardscape	187,684	sf Data Needs
Debris weight (lb):Volume (CY) ²	2,400	
Debris Volume (CY)	10,368	Data Needs
Tons of Debris	12,442	
Building Demolition Volume		Notes
Total Area (KSF)	1.000	Data Needs Sheet
Debris Volume (CY)	222	Data Needs Sheet
Tons of Debris ¹	111	
Total Cubic Yards	10,590	Data Needs Sheet
Total Tons of Debris	12,553	<----- ENTER VALUE INTO CALEEMOD
Truck Size (CY)	7	From data needs sheet
Total Trucks	1,513	
Demolition Work Days	53	
Max Trucks/Day	75	
Max Truck Trips/Day	150	Data Needs Sheet
Average Trucks/day	29	
Average Truck Trips/day	58	
Total One-Way Trips	3,026	<----- ENTER VALUE INTO CALEEMOD
Days of Hauling	21	
Distance to disposal	32.00 mi	Irwindale based on construction info questions. 10.21.20

Paving

Paving Amounts	Unit	Notes
Total Paving Acres	0.85 acres	from data needs sheet
Daily Truck Trips for Paving (In/Out) per day	10	from data needs sheet

Notes:

1 CalEEMod User Guide Appendix A pg 13: 1 yd³ building waste = 0.5 ton

2 [CalRecycle Weights and Volumes](#)

Off-Road Heavy-Duty Construction Equipment - Maximum Month

Construction Phase	Heavy-Duty Equipment	No. of Heavy-Duty Equipment	No. of hours/day	Hours of Operation/Week Per Equipment	Emissions Tier Rating (After Mitigation if needed)	Notes/Comments
Demolition	Air Compressors	1	8	48	Tier 4	Modeled outside of CalEEMod Assumed to be powered by air compressor Water Trucks
	Tractors/Loaders/Backhoes	5	8	48	Tier 4	
	Concrete/Industrial Saws	2	8	48	Tier 4	
	Excavators	3	8	48	Tier 4	
	Haul Trucks	25	8	48	Tier 4	
	Jackhammers	2	8	48	Tier 4	
	Off-Highway Trucks	1	4.4	26.4	Tier 4	
	Rough Terrain Forklifts	2	8	48	Tier 4	
	Skid Steer Loaders	4	8	48	Tier 4	
	Sweepers/Scrubbers	1	8	48	Tier 4	
Site Preparation	Tractors/Loaders/Backhoes	4	8	48	Tier 4	Modeled outside of CalEEMod Water Trucks
	Excavators	1	8	48	Tier 4	
	Graders	1	8	48	Tier 4	
	Haul Trucks	17	8	48	Tier 4	
	Off-Highway Trucks	1	4.4	26.4	Tier 4	
	Scrapers	2	8	48	Tier 4	
	Skid Steer Loader	4	8	48	Tier 4	
	Trenchers	1	8	48	Tier 4	
Grading/Excavation	Tractors/Loaders/Backhoes	2	8	48	Tier 4	Modeled outside of CalEEMod Water Trucks
	Excavators	2	8	48	Tier 4	
	Haul Truck	60	8	48	Tier 4	
	Off-Highway Trucks	2	4.4	26.4	Tier 4	
	Sweepers/Scrubbers	1	8	48	Tier 4	
	Bore/Drill Rigs	2	8	48	Tier 4	
	Air Compressors	2	8	48	Tier 4	
	Pumps	2	8	48	Tier 4	
Utilities/Trenching	Air Compressors	1	8	48	Tier 4	Modeled outside of CalEEMod Water Trucks
	Tractors/Loaders/Backhoes	2	8	48	Tier 4	
	Plate Compactors	2	8	48	Tier 4	
	Dumpers/Tenders	3	8	48	Tier 4	
	Excavators	2	8	48	Tier 4	
	Haul Trucks	1	8	48	Tier 4	
	Off-Highway Trucks	2	4.4	26.4	Tier 4	
	Rough Terrain Forklifts	2	8	48	Tier 4	
	Rubber Tired Loaders	2	8	48	Tier 4	
	Skid Steer Loaders	4	8	48	Tier 4	
Sweepers/Scrubbers	1	8	48	Tier 4		
Foundations/Concrete Pour	Air Compressors	3	8	48	Tier 4	Modeled outside of CalEEMod Assumed to be powered by air compressor Water Trucks
	Tractors/Loaders/Backhoes	6	8	48	Tier 4	
	Bore/Drill Rigs	3	8	48	Tier 4	
	Plate Compactors	2	8	48	Tier 4	
	Cranes	2	8	48	Tier 4	
	Excavators	1	8	48	Tier 4	
	Haul Trucks	10	8	48	Tier 4	
	Jackhammers	1	8	48	Tier 4	
	Off-Highway Trucks	1	4.4	26.4	Tier 4	
	Pumps	3	8	48	Tier 4	
	Rough Terrain Forklifts	2	8	48	Tier 4	
	Skid Steer Loaders	4	8	48	Tier 4	
Building Construction	Air Compressors	1	8	48	Tier 4	
	Cement and Mortar Mixers	3	8	48	Tier 4	
	Cranes	1	8	48	Tier 4	
	Generator Sets	4	8	48	Tier 4	
	Rough Terrain Forklifts	2	8	48	Tier 4	
Architectural Coatings	Concrete/Industrial Saws	2	8	48	Tier 4	
	Forklifts	2	8	48	Tier 4	
	Rough Terrain Forklifts	3	8	48	Tier 4	
Pavings	Air Compressors	1	8	48	Tier 4	Modeled outside of CalEEMod
	Tractors/Loaders/Backhoes	2	8	48	Tier 4	
	Plate Compactors	1	8	48	Tier 4	
	Graders	1	8	48	Tier 4	
	Haul Trucks	5	8	48	Tier 4	
	Pavers	1	8	48	Tier 4	
	Paving Equipment	1	8	48	Tier 4	
	Pumps	1	8	48	Tier 4	
	Rollers	1	8	48	Tier 4	
	Sweepers/Scrubbers	1	8	48	Tier 4	
Landscape	Tractors/Loaders/Backhoes	5	8	48	Tier 4	Water Trucks
	Cement and Mortar Mixers	1	8	48	Tier 4	
	Cranes	2	8	48	Tier 4	
	Forklifts	1	8	48	Tier 4	
	Graders	1	8	48	Tier 4	
	Off-Highway Trucks	1	4.4	26.4	Tier 4	
	Rollers	2	8	48	Tier 4	
	Rough Terrain Forklifts	3	8	48	Tier 4	
	Rubber Tired Loaders	3	8	48	Tier 4	
	Skid Steer Loaders	7	8	48	Tier 4	
Trenchers	2	8	48	Tier 4		
Pool Area	Air Compressors	1	8	48	Tier 4	Water Trucks
	Tractors/Loaders/Backhoes	1	8	48	Tier 4	
	Cranes	1	8	48	Tier 4	
	Off-Highway Trucks	1	4.4	26.4	Tier 4	
	Pumps	1	8	48	Tier 4	
	Rough Terrain Forklifts	1	8	48	Tier 4	
	Skid Steer Loaders	1	8	48	Tier 4	
	Plate Compactors	1	8	48	Tier 4	

**Harvard Westlake
Air Quality and Greenhouse Gas Assessment**

Site Preparation

Earthwork	Amount	
Total Earthwork Removal Export (CY)	6532	<i>From data needs sheet</i>
Daily Earthwork Export (CY)	357	<i>From data needs sheet</i>
Capacity of Haul Trucks (CY)	7	<i>From data needs sheet</i>
Total Trucks	933	
Total Truck Trips	1866	
Max Daily Trucks	51	
Max Daily Truck Trips	102	<i>From data needs sheet</i>
Distance to Disposal Site	32.00	Irwindale based on construction info questions. 10.21.20
Days of Hauling	19	

**Harvard Westlake
Air Quality and Greenhouse Gas Assessment**

Grading Phase Soil Hauling Trips

Excavation Volume	Value	
Total Soil Exported (CY)	250,000	<i>From data needs sheet</i>
Total Trucks Needed	17,858	<i>From data needs sheet</i>
Total Truck Trips Needed	35,716	
Maximum Daily Haul Trucks	150	<i>From data needs sheet</i>
Maximum Daily Haul Truck Trips (In/Out)	300	<i>from updated schedule</i>
Capacity of Haul Trucks (CY)	14	<i>From data needs sheet</i>
Distance to Disposal Site	32.00	Irwindale based on construction info questions. 10.21.20

**Harvard Westlake
Air Quality and Greenhouse Gas Assessment**

Site Preparation

Earthwork	Amount	
Total Earthwork Removal Export (CY)	6532	<i>From data needs sheet</i>
Daily Earthwork Export (CY)	357	<i>From data needs sheet</i>
Capacity of Haul Trucks (CY)	7	<i>From data needs sheet</i>
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Distance to Disposal Site	32.00	Irwindale based on construction info questions. 10.21.20
Days of Hauling	19	

**Harvard Westlake
Air Quality and Greenhouse Gas Assessment**

Grading Phase Soil Hauling Trips

Excavation Volume	Value	
Total Soil Exported (CY)	250,000	<i>From data needs sheet</i>
Total Trucks Needed	17,858	<i>From data needs sheet</i>
Total Truck Trips Needed	35,716	
Maximum Daily Haul Trucks	150	<i>From data needs sheet</i>
Maximum Daily Haul Truck Trips (In/Out)	300	<i>from updated schedule</i>
Capacity of Haul Trucks (CY)	14	<i>From data needs sheet</i>
Distance to Disposal Site	32.00	Irwindale based on construction info questions. 10.21.20

Harvard Westlake

Air Quality and Greenhouse Gas Assessment

Title 24 Energy Savings Adjustment

Non-Residential

% savings over Title 24 (2019)

	% savings over Title 24 (2016)		
	Electricity	Lighting	NG
Non-Residential:	10.7%	0%	1%
0%	10.7%	0.0%	1.0%
5%	15.2%	5.0%	6.0%
10%	19.6%	10.0%	10.9%
15%	24.1%	15.0%	15.9%

Residential

% savings over Title 24 (2019)

	% savings over Title 24 (2016)		
	Electricity	Lighting	NG
Multi-Family without PV:	2%	0%	5%
0%	2.0%	0.0%	5.0%
5%	6.9%	5.0%	9.8%
10%	11.8%	10.0%	14.5%
15%	16.7%	15.0%	19.3%

Project Energy Use Factors Adjustment

Non-Residential % savings over Title 24 (2016) =

Residential % savings over Title 24 (2016) =

	Electricity	Lighting	NG
Non-Residential % savings over Title 24 (2016) =	10.7%	0.0%	1.0%
Residential % savings over Title 24 (2016) =	2.0%	0.0%	5.0%

	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
Title 24 (2016 - CalEEMod Default)					
Project Non-Residential Land Uses	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
City Park	-	-	-	-	-
Enclosed Parking Structure	3.92	-	1.75	-	-
General Office Building	4.60	4.62	3.77	10.02	0.39
Health Club	2.25	5.75	3.10	13.65	4.45
Other Non-Asphalt Surfaces	-	-	-	-	-
Parking Lot	-	-	0.35	-	-
Recreational Swimming Pool	-	-	-	-	4.45
Unrefrigerated Warehouse-No Rail	0.65	1.34	1.91	0.84	0.03
	-	-	-	-	-
Project Residential Land Uses					
N/A	-	-	-	-	-
N/A	-	-	-	-	-
Title 24 (2019)					
Project Non-Residential Land Uses	T24 Electricity	NT24 Electricity	Lighting Electricity	T24 NG	NT24 NG
City Park	-	-	-	-	-
Enclosed Parking Structure	3.50	-	1.75	-	-
General Office Building	4.11	4.62	3.77	9.92	0.39
Health Club	2.01	5.75	3.10	13.51	4.45
Other Non-Asphalt Surfaces	-	-	-	-	-
Parking Lot	-	-	0.35	-	-
Recreational Swimming Pool	-	-	-	-	4.45
Unrefrigerated Warehouse-No Rail	0.58	1.34	1.91	0.83	0.03
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
Project Residential Land Uses					
N/A	-	-	-	-	-
N/A	-	-	-	-	-

Sources:

California Emissions Estimator Model (CalEEMod), version 2016.3.2.

California Energy Commission, Impact Analysis, 2019 Update to the California Energy Efficiency Standards for Residential and Non-Residential Buildings, Section 1.2 (Non-Residential), Table 19 (Multi-Family without PV), June 29, 2018. Available:

https://ww2.energy.ca.gov/title24/2019standards/post_adoption/documents/2019_Impact_Analysis_Final_Report_2018-06-29.pdf. Accessed January 2020.

Harvard Westlake
Water Use
Existing Uses

Building Use	Sewage Generation (GPD/1,000 Gr SF)	Units	Quantity	Total Generation (GPM)		GPD	GPY
Field Buildings ¹	30	SF	3,900	0.09	Field Buildings1	129.6	47304
Parking Lot ²	20	SF	60,500	0.93	Parking Lot2	1339.2	488808
Club House ³ (to remain)	120	SF	2,700	0.25	Club House3	360	131400

Irrigation		11332488
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Project Uses

Building Use	Sewage Generation (GPD/1,000 Gr SF)	Units	Quantity	Total Generation (GPM)		GPD	GPY
Gymnasium ¹	200	SF	80,249	12.380	Gymnasium1	17827.2	6506928
Parking Structure ¹	20	SF	223,580	3.450	Parking Structure1	4968	1813320
Security Kiosk ³	30	SF	180	0.004	Security Kiosk3	5.76	2102.4
Locker Rooms ⁴	650	SF	9,323	4.670	Locker Rooms4	604.8	220752
Restrooms ⁵	250	SF	2,382	0.420	Restrooms5	72	26280
Field B Sheds ⁶	30	SF	2,420	0.050	Field B Sheds6	489.6	178704
Swimming Pool ⁷	Process Flow	-	1	0.340	Swimming Pool7	360	131400
Club House ⁹ (to remain)	120	SF	2,700	0.250	Club House9 (to remain)		
Total Estimated Proposed Domestic Water Consumption				21.560			
Existing Total Domestic Water Consumption⁸				1.27	Irrigation		3300000
Net Increase in Domestic Water Consumption				20.29			14,634,038

¹ Gymnasium (Multi-purpose Gymnasium (2-story with basement)) – Gymnasium: Basketball, Volleyball (k) 200/1,000 Gr SF

² Parking Structure (Below-Grade Parking 503 spaces) – Auto Parking (a) 20/1,000 Gr SF

³ Security Kiosk – Equipment Booth 30/1,000 Gr SF

⁴ Locker Rooms (Field A, Field B, & Pool Area) – Health Club/Spa (k) 650/1,000 Gr SF

⁵ Restrooms (Field A, Field B & Pool Area) – Laboratory: Commercial 250/1,000 Gr SF

⁶ Storage & Sheds (Field B Shed & Maintenance shed, Pool equipment storage) – Storage: Building/Warehouse 30/1,000 Gr SF

⁷ Swimming Pool (Fifty Meter Pool/Olympic Sized) – Swimming Pool (Commercial with backwash filters) Process Flow –the assumed daily water flow to not exceed 500 GPD.

⁸ Refer to table 1.

⁹ Club House to Remain (Visitor Center) – Office Building 120/1,000 Gr SF

Harvard Westlake Project

2. Air Quality and Greenhouse Gas Emissions Methodology

Harvard-Westlake River Park Project

2. Air Quality and GHG Methodology

1. Introduction

ESA conducted a comprehensive criteria pollutant and greenhouse gas (GHG) emissions analysis and report for the Harvard-Westlake River Park Project (Project) located at 4047, 4141, and 4155 N. Whittsett Avenue; 12506, 12600, and 12630 W. Valley Spring Lane, Studio City, CA 91604; and a portion of Assessor Parcel Number [APN] 2375-018-903 (Project Site). Emissions associated with construction and operation of the Project were quantified. This technical report describes the methodology used to estimate criteria pollutant and GHG emissions from the Project. Methodology for emissions reductions from Project Design Features (PDFs) and mitigation measures are also described herein.

2. Air Pollutant and GHG Emissions Methodology

This section describes the methodology used to calculate emissions resulting from Project construction and operational activities. These emissions were used to evaluate air quality and GHG impacts. Construction activities would generate emissions from heavy duty equipment usage and vehicle trips traveling to and from the Project Site. Long-term operational activities would generate criteria pollutants through vehicle trips, energy usage (natural gas), and area source emissions. In addition to the aforementioned operational sources, GHG emissions associated with electricity use, waste and wastewater conveyance, solid waste, and emergency generators are included in the GHG analysis.

a) Emission Inventories

(1) Construction

Project construction activities, including construction activities associated with the off-site improvements to the segment of Valleyheart Drive south of Los Angeles Fire Department Fire Station 78 and to portions of the Zev Greenway adjacent to the Project Site and the installation of an Americans with Disabilities Act (ADA)-compliant accessible pedestrian ramp leading to the Zev Greenway at Coldwater Canyon Avenue (Coldwater Canyon Avenue Riverwalk Path Ramp), that would have the potential to create regional air quality impacts include vehicle trips generated by construction workers, vendor trucks, concrete trucks and haul trucks traveling to and from the Project Site and building activities such as the application of paint and other surface coatings. The Project's daily regional criteria pollutant emissions during construction were estimated for the Project.

Project construction is estimated to start in 2022, but may commence at a later date. If this occurs, construction impacts would be lower than those analyzed below due to the use of a more energy-efficient and cleaner burning construction vehicle fleet mix, pursuant to State regulations that require vehicle fleet operators to phase-in less polluting heavy-duty equipment. As a result, should Project construction commence at a later date than analyzed herein, air pollutant and GHG emissions would be lower than the emission levels disclosed herein.

The Project's construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) software, version 2016.3.2, an emissions inventory software program recommended by the South Coast Air Quality Management District (SCAQMD). CalEEMod is based on outputs from the California Air Resources Board's (CARB) on-road vehicle Emissions FACTor (EMFAC) model and CARB's off-road emissions factor model (OFFROAD), which is used to calculate emissions from construction activities, including on- and off-road vehicles. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule based on information provided by the Project's representative. When information was unknown, CalEEMod defaults were used. Emissions from off-road equipment and off-road vehicles were estimated through CalEEMod, since CalEEMod is based on outputs from the CARB off-road emissions factor (OFFROAD) which is the emissions estimation model developed by CARB and used to calculate emissions from construction activities, including off-road vehicles. Worker trip, concrete truck, vendor truck and haul truck trip estimates were provided by the Project's construction representative. Emissions from worker trips, haul truck trips, concrete truck trips and vendor truck trips were estimated outside of CalEEMod to account for the ARB on-road vehicle emissions factor EMFAC2017 (EMFAC) model because it has not yet been incorporated in the current version of CalEEMod. Haul truck trip estimates were based on excavation volumes obtained from the Project's engineering representative and 7 cubic yard soil capacity haul trucks for demolition and site preparation phase and 14 cubic yard soil capacity haul trucks for the grading/excavation phase; cement truck trip estimates were based on the Project's engineering representative and 10 cubic yard concrete capacity concrete trucks. Emissions from haul trucks, vendor trucks and concrete trucks were also estimated outside of CalEEMod using EMFAC emission factors for haul, vendor and concrete trucks because CalEEMod assumes that the number of heavy-duty trucks input into the model occurs across the entire length of the applicable construction phases. However, since the applicable construction phases would not have the same number of haul trucks, vendor trucks, and concrete trucks on-site every day within each particular phase, the emissions calculations performed outside of CalEEMod are able to account for the varying maximum numbers of daily haul truck and concrete truck trips within each of the demolition, site preparation, grading/excavation, and foundations/concrete pour, landscape and pool/canopy/building phases. These values were applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. The Project would export approximately 250,000 cubic yards of soil, approximately 10,590 cubic yards of demolition debris (asphalt, earthwork, and general

construction debris) and approximately 6,532 cubic yards of site preparation debris (vegetation and minor earthwork). Emissions from these activities were estimated by construction phase. The maximum daily emissions estimated based on maximum construction activity conditions for heavy-duty off-road construction equipment and on-road mobile sources and do not represent the emissions that would occur every day during Project construction. The maximum daily emissions were compared to the SCAQMD daily regional thresholds of significance.

(a) *Emissions from Construction Equipment*

(i) *Criteria Pollutants*

Emissions of volatile organic compounds (VOCs), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), and respirable and fine particulate matter (PM₁₀ and PM_{2.5}) would result from the use of construction equipment such as bulldozers, wheeled loaders, and cranes. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Truck and construction equipment emissions will vary with engine model years in which newer equipment will emit fewer pollutants. As a conservative assumption, the CalEEMod model uses an emission rate for equipment and trucks which represents an average model year for available equipment within the basin. CalEEMod calculates the exhaust emissions based on CARB OFFROAD methodology using the equation presented below.

Construction Off-Road Equipment:

$$\text{Emissions}_{\text{Diesel}} [\text{g}] = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHP}_i \times \text{Load}_i \times \text{Activity}_i)$$

Where:

- EF_i = Emission factor from OFFROAD [g/bhp-hr]
- Pop_i = Population [quantity of same equipment type]
- AvgHP_i = Maximum rated average horsepower [hp]
- Load_i = Load Factor [dimensionless]
- Activity_i = Hours of operation [hours]
- i* = Equipment Type

The CalEEMod software provides options for specifying equipment, horsepower ratings, load factors, and operational hours per day. Construction equipment lists for each phase of construction activity were provided by the Applicant. Equipment operational hours were based on eight hours of usage per day to estimate the Project's maximum daily emissions.

CalEEMod incorporates methodologies to quantify construction-related fugitive dust emissions, which are based on methodologies from the United States Environmental Protection Agency (USEPA) Compilation of Air Pollutant Emission Factors, AP-42. Fugitive dust emissions from construction equipment were estimated within CalEEMod.

The amount of construction equipment used and the duration of construction activity could have a substantial effect upon the amount of construction emissions, concentrations and the resulting impacts occurring at any one time. As such, the emission forecasts provided reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner.

(ii) *GHG Emissions*

Construction of the Project would result in one-time GHG emissions of carbon dioxide (CO₂) and smaller amounts of methane (CH₄) and nitrous oxide (N₂O) from construction equipment. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road emissions factors using CalEEMod. The output values used in this analysis are adjusted to be Project-specific based on equipment types and the construction schedule. These values were then applied to the same construction equipment and phasing assumptions used in the criteria pollutant analysis to generate GHG emissions values for each construction year. Construction GHG emissions are generally calculated in CalEEMod as follows:

Construction Off-Road Equipment:

$$\text{Emissions}_{\text{Diesel}} [\text{MTCO}_2\text{e}] = \left(\sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHP}_i \times \text{Load}_i \times \text{Activity}_i) \right) \div 10^6$$

Where:

MTCO ₂ e	=	Metric tons of carbon dioxide equivalents
EF _i	=	Emission factor from OFFROAD [g/bhp-hr]
Pop _i	=	Population [quantity of same equipment type]
AvgHP _i	=	Maximum rated average horsepower [hp]
Load _i	=	Load Factor [dimensionless]
Activity _i	=	Hours of operation [hours]
10 ⁶	=	Conversion factor [g/MT]
<i>i</i>	=	Equipment Type

(b) *Emissions from On-Road Trips*

(i) *Criteria Pollutants*

Construction activities, including emissions for construction activities associated with the off-site improvements to the segment of Valleyheart Drive south of Los Angeles Fire Department Fire Station 78 and to portions of the Zev Greenway adjacent to the Project Site and the installation of an Americans with Disabilities Act (ADA)-compliant accessible pedestrian ramp leading to the Zev Greenway at Coldwater Canyon Avenue (Coldwater Canyon Avenue Riverwalk Path Ramp), would generate on-road vehicle exhaust emissions of VOCs, NO_x, CO, SO_x, PM10 and PM2.5, evaporative emissions of VOCs, and fugitive dust emissions of PM10 and PM2.5 from workers and vendors traveling to and from the Project Site, as well as haul trucks and concrete trucks for demolition debris hauling, soil hauling, and supplies/material transport. These emissions are based on the number of trips and vehicle miles traveled (VMT) along with emission factors from EMFAC.

Vehicle running emission factors for exhaust criteria pollutants and PM10 and PM2.5 emissions from tire wear, brake wear, and entrained road dust were obtained from EMFAC on a per VMT basis for each respective vehicle class from the Project's construction year and adjusted for unit conversions to derive emission factors in units of grams per VMT. The emissions from mobile sources were then calculated based on the trip rates, trip lengths, and the EMFAC running emission factors as follows:

Construction On-Road Trips:

$$\text{Emissions}_{\text{pollutant}} = \text{VMT} * \text{EF}_{\text{running,pollutant}}$$

Where:

$\text{Emissions}_{\text{pollutant}}$	=	emissions from vehicle running for each pollutant [g]
VMT	=	vehicle miles traveled [miles]
$\text{EF}_{\text{running,pollutant}}$	=	emission factor for running emissions [g/mile]

(ii) *GHG Emissions*

Construction of the Project would generate GHG emissions of CO₂ and lesser amounts of CH₄ and N₂O from workers and vendors traveling to and from the site, as well as haul trucks. The emissions are estimated using the emission factors generated from the EMFAC model, similar to the criteria pollutant analysis. The emissions from mobile sources were then calculated based on the trip rates, trip lengths, and the EMFAC running emission factors as follows.

Construction On-Road Trips:

$$\text{Emissions}_{\text{pollutant}} [\text{MTCO}_2\text{e}] = (\text{VMT} \times \text{EF}_{\text{running,pollutant}}) \div 10^6$$

Where:

VMT	=	vehicle miles traveled [miles]
$\text{EF}_{\text{running,pollutant}}$	=	emission factor for running emissions [g/mile]
10^6	=	Conversion factor [g/MT]

(c) *Emissions from Architectural Coatings*

VOC off-gassing emissions would result from the evaporation of solvents contained in architectural coatings that would be applied on buildings and other painted surfaces during Project construction. The CalEEMod software calculates the VOC evaporative emissions from application of residential and non-residential surface coatings using the following equation:

Construction Architectural Coating Emissions:

$$E_{AC} = \text{EF}_{AC} \times F \times A_{\text{paint}}$$

Where:

E	=	emissions [lb VOC]
EF	=	emission factor [lb/sqft]
A	=	building surface area [sqft].

The CalEEMod software assumes the total surface area for painting of buildings is equal to 2.7 times the floor square footage for residential and 2 times that for nonresidential building square footage. All of the land use information provided by a metric other than building square footage are converted in CalEEMod to square footage using CalEEMod conversions or user defined equivalence.

F	=	fraction of surface area [%].
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With respect to estimating interior and exterior surface coating, the CalEEMod methodology is based on SCAQMD methods used in their coating rules of 75% for the interior surfaces and 25% for the exterior shell.

The emission factor (EF) is based on the VOC content of the surface coatings, as specified in the Project's applicable local air quality management district or air pollution control district rules and is calculated estimated using the equation below:

Construction Surface Coating Emission Factor:

$$EF_{AC} = C_{voc} / 454[\text{g/lb}] \times 3.785[\text{L/Gal}]/180[\text{sqft}]$$

Where:

- EF = emission factor [lb/sqft]
- C = VOC content [g/L]. This varies by location and year

The emission factors for coating categories are calculated using the equation above based on default VOC content provided by the air districts or CARB's Statewide limits. For the Project, SCAQMD Rule 1113 regulates the VOC content for architectural coatings and was used in the analysis.

(d) *Emissions from Paving*

While there is no specific screen within CalEEMod associated with asphalt paving emissions, CalEEMod estimates VOC off-gassing emissions associated with asphalt paving of parking lots using the following equation:

Construction Paving Emissions:

$$E_{AP} = EF_{AP} \times A_{\text{Parking}}$$

Where:

- E = emissions [lb]
- EF = emission factor [lb/acre]. The default factor is 2.62 lb/acre.
- A = area of the parking lot [acre]

(2) Operations

(a) *Existing Project Site Emissions*

Existing operational emissions were estimated primarily using CalEEMod. For mobile sources, the vehicle trips and VMT were provided for the existing uses in the Project's Transportation Assessment.¹ Emission factors were obtained from EMFAC, which was run in the emissions mode (also referred to as the "Burden" mode) and used to generate Air Basin-specific vehicle fleet emission factors in units of grams or metric tons per mile. Mobile source emissions are the product of the estimated VMT and the EMFAC emission factors.

Emissions from on-site natural gas combustion were based on usage data from the California Energy Commission (CEC) *California Commercial End Use Survey* (CEUS),

¹ Fehr and Peers, Transportation Assessment for the Harvard-Westlake River Park Project, March 2021. Provided in Appendix L-1 of the Project's Draft EIR.

which lists energy demand by building type.² Since 1978, the CEC has established building energy efficiency standards, which are updated periodically. The CEUS provides data on a limited statewide basis for different climate zones. Because CalEEMod applies correction factors to account for compliance with recent updates to the Title 24 Building Energy Efficiency Standards, energy demand is adjusted to account for assumed compliance with older Title 24 Building Energy Efficiency Standards, based on available conversion data.³

Other sources of emissions from existing uses include equipment used to maintain landscaping, such as lawnmowers and trimmers. The CalEEMod software uses landscaping equipment emission factors from the CARB OFFROAD model and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.⁴ The CalEEMod software assumes that landscaping equipment operates for 250 days per year in the Air Basin. Fugitive VOC emissions are based on consumer product usage factors provided by the SCAQMD within CalEEMod and architectural coating emission factors based on SCAQMD Rule 1113.

(b) *Area Source Emissions*

(i) *Criteria Pollutants*

Area source emissions were calculated using CalEEMod default assumptions for the Project's recreational land uses. Area sources include hearths, consumer product use, architectural coatings, and landscape maintenance equipment. This does not include the emissions associated with natural gas usage in space heating, water heating, and stoves as these are calculated in the building energy use module.

Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings. SCAQMD did an evaluation of consumer product use compared to the total square footage of buildings using data from CARB consumer product Emission Inventory. To calculate the VOC emissions from consumer product use, the following equation was used in CalEEMod:

² California Energy Commission, California Commercial End-Use Survey, <http://capabilities.itron.com/CeusWeb/Chart.aspx>. Accessed December 2018.

³ California Air Resources Board, CalEEMod User's Guide, Appendix E, Section 5, October 2017. Available: http://www.aqmd.gov/docs/default-source/caleemod/06_appendix-e2016-3-2.pdf?sfvrsn=4. Accessed December 2020. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

⁴ California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, (6/13/2003), https://ww3.arb.ca.gov/msei/2001_residential_lawn_and_garden_changes_in_eqpt_pop_and_act.pdf. Accessed December 2020.

Consumer Products:

$$\text{Emissions} = \text{EF} \times \text{Building Area}$$

Where:

EF = pounds of VOC per building square foot per day

The factor is 2.04×10^{-5} lbs/sqft/day for SCAQMD areas.

Building Area = The total square footage of all buildings including residential square footage.

VOC off-gassing emissions from architectural coatings result from evaporation of solvents such as in paints and primers. The methodology for operations is the same as the construction methodology discussed above.

(ii) *GHG Emissions*

The emissions of GHGs associated with operational area sources under the Project are calculated using the CalEEMod software. The emissions for landscaping equipment are based on the size of the Project's hotel and restaurant land uses, the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted. Annual GHG emissions from landscaping equipment in units of MTCO_{2e} are generally calculated in CalEEMod as follows:

Landscaping Equipment:

$$\text{Annual Emissions [MTCO}_2\text{e]} = \left(\sum_i (\text{Units} \times \text{EF}_{\text{LE}} \times \text{A}_{\text{LE}} \times \text{GWP})_i \right) \div 10^6$$

Where:

Units = Number of land use units (same land use type) [1000 sqft]

EF_{LE} = GHG emission factor [grams (g)/1000 sqft/day]

A_{LE} = Landscaping equipment operating days per year [day/year]

GWP = Global warming potential [CO₂ = 1, CH₄ = 25, N₂O = 298]

10⁶ = Conversion factor [g/MT]

i = Summation index

CalEEMod uses landscaping equipment GHG emission factors from the CARB OFFROAD model and the CARB *Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment (6/13/2003)*.⁵ CalEEMod estimates that landscaping equipment operate for 250 days per year in the South Coast Air Basin.

⁵ California Air Resources Board, OFFROAD Modeling Change Technical Memo: Change in Population and Activity Factors for Lawn and Garden Equipment, June 13, 2003.

(c) *Energy Emissions (Electricity and Natural Gas)*

With regard to energy usage, the consumption of fossil fuels to generate electricity and to provide heating and hot water generates criteria pollutants. Future fuel consumption rates are estimated based on specific square footage of the recreational land uses, as well as predicted water supply needs of the Project. Energy usage (off-site electricity generation and on-site natural gas consumption) for the Project is calculated within CalEEMod using the California Energy Commission (CEC) Commercial End-Use Survey (CEUS) data set.⁶ This data set provides energy intensities of different land uses throughout the State and different climate zones. However, since the data from the CEUS is from 2002, the CalEEMod software incorporates correction factors to account for compliance with the Title 24 Building Standards Code.

With regard to energy demand, GHG emissions result from the consumption of fossil fuels to generate electricity and to provide heating and hot water. Emission factors for CO₂ due to electrical generation to serve the electrical demands of the Project were calculated for the Project Buildout Year of 2025 consistent with SB 100, which was adopted after the 2017 Scoping Plan and represents the State's most current Renewable Portfolio Standard (RPS) law and growth in electricity demand with an emission factor of 626.48 lbs/MWh for year 2025 scaled proportionately based on the future year renewable energy targets of 44 percent by 2024 and at least 52 percent by 2027, and includes all Project design features (see subsection IV.G.3.c), Project Design Features, of the Project's Draft EIR).

(i) *Electricity*

(a) *Criteria Pollutants*

Criteria pollutant emissions are not required to be estimated for electricity as it is not a source of Project criteria air pollutant emissions as defined by SCAQMD.⁷

(b) *GHG Emissions*

The generation of electricity in California is achieved through the combustion of fossil fuels, primarily natural gas, using steam boilers, internal combustion engines, and combustion turbines. A portion of the electricity in California is imported from outside the state and is derived from the combustion of coal and other non-gaseous fossil fuels. The combustion of fossil fuels to produce electricity results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. The electricity generation occurs off-site; therefore, electricity use results in GHG emissions that are considered to be indirect.

Emissions of GHGs associated with operation of the Project are based on the size of the recreational land uses, the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. This assessment also includes electricity-related GHG emissions from the parking lot, which

⁶ California Energy Commission, California Commercial End-Use Survey, October 2017.

⁷ SCAQMD, CEQA Air Quality Handbook, page 1-1, 1-2.

would include lighting electricity. Electricity from light poles and LED screens was the Project Site would include a total of 33 light poles, including the five relocated existing “golf ball” ornamental light fixtures. GHG emissions from electricity from lighting poles/fixtures was based on the Harvard-Westlake River Park Project Studio City, CA Lighting Technical Report provided by Musco Lighting and the Illuminance Calculations for the lighting poles/fixtures that provided the load in kilowatts (kW), annual electricity use was then calculated based on the estimated number of days the and assumed number of hours per day the lighting poles/fixtures were assumed to be operational. GHG emissions from electricity use from lighting poles/fixtures was then estimated based on the carbon intensity factors of LADWP electricity. In addition, LED screen electricity was estimated based on standard load in watts (W) of an LED screen, annual electricity use was then calculated based on the estimated number of days the and assumed number of hours per day the LED screens were assumed to be operational. Similarly, GHG emissions from electricity use from LED screens was then estimated based on the carbon intensity factors of LADWP electricity. Annual electricity GHG emissions in units of MTCO_{2e} are calculated as follows:

Electricity:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_E \times E_{F_E} \times \text{GWP})_i) \div 2204.62$$

Where:

- Units = Number of land use units (same type) [DU or 1000 sqft]
- D_E = Electrical demand factor [megawatt-hour] (MWh)/DU or 1000 sqft/year or light pole/LED screen]
- E_{F_E} = GHG emission factor [pounds per megawatt-hour (MWh)]
- GWP = Global warming potential [CO₂ = 1, CH₄ = 25, N₂O = 298]
- 2204.62 = Conversion factor [pounds/MT]
- i* = Summation index

(ii) *Natural Gas*

(a) *Criteria Pollutants*

Natural gas-related emissions of criteria pollutants associated with operation of the Project are based on the size of the recreational land uses, the natural gas demand factors for the land uses. Natural gas demand is based on data from the CEUS, which lists energy demand by building type.⁸ However, since the data from the CEUS is from 2002,

⁸ California Energy Commission, California Commercial End-Use Survey, <https://www.energy.ca.gov/data-reports/surveys/california-commercial-end-use-survey/2006-california-commercial-end-use-survey>. Accessed December 2020.

CalEEMod incorporates correction factors to account for compliance with the 2016 Title 24 Building Standards Code. Natural gas criteria pollutant emissions are calculated as follows:

Natural Gas:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_{\text{NG}} \times EF_{\text{NG}})_i)$$

Where:

Units	=	Number of land use units (same type) [DU or 1000 sqft]
D_{NG}	=	Natural gas combustion factor [MMBtu/DU or 1000 sqft/year]
EF_{NG}	=	GHG emission factor [pounds/MMBtu]

(b) GHG Emissions

Natural gas-related emissions of GHGs associated with operation of the Project are based on the size of the recreational land uses, the natural gas demand factors for the land uses, the GHG emission factors for the natural gas combustion, and the GWP values for the GHGs emitted. Annual natural gas GHG emissions in units of MTCO₂e are calculated as follows:

Natural Gas:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_{\text{NG}} \times EF_{\text{NG}} \times \text{GWP})_i) \div 2204.62$$

Where:

Units	=	Number of land use units (same type) [DU or 1000 sqft]
D_{NG}	=	Natural gas combustion factor [MMBtu/DU or 1000 sqft/year]
EF_{NG}	=	GHG emission factor [pounds/MMBtu]
GWP	=	Global warming potential [CO ₂ = 1, CH ₄ = 25, N ₂ O = 298]
2204.62	=	Conversion factor [pounds/MT]
i	=	Summation index

Natural gas demand is based on data from the CEUS, which lists energy demand by building type.⁹ However, since the data from the CEUS is from 2002, correction factors are applied to account for compliance with the updated 2019 Title 24 Building Standards Code. The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the Project were

⁹ California Energy Commission, California Commercial End-Use Survey, <https://www.energy.ca.gov/data-reports/surveys/california-commercial-end-use-survey/2006-california-commercial-end-use-survey>. Accessed December 2020.

obtained from the CalEEMod software, which provides statewide emission factors.¹⁰ The emissions of GHGs due to natural gas demand would be relatively steady for the years assessed.

The combustion of natural gas results in relatively equal amounts of GHG emissions per unit of gas combusted in the state. Emission factors for GHGs due to natural gas combustion to serve the heating and cooking demands of the Project were obtained from the CalEEMod software, which provides Statewide emission factors.¹¹ The emissions of GHGs due to natural gas demand would be relatively steady for the years assessed.

(d) *Mobile Source Emissions*

(i) *Mobile Source Emission Factors*

(a) *Criteria Pollutants*

The estimated vehicle trips and maximum daily VMT were provided for the Project uses in the Project's TA where the VMT analysis used the City's VMT analysis procedures and Transportation Assessment Guidelines.¹² The EMFAC model was run in the emissions mode (also referred to as the "Burden" mode) and used to generate Air District-specific vehicle fleet emission factors in units of grams or metric tons per mile. These emission factors were then applied to the daily VMT to obtain daily mobile source emissions.

The Project's annual VMT is based on the sum of the estimated daily VMT (365 days out of a year). Daily VMT for the educational facility component of the Project are provided in the TA prepared for the Project. The daily VMT for the community use component of the Project were based on trip generation estimates by Fehr and Peers and the average trip length (5.9 miles) estimated based on a weighted average trip length by zip code distribution to the Project Site, documented in the TA.

Emissions from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the Project Site. The emissions were calculated using a representative motor vehicle fleet mix for the Air District for the opening year of the Project. As discussed above, all vehicle types would visit the Project Site; therefore, the use of the motor vehicle fleet mix for the Air Basin is an appropriate modeling parameter. Mobile source emissions are estimated for calendar years 2025 corresponding to full Project buildout.

Modeling for the Project was conducted using the vehicle fleet mix for SCAMQD as provided in EMFAC. Mobile source emissions are generally calculated as follows:

¹⁰ California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed December 2020.

¹¹ California Air Pollution Control Officers Association, California Emissions Estimator Model, <http://www.caleemod.com/>. Accessed December 2020.

¹² Fehr and Peers, Transportation Assessment for the Harvard-Westlake River Park Project, March 2021. Provided in Appendix L-1 of the Project's Draft EIR.

Mobile Source:

$$\text{Emissions} = (\sum_i (\text{VMT} \times \text{EF})_i)$$

Where: VMT = Vehicle miles traveled
EF = EMFAC Fleet emissions factor [pounds per mile]
i = Summation index

(b) GHG Emissions

Similar to criteria pollutant analysis, operational mobile source GHG emissions associated with the Project uses were using the daily VMT for the educational facility component of the Project are provided in the TA prepared for the Project and daily VMT for the community use component of the Project were based on trip generation estimates by Fehr and Peers done outside of the TA.¹³ The emissions generated by the VMT were calculated using EMFAC. The trip lengths are based on the location and urbanization of the project area. The average trip length of each land use is the sum of the trip length of each trip type multiplied by the percentage of trip type.

Emissions of GHGs associated with mobile sources from operation of the Project are based on the estimated annual VMT the GHG emission factors for the mobile sources from EMFAC, and the GWP values for the GHGs emitted. The types of vehicles that would visit the site include all vehicle types including automobiles, light-duty trucks, delivery trucks, and waste haul trucks. Modeling for the Project was conducted using the vehicle fleet mix for SCAQMD as provided in EMFAC. Annual mobile source GHG emissions in units of MTCO_{2e} are generally calculated as follows:

Mobile:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{VMT} \times \text{EF} \times \text{GWP})_i) \div 2204.62$$

Where:

VMT = Annual vehicle miles traveled
EF = GHG emission factor [pounds per mile]
GWP = Global warming potential [CO₂ = 1, CH₄ = 25, N₂O = 298]
2204.62 = Conversion factor [pounds/MT]
i = Summation index

Emissions of GHGs from motor vehicles are dependent on model years and the specific types of vehicles that are used to travel to and from the Project Site. The emissions were calculated using a representative motor vehicle fleet mix for SCAQMD for the opening

¹³ Fehr and Peers, Transportation Assessment for the Harvard-Westlake River Park Project, March 2021. Provided in Appendix L-1 of the Project's Draft EIR.

year of the Project. As discussed above, all vehicle types would visit the Project Site; therefore, the use of the motor vehicle fleet mix for SCAQMD is an appropriate modeling parameter. The CO₂ and CH₄ mobile source emissions were added together, using the appropriate GWP values, to obtain emissions in units of MTCO_{2e} (emissions of N₂O are negligible and would not affect the total mobile source GHG emissions).

(e) *Solid Waste Emissions*

(i) *Criteria Pollutants*

Criteria pollutant emissions are not required to be estimated for solid waste as it is not a source of Project criteria air pollutant emissions as defined by SCAQMD.¹⁴

(ii) *GHG Emissions*

The Project would generate solid waste from day-to-day operational activities, which generally consists of product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the waste is diverted to waste recycling and reclamation facilities. Waste that is not diverted is usually sent to local landfills for disposal. Waste that is disposed in landfills results in GHG emissions of CO₂ and CH₄ from the decomposition of the waste that occurs over the span of many years.

Emissions of GHGs associated with solid waste disposal under the Project are calculated using the CalEEMod software. The emissions are based on the size of the recreational land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted. Annual waste disposal GHG emissions in units of MTCO_{2e} are generally calculated in CalEEMod as follows:

Solid Waste:

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_w \times \text{EF}_w \times \text{GWP})_i) \div 1.1023$$

Where:

Units	=	Number of land use units (same type) [DU or 1000 sqft]
D _w	=	Waste disposal rate [tons/DU or 1000 sqft/year]
EF _w	=	GHG emission factor [tons/ton waste]
GWP	=	Global warming potential [CO ₂ = 1, CH ₄ = 25, N ₂ O = 298]
1.1023	=	Conversion factor [tons/MT]
<i>i</i>	=	Summation index

¹⁴ SCAQMD, CEQA Air Quality Handbook, page 1-1, 1-2.

CalEEMod allows the input of several variables to quantify solid waste emissions. The model requires the amount of waste disposed, which is the product of the waste disposal rate times the land use units. The total amount of waste disposed was reduced by the diversion rate for the City of Los Angeles of 76 percent, according to the most recent data available.¹⁵ The GHG emission factors, particularly for CH₄, depend on characteristics of the landfill, such as the presence of a landfill gas capture system and subsequent flaring or energy recovery. The default values, as provided in CalEEMod, for landfill gas capture (e.g., no capture, flaring, energy recovery), which are Statewide averages, are used in this assessment.

(f) *Water Usage and Wastewater Generation Emissions*

(i) *Criteria Pollutants*

Criteria pollutant emissions are not required to be estimated for water usage and wastewater generation as it is not a source of Project criteria air pollutant emissions as defined by SCAQMD.¹⁶

(ii) *GHG Emissions*

Water and wastewater generated from the land uses under the Project would require energy to supply, distribute and treat. The combustion of fossil fuels to produce electricity results in GHG emissions of CO₂ and smaller amounts of CH₄ and N₂O. The electricity generation occurs off-site; therefore, the electricity use from water and wastewater results in GHG emissions that are considered to be indirect. Wastewater also results in emissions of GHGs from wastewater treatment systems (e.g., septic, aerobic, or lagoons) as well as from solids that are digested either through an anaerobic digester or with co-generation from combustion of digester gas.

The emissions of GHGs associated with wastewater treatment process emissions are also calculated using CalEEMod. The emissions are based on the type of treatment (e.g., aerobic, facultative lagoons, septic systems). The emissions are calculating using the default settings in CalEEMod for the type of wastewater treatment. Calculation formulas are described in detail in the *California Emissions Estimator Model User's Guide, Appendix A*.¹⁷ Annual water demand and wastewater GHG emissions due to electricity are generally calculated in CalEEMod as follows for indoor and outdoor water demand:

Water Supply, Treatment, and Distribution; Wastewater Treatment (electricity):

$$\text{Annual Emissions [MTCO}_2\text{e]} = (\sum_i (\text{Units} \times D_W \times (E_{lW} \div 1000) \times EF_W \times GWP)_i) \div 2204.62$$

Where:

¹⁵ City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, 2013.

¹⁶ SCAQMD, CEQA Air Quality Handbook, page 1-1, 1-2.

¹⁷ California Air Resources Board, CalEEMod User's Guide, October 2017.

Units	=	Number of land use units (same land use type) [1000 sqft]
D _w	=	Water demand factor [million gallons (Mgal)/1000 sqft/year]
El _w	=	Electricity intensity factor [kilowatt-hours (kWh)/Mgal]
1000	=	Conversion factor [kWh/MWh]
EF _w	=	GHG emission factor [pounds/MWh]
GWP	=	Global warming potential [CO ₂ = 1, CH ₄ = 25, N ₂ O = 298]
2204.62	=	Conversion factor [pounds/MT]
<i>i</i>	=	Summation index

The CEC’s estimate for energy intensity of the water use cycle in Southern California, as provided in the 2006 CEC report *Refining Estimates of Water-Related Energy Use in California*, is used to calculate the energy usage related to water supply, treatment, and distribution and wastewater treatment.¹⁸ The same electricity GHG emissions factors discussed in (c) *Energy Emissions* are used for water and wastewater energy usage.

As stated in the *User’s Guide*, the GHGs emitted from each type of wastewater treatment are based on the CARB’s *Local Government Operations Protocol (LGOP)*,¹⁹ which are in turn based on USEPA methodologies.²⁰ The default CalEEMod settings for wastewater treatment are: 10.33 percent septic tank, 87.46 percent aerobic, 2.21 percent facultative lagoons and 100 percent anaerobic combustion of gas.

b) Comparison of Project Characteristics to Applicable Plans and Policies

As shown in Table 1, *Comparison of Project Characteristics with Applicable Climate Change Scoping Plan Greenhouse Gas Reduction Strategies*, Table 2, *Comparison of Project Characteristics with Applicable SCAG 2016-2040 RTP/SCS and 2020-2045 RTP/SCS Actions and Strategies*²¹ and Table 3, *Comparison of Project Characteristics to Applicable City of Los Angeles Green New Deal GHG Emissions Goals and Actions* below, the Project’s GHG emissions were evaluated by comparing the Project to applicable GHG reduction strategies and local actions approved or adopted by CARB, SCAG, and the City.

¹⁸ California Energy Commission, *Refining Estimates of Water-Related Energy Use in California*, PIER Final Project Report, CEC-500-2006-118, 2006.

¹⁹ California Air Resources Board, *Local Government Operations Protocol*, Chapter 10: Wastewater Treatment Facilities, 2008.

²⁰ United States Environmental Protection Agency, *Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006*, Chapter 8: Waste, 2008.

²¹ As discussed in the 2020-2045 RTP/SCS, the actions and strategies included in the 2020-2045 RTP/SCS remain unchanged from those adopted in the 2012-2035 and 2016-2040 RTP/SCS.

**TABLE 1
PROJECT COMPLIANCE WITH APPLICABLE
2017 CLIMATE CHANGE SCOPING PLAN ACTIONS AND STRATEGIES**

Actions and Strategies	Responsible Party(ies)	Compliance Analysis
<p>Senate Bill 350 (SB 350): The Clean Energy and Pollution Reduction Act of 2015 increases the standards of the California Renewable Portfolio Standard (RPS) program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by 2030.^a</p> <p>Required measures include:</p> <ul style="list-style-type: none"> • Increase RPS to 50 percent of retail sales by 2030. • Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. • Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in IRPs to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs. 	<p>CPUC, CEC, CARB</p>	<p>Compliant. The Project would use electricity provided by LADWP, which is required to meet the energy performance standard of 50 percent renewable energy by 2030, along with applicable GHG emissions reductions planning targets in its Strategic Long-Term Resource Plan. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. In 2019, LADWP provided 34.1 percent from renewable sources, exceeding the required target 33 percent by 2020 established under previous legislation.^b</p> <p>As required under SB 350, doubling of the energy efficiency savings from final end uses of retail customers by 2030 would primarily rely on the existing suite of building energy efficiency standards under California Code of Regulations Title 24, Part 6 and utility-sponsored programs such as rebates for high-efficiency appliances, HVAC systems, and insulation. The Project would meet or exceed the applicable requirements of Title 24, Part 6, as well as the California Green Building Standards Code in Title 24, Part 11 as adopted and amended in the City of Los Angeles Green Building Code. The Project would further support this action and strategy by incorporating energy efficiency measures as outlined in the Project’s sustainability features in GHG-PDF-1.</p>
<p>Implement Mobile Source Strategy (Cleaner Technology and Fuels):</p> <ul style="list-style-type: none"> • At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025. • At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030. • Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars regulations. • Implementation of federal phase 2 standards for medium- and heavy-duty vehicles. • Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean 	<p>CARB, CalSTA, SGC, Caltrans, CEC, OPR, Local Agencies</p>	<p>Compliant. CARB approved the Advanced Clean Cars Program that includes Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years. While this action does not directly apply to individual projects, the standards would apply to all vehicles purchased or used by students, staff, faculty, and visitors to the Project. The Project would comply with CalGreen requirements regarding the number of EV Ready and EV</p>

TABLE 1
PROJECT COMPLIANCE WITH APPLICABLE
2017 CLIMATE CHANGE SCOPING PLAN ACTIONS AND STRATEGIES

transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_x standard.

- Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.
- Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document “Potential VMT Reduction Strategies for Discussion.”

Capable parking spaces to support ZEVs and PHEVs. As such, the Project would support compliance with this regulation.

The Advanced Clean Truck Regulation has two components, a manufacturer sales requirement and a reporting requirement. The manufacturer component of the regulation requires manufacturers that certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales. The reporting component of the regulation requires large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations.^c This would be applicable to occasional delivery trucks to the Project Site, which would be subject to this regulation, therefore the Project would benefit from these measures.

CARB is also developing the Innovative Clean Transit measure to encourage purchase of advanced technology buses such as alternative fueled or battery powered buses. This would allow fleets to phase in cleaner technology in the near future. CARB is also in the process of developing proposals for new approaches and strategies to achieve zero emission trucks under the Advanced Clean Local Trucks (Last Mile Delivery) Program.^d GHG emissions generated by transit trips by Project users, would be reduced under this regulation.

GHG emissions generated by Project-related passenger, truck, and bus vehicular travel would benefit from the above regulations and programs, and mobile source emissions generated by the Project would be reduced with implementation of standards under the Advanced Clean Cars Program, Advanced Clean Truck Regulation, and Innovative Clean Transit measure consistent with reduction of GHG emissions under SB 32. Mobile source GHG emissions provided in Table IV.G-7 of the Draft EIR conservatively do not specifically include the

TABLE 1
PROJECT COMPLIANCE WITH APPLICABLE
2017 CLIMATE CHANGE SCOPING PLAN ACTIONS AND STRATEGIES

numeric reduction in mobile source GHG emissions from the above regulations as the CalEEMod model, which was utilized in the Draft EIR, does not yet fully account for these regulation or programs. SB 375 requires SCAG to direct the development of the RTP/SCS for the region, which is discussed in the Draft EIR. The Project would incorporate physical and operational Project characteristics that would reduce vehicle trips and VMT and encourage alternative modes of transportation for spectators, visitors, students and employees. The Project would support reducing VMT given its location at an urban infill location with nearby access to public transportation within 0.25 miles of the Project Site. The Project Site is located near LADOT's Downtown Area Short Hop (DASH) Van Nuys/Studio City bus with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site, and the Los Angeles County Metropolitan Transit Authority (Metro) Local Line 167 with stops at Whitsett Avenue/Ventura Boulevard, 0.13 miles to the south of the Project Site. Other transit services include Metro Bus Rapid Transit (BRT) Line 750 and Local Line 150/240 bus Ventura Boulevard/Coldwater Canyon, which provide connections to the Metro B (Red) Line North Hollywood Station 2.25 miles to the east of the Project Site, which also serves the Metro G (Orange) Line. The Project would also reduce vehicle trips and VMT by implementing a shuttle system between the School's Upper Campus and the Project Site whenever there are School activities underway at the Project Site, in order to encourage efficient transportation and reduce VMT associated with the Project. To further reduce reliance on fossil fuels and transportation-related GHG emissions, the Project would designate a minimum of eight percent of on-site parking for carpool and/or alternative-fueled vehicles (33 spaces). The Project would also provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces (approximately 160 spaces), with 10 percent of the LAMC-required spaces further improved with electric vehicle charging stations (approximately 54 spaces). As such, the Project would not conflict with the VMT reduction standards of the 2020-2045 RTP/SCS. Thus, the Project would be compliant with, and would not conflict with,

TABLE 1
PROJECT COMPLIANCE WITH APPLICABLE
2017 CLIMATE CHANGE SCOPING PLAN ACTIONS AND STRATEGIES

		applicable 2020-2045 RTP/SCS actions and strategies to reduce GHG emissions.
Increase Stringency of SB 375 Sustainable Communities Strategy (2035 Targets).	CARB	Compliant. Under SB 375, CARB sets regional targets for GHG emission reductions from passenger vehicle use. In 2010, the CARB established targets for 2020 and 2035 for each region. As required under SB 375, the CARB is required to update regional GHG emissions targets every 8 years, which have been updated in 2018. As part of the 2018 updates, the CARB adopted a passenger vehicle related GHG reduction of 19 percent per capita for 2035 for the SCAG region. The Project would be consistent with SB 375 as it would be an infill development with various transit options. In addition, the Project would implement a shuttle system between the School's Upper Campus and the Project Site whenever there are School activities underway at the Project Site. The local and regional bus line services and the implementation of the shuttle system would encourage efficient transportation and reduce VMT associated with the Project. In addition, although the Project is not required to provide any bicycle parking spaces per the LAMC, the Project would also provide up to 100 on-site bicycle parking spaces. The Project would provide spectators, visitors, students and employees with the ability to access nearby public transit and opportunities for walking and biking, which would facilitate a reduction in VMT and related vehicular GHG emissions. As such, the Project would not conflict with the 2020-2045 RTP/SCS goal of reducing daily VMT per capita and providing local community serving uses in infill locations.
By 2019, adjust performance measures used to select and design transportation facilities.	CalSTA and SGC, OPR, CARB, GoBiz, IBank, DOF, CTC, Caltrans	Not Applicable. The Project would not involve construction of transportation facilities. However, the Project would implement a shuttle system between the School's Upper Campus and the Project Site whenever there are School activities underway at the Project Site, and would encourage bicycle use through the provision of racks, incentives for use of alternative travel modes, and parking for electric vehicles.
By 2019, develop pricing policies to support low-GHG transportation (e.g., low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR/SGC, CARB	Compliant. The Project would support this policy through compliance with CalGreen requirements regarding the number of EV Ready and EV Capable parking spaces. As such, the Project would support compliance with this regulation.

**TABLE 1
PROJECT COMPLIANCE WITH APPLICABLE
2017 CLIMATE CHANGE SCOPING PLAN ACTIONS AND STRATEGIES**

<p>Implement California Sustainable Freight Action Plan:</p> <ul style="list-style-type: none"> • Improve freight system efficiency. • Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030. 	<p>CalSTA, CalEPA, CNRA, CARB, CalTrans, CEC, GoBiz</p>	<p>Not Applicable. The Project land uses would not include freight transportation or warehousing. Therefore, the Project would not interfere or impede the implementation of the Sustainable Freight Action Plan.</p>
<p>Adopt a Low Carbon Fuel Standard with a CI reduction of 18 percent.</p>	<p>CARB</p>	<p>Compliant. This regulatory program applies to fuel suppliers, not directly to land use development. GHG emissions related to vehicular travel associated with the Project would benefit from this regulation because fuel used by Project-related vehicles would be required to comply with LCFS. Mobile source GHG emissions provided in Table IV.G-7 of the Draft EIR were calculated using CalEEMod. However, CalEEMod does not include implementation of the LCFS into mobile source emission factors. Thus, Table IV.G-7 provides conservatively estimated GHG emissions.</p> <p>On September 27, 2018, CARB approved an amendment to the LCFS regulation to require a 20 percent reduction in carbon intensity from a 2010 baseline by 2030. Reductions in carbon intensity are phased in starting in 2019 with a reduction of 6.25 percent and increases by 1.25 percent each year. Thus, in 2021, LCFS emissions reductions are 8.75 percent reduced carbon intensity relative to the 2010 baseline. Project-related mobile source GHG emissions would be reduced accordingly, and would increase as LCFS compliance increases to 20 percent reduce carbon intensity by 2030 relative to the 2010 baseline year.</p>
<p>Implement the Short-Lived Climate Pollutant Strategy by 2030:</p> <ul style="list-style-type: none"> • 40-percent reduction in methane and hydrofluorocarbon emissions below 2013 levels. • 50-percent reduction in black carbon emissions below 2013 levels. 	<p>CARB, CalRecycle, CDFA, SWRCB, Local air districts</p>	<p>Compliant. Senate Bill 605 (SB 605), adopted in 2014, directs CARB to develop a comprehensive Short-Lived Climate Pollutant (SLCP) strategy. Senate Bill 1383 was later adopted in 2016 to require CARB to set statewide 2030 emission reduction targets of 40 percent for methane and hydrofluorocarbons and 50 percent black carbon emissions below 2013 levels.^e</p> <p>SB 1383 requires various agencies including CARB, California Department of Food and Agriculture (CDFA), the State Water Resources</p>

**TABLE 1
PROJECT COMPLIANCE WITH APPLICABLE
2017 CLIMATE CHANGE SCOPING PLAN ACTIONS AND STRATEGIES**

		<p>Board (SWRCB) to be responsible for adopting regulations to reduce GHG emissions. These regulations would be applicable to the Project. Therefore, the Project would comply with the CARB SLCP Reduction Strategy, which limits the use of hydrofluorocarbons for refrigeration uses.</p>
<p>By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.</p>	<p>CARB, CalRecycle, CDFA, SWRCB, Local air districts</p>	<p>Compliant. Under SB 1383, the California Department of Resources Recycling and Recovery (CalRecycle) is responsible for achieving a 50 percent reduction in the level of statewide disposal of organic waste from the 2014 level by 2020 and 75-percent reduction by 2025. The Project would be consistent with AB 341 which requires not less than 75 percent of solid waste generated to be source reduced through recycling, composting, or diversion. This reduction in solid waste generated by the Project would reduce overall GHG emissions. Compliance with AB 341 would also help achieve the goals of SB 1383.</p>
<p>Implement the post-2020 Cap-and-Trade Program with declining annual caps.</p>	<p>CARB</p>	<p>Compliant. Assembly Bill 398 (AB 398) was enacted in 2017 to extend and clarify the role of the State's Cap-and-Trade Program from January 1, 2021, through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade program to establish updated protocols and allocation of proceeds to reduce GHG emissions. Under the Cap-and-Trade program, entities such as power generation companies and natural gas processing plants would be required to limit or reduce GHG emissions. While the Project itself is not a regulated entity under the Cap-and-Trade Program, it would result in a reduction of GHG emissions associated with the Project's energy usage, since energy supplied to the Project would be from a regulated entity. As the Project would not impede the Program's progress, the Project is considered compliant.</p>
<p>By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink:</p> <ul style="list-style-type: none"> • Protect land from conversion through conservation easements and other incentives. • Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity. 	<p>CNRA and departments within, CDFA, CalEPA, CARB</p>	<p>Not Applicable. This regulatory program applies to Natural and Working Lands, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Integrated Natural and Working Lands Implementation Plan.</p>

TABLE 1
PROJECT COMPLIANCE WITH APPLICABLE
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<ul style="list-style-type: none"> Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments. Establish scenario projections to serve as the foundation for the Implementation Plan. 		
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018.	CARB	Not Applicable. This regulatory program applies to Natural and Working Lands, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Integrated Natural and Working Lands Implementation Plan.
Implement Forest Carbon Plan.	CNRA, CAL FIRE, CalEPA and departments within	Not Applicable. This regulatory program applies to state and federal forest land, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	Not Applicable. Funding and financing mechanisms are the responsibility of the state and local agencies. The Project would not conflict with funding and financing mechanisms to support GHG reductions.

^a Senate Bill 350 (2015–2016 Regular Session) Stats 2015, Ch. 547.

^b LADWP, 2019 Power Content Label, Version October 2020, <https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-powercontentlabel>. Accessed May 18, 2021.

^c CARB, Advance Clean Cars, 2017 Midterm Review, <https://ww2.arb.ca.gov/resources/documents/2017-midterm-review-report>. Accessed May 18, 2021.

^d CARB, Advanced Clean Local Trucks, <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>. Accessed May 18, 2021.

^e CARB, Short-Lived Climate Pollutants (SLCP): Organic Waste Methane Emissions Reductions, <https://www.calrecycle.ca.gov/climate/slcp/>. Accessed May 18, 2021.

SOURCE: ESA, 2021.

TABLE 2
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040
RTP/SCS AND 2020-2045 RTP/SCS ACTIONS AND STRATEGIES

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
Land Use Actions and Strategies		
Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and Electric (and other alternative fuel) Vehicle Supply Equipment in public parking lots.	Local Jurisdictions, COGs, SCAG, CTCs	Would Not Conflict. This action applies to local jurisdictions, COGs, SCAG and County Transportation Commissions (CTCs). While the use of alternative-fueled vehicles is beyond the direct control or influence of the Project, the Project would encourage the use of alternative-fueled vehicles by designating a minimum of 8 percent of on-site non-residential parking for carpool and/or alternative-fueled vehicles. In addition, the Project design provides for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces, with 10 percent of the Code-required spaces further improved with electric vehicle charging stations.
Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.	Local Jurisdictions, SCAG	Would Not Conflict. While this action applies to local jurisdictions and SCAG, the Project would facilitate pedestrian and bicycle movements by providing access to and from on-site uses through a pedestrian/bicycle entrance provided off Whitsett Avenue near the north vehicle entrance driveway. Six additional exterior pedestrian entrance gates would be located along the Project Site perimeter. These include a pedestrian entry gate located at the corner of Whitsett Avenue and Valley Spring Lane; three pedestrian entry gates on Valley Spring Lane opposite Teesdale, Beeman, and Babcock Avenues, respectively; and one exterior pedestrian entrance gate to the site from the Zev Greenway. These eight pedestrian entry gates would allow members of the public to access the approximately seven acres of walking paths, wooded areas, and tennis courts (but would not provide direct access to the interior athletic facilities) (see Chapter II, <i>Project Description</i> , of the Draft EIR for additional details). The Project would locate recreational and restaurant uses on an infill Project Site located within a walkable area of Studio City with access to public transit. The Project would also provide 100

TABLE 2
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040
RTP/SCS AND 2020-2045 RTP/SCS ACTIONS AND STRATEGIES

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
Update local zoning codes, General Plans, and other regulatory policies to promote a more balanced mix of residential, commercial, industrial, recreational and institutional uses located to provide options and to contribute to the resiliency and vitality of neighborhoods and districts.	Local Jurisdictions	<p>bicycle parking spaces on-site to encourage utilization of alternative modes of transportation area.</p> <p>Would Not Conflict. While this action applies to local jurisdictions, the Project would support this action/strategy by creating a school and community serving recreational development comprising recreational and restaurant uses that offer employment and other community-serving opportunities. The Project supports the development of a balanced mixed of uses by co-locating complementary recreational and restaurant land uses on an infill Project Site that is in close proximity to existing off-site commercial and residential uses, being located within a quarter-mile of off-site commercial and residential uses, and located within an identified HQTa in a highly walkable area well served by public transportation. Several transit providers operate service within the immediate vicinity, including LADOT's DASH Van Nuys/Studio City bus, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site, and Whitsett/Ventura Boulevard, 0.13 miles to the south. Transit service also includes the Los Angeles County Metropolitan Transportation Authority's (Metro) Local Line 167, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site and at Whitsett Avenue/Ventura Boulevard, approximately 0.1 mile to the south. Transit service also includes Metro Bus Rapid Transit Line 750 and Local Lines 150/240 on Ventura Boulevard, which provide connection to the Metro B Line Universal City/Studio City Station, approximately 2.5 miles to the east. The Project Site is also 2.3 miles southwest of the Metro B Line North Hollywood Station, which also serves the Metro G Line.</p>
Support projects, programs, policies and regulations that encourage the development of complete communities, which includes a diversity of housing choices and educational opportunities, jobs for a variety of skills and education,	Local Jurisdictions, SCAG	<p>Would Not Conflict. While this action applies to local jurisdictions and SCAG, the Project supports the development of complete communities by co-locating complementary recreational and restaurant land uses within a quarter-mile of existing off-site commercial and residential uses, and</p>

TABLE 2
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040
RTP/SCS AND 2020-2045 RTP/SCS ACTIONS AND STRATEGIES

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
recreation and culture, and a full-range of shopping, entertainment and services all within a relatively short distance.		within an identified HQTAs in a walkable area served by transit. The increases in land use density and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.
Pursue joint development opportunities to encourage the development of housing and-mixed use projects around existing and planned rail stations or along high-frequency bus corridors, in transit-oriented development areas, and in neighborhood-serving commercial areas.	Local Jurisdictions, CTCs	Would Not Conflict. While this action applies to local jurisdictions and CTCs, the Project is a mixed use development on an infill site located within an identified HQTAs that is well served by public transportation. Several transit providers operate service within the immediate vicinity, including LADOT’s DASH Van Nuys/Studio City bus, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site, and Whitsett/Ventura Boulevard, 0.13 miles to the south. Transit service also includes the Los Angeles County Metropolitan Transportation Authority’s (Metro) Local Line 167, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site and at Whitsett Avenue/Ventura Boulevard, approximately 0.1 mile to the south. Transit service also includes Metro Bus Rapid Transit Line 750 and Local Lines 150/240 on Ventura Boulevard, which provide connection to the Metro B Line Universal City/Studio City Station, approximately 2.5 miles to the east. The Project Site is also 2.3 miles southwest of the Metro B Line North Hollywood Station, which also serves the Metro G Line.
Create incentives for local jurisdictions and agencies that support land use policies and housing options that achieve the goals of SB 375.	State, SCAG	Would Not Conflict. While this action applies to the State and SCAG, the Project would be consistent with and would not conflict with the goals of SB 375, including the goal to reduce VMT and the corresponding emission of GHGs through infill development. The Project is a recreational and restaurant land use development located on an urban infill Project Site within an identified HQTAs. It co-locates its complementary recreational and restaurant land uses, which are in close proximity to existing off-site commercial and

TABLE 2
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040
RTP/SCS AND 2020-2045 RTP/SCS ACTIONS AND STRATEGIES

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
		residential uses. The Project is also located in a highly walkable area served by transit within 1 mile of the Project Site. The increases in land use intensity and diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.
Transportation Network Actions and Strategies		
Collaborate with local jurisdictions to plan and develop residential and employment development around current and planned transit stations and neighborhood commercial centers.	SCAG, CTCs, Local Jurisdictions	Would Not Conflict. While this action applies to local jurisdictions, SCAG and CTCs, the Project’s mixed use development would intensify development in an area well served by public transportation. Several transit providers operate service within the immediate vicinity, including LADOT’s DASH Van Nuys/Studio City bus, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site, and Whitsett/Ventura Boulevard, 0.13 miles to the south. Transit service also includes the Los Angeles County Metropolitan Transportation Authority’s (Metro) Local Line 167, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site and at Whitsett Avenue/Ventura Boulevard, approximately 0.1 mile to the south. Transit service also includes Metro Bus Rapid Transit Line 750 and Local Lines 150/240 on Ventura Boulevard, which provide connection to the Metro B Line Universal City/Studio City Station, approximately 2.5 miles to the east. The Project Site is also 2.3 miles southwest of the Metro B Line North Hollywood Station, which also serves the Metro G Line. Furthermore, the Project would provide high-density recreational and restaurant uses in an area with access to a range of existing entertainment and commercial uses.
Transportation Demand Management (TDM) Actions and Strategies		
Support work-based programs that encourage emission reduction strategies and incentivize active	SCAG, Local Jurisdictions	Would Not Conflict. While this action applies to local jurisdictions and SCAG, and is not applicable to individual projects, would incorporate pedestrian pathways that

TABLE 2
COMPARISON OF PROJECT CHARACTERISTICS WITH APPLICABLE SCAG 2016-2040
RTP/SCS AND 2020-2045 RTP/SCS ACTIONS AND STRATEGIES

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
transportation commuting or ride-share modes.		connect to the existing sidewalk network, and would provide bicycle parking spaces and facilities.
Clean Vehicle Technology Actions and Strategies		
Support subregional strategies to develop infrastructure and supportive land uses to accelerate fleet conversion to electric or other near zero-emission technologies. The activities committed in the two subregions (Western Riverside COG and South Bay Cities COG) are put forward as best practices that others can adopt in the future.	SCAG, Local Jurisdictions	Would Not Conflict. While this action applies to local jurisdictions and SCAG, as discussed above, while directing the use of alternative-fueled vehicles is beyond the direct control or influence of individual projects, the Project would not interfere with the City’s or SCAG’s ability to encourage the use of alternative-fueled vehicles through various policies and programs. Specifically, the Project would support a land use pattern that provides increased opportunities to use alternative transportation modes by co-locating complementary recreational and restaurant land uses within a quarter-mile of existing off-site commercial and residential uses, and within an identified HQTAs in a walkable area served by transit. The Project would encourage the use of alternative-fueled vehicles by designating a minimum of 8 percent of on-site non-residential parking for carpool and/or alternative-fueled vehicles. In addition, the Project design will provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces, with 10 percent of the Code-required spaces further improved with electric vehicle charging stations.

SOURCE: ESA, 2020.

TABLE 3
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
Chapter 3: Local Water	
Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.	Would Not Conflict. While this action primarily applies to the City and LADWP and not to individual projects, the Project would meet this requirement as part of its compliance with the City’s requirements, and the CALGreen Code. In addition, as described in Section IV.O, <i>Utilities and Service Systems – Wastewater, Water Supply and Infrastructure, Solid Waste Regulations</i> , of the Project’s Draft EIR, the Project would provide sustainability features such as: the 1 million-gallon stormwater capture and reuse system that is expected to provide a minimum of one-third of the Project’s total annual irrigation demand; stormwater collection and treatment to collect rainwater and other urban runoff not only at the corner of Whitsett Avenue and Valley Spring Lane, but throughout the Project Site and proposed building roofs; rainwater from parking areas to drain to the landscape areas for storage; replacing the existing uses with new athletic and recreational facilities, including athletic fields utilizing artificial grass as a sustainable alternative to turf grass and reduction in water demand and avoid the use of pesticides; and maintaining approximately 41 percent of the Project Site as pervious areas to allow water to reach below the top surface condition and be reused, that would all reduce the Project’s water demand.
Chapter 4: Clean and Healthy Buildings	
Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 mBTU/sqft in 2015).	Would Not Conflict. While this action applies to City departments and not to private development, the Project is designed and would operate to meet or exceed the applicable requirements of the CALGreen Code and the Green Building Code. The Project would optimize building energy performance through GHG-PDF-1, where the Project will be designed to include 426 solar voltaic panels on roof of the gymnasium to reduce the amount of electricity drawn from City utilities. As a result, the Project would be consistent with and would not conflict with the City’s action to reduce energy use.
All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.	Would Not Conflict. The Project would comply with the State’s and City’s requirements that are designed to reduce GHG emissions over time, including the LA Green Building Code, Title 24, and other increasingly stringent energy conservation programs. In addition, The Project would help the City move toward a net zero carbon future.

TABLE 3
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
Chapter 5: Housing & Development	
Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.	Would Not Conflict. The Project would reduce VMT as a result of its urban infill location well served by public transportation. Several transit providers operate service within the immediate vicinity, including LADOT’s DASH Van Nuys/Studio City bus, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site, and Whitsett/Ventura Boulevard, 0.13 miles to the south. Transit service also includes the Los Angeles County Metropolitan Transportation Authority’s (Metro) Local Line 167, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site and at Whitsett Avenue/Ventura Boulevard, approximately 0.1 mile to the south. Transit service also includes Metro Bus Rapid Transit Line 750 and Local Lines 150/240 on Ventura Boulevard, which provide connection to the Metro B Line Universal City/Studio City Station, approximately 2.5 miles to the east. The Project Site is also 2.3 miles southwest of the Metro B Line North Hollywood Station, which also serves the Metro G Line.
Chapter 6: Mobility & Public Transit	
Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.	Would Not Conflict. The Project would facilitate pedestrian and bicycle movements by providing access to and from on-site uses where the primary pedestrian/bicycle entrance to the Project Site would be provided off Whitsett Avenue near the north vehicle entrance driveway. Six additional exterior pedestrian entrance gates would be located along the Project Site perimeter. These include a pedestrian entry gate located at the corner of Whitsett Avenue and Valley Spring Lane; three pedestrian entry gates on Valley Spring Lane opposite Teesdale, Beeman, and Babcock Avenues, respectively; and one exterior pedestrian entrance gate to the site from the Zev Greenway. These pedestrian entry gates would allow members of the public to access the approximately seven acres of walking paths, wooded areas, and tennis courts (but would not provide direct access to the interior athletic facilities). See Chapter II, <i>Project Description</i> , of the Draft EIR for additional details. The Project would locate residential, hotel, office, retail and restaurant uses on an infill Project Site located within a walkable area of Downtown Los Angeles with access to public transit and employment opportunities, restaurants and entertainment. The Project would utilize a shuttle system between the School’s Upper Campus and the Project Site whenever there are School activities underway at the Project Site, in order to encourage efficient transportation and reduce VMT associated with the Project. The Project would also provide 100 bicycle parking spaces on-site to encourage utilization of alternative modes of transportation area. Additionally, the Project would co-locate its complementary recreational and restaurant land uses, which are in close proximity to existing off-site commercial and residential uses. In

TABLE 3
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
	<p>addition, the Project Site well served by public transportation. Several transit providers operate service within the immediate vicinity, including LADOT’s DASH Van Nuys/Studio City bus, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site, and Whitsett/Ventura Boulevard, 0.13 miles to the south. Transit service also includes the Los Angeles County Metropolitan Transportation Authority’s (Metro) Local Line 167, with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site and at Whitsett Avenue/Ventura Boulevard, approximately 0.1 mile to the south. Transit service also includes Metro Bus Rapid Transit Line 750 and Local Lines 150/240 on Ventura Boulevard, which provide connection to the Metro B Line Universal City/Studio City Station, approximately 2.5 miles to the east. The Project Site is also 2.3 miles southwest of the Metro B Line North Hollywood Station, which also serves the Metro G Line.</p>
<p>Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.</p>	<p>Would Not Conflict. While this action applies to the City and not to individual projects, as indicated in the VMT analysis in Section IV.N, <i>Transportation</i>, of the Project’s Draft EIR, the results of the analysis show that the Project is projected to generate an estimated net decrease of 1,471 daily VMT. Therefore, it has been concluded that the Project would not cause significant VMT impacts as the Project would result in less than significant impacts on VMT since the Project would result in a decrease in VMT for the Project Site.</p>
<p>Chapter 7: Zero Emission Vehicles</p>	
<p>Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.</p>	<p>Would Not Conflict. While this action applies to the City and not to individual projects, the Project would designate a minimum of eight percent of on-site parking for carpool and/or alternative-fueled vehicles (approximately 43 spaces). In addition, the Project design provides for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations into a minimum of 30 percent of the parking spaces (approximately 160 spaces), with 10 percent of the Code-required spaces further improved with electric vehicle charging stations (approximately 53 spaces).</p>
<p>Chapter 9: Waste & Resource Recovery</p>	
<p>Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.</p>	<p>Would Not Conflict. While this action applies to the City and not to individual projects, the Project would be served by a solid waste collection and recycling service that may include mixed waste processing, and that yields waste diversion results comparable to source separation and consistent with and would not conflict with Citywide recycling targets.</p>
<p>Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a</p>	<p>Would Not Conflict. While this action applies to the City and not to individual projects, the Project would be served by a solid waste collection and recycling service which would participate in City trash services, including separating trash</p>

TABLE 3
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
baseline of 17.85 lbs. of waste generated per capita per day in 2011).	from recycling through the use of blue and green recycling bins provided by the Bureau of Sanitation.
Eliminate organic waste going to landfill by 2028.	Would Not Conflict. The Project consists recreational and athletic facility land uses, which would participate in City trash services, including the participation in the organic waste recycling program once the Citywide residential program is implemented.

Chapter 11: Urban Ecosystems & Resilience

Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.	<p>Would Not Conflict. While this action applies to the City in general, and not specifically to individual private development, the Project would implement an extensive tree and landscaping program that would remove 240 existing trees (including four which are deemed dead) and plant 393 new trees, resulting in a net increase of 33 percent. Approximately seven acres of the Project Site would be available as open space for public use and tennis recreation, daily from 7:00 a.m. to 9:00 p.m., including areas in which collected and treated stormwater and urban run-off would be used for bio-habitat water feature areas. An extensively planted, three-quarter mile long pedestrian path would be created to circumnavigate the perimeter of the Project Site, providing opportunities for cardiovascular exercise, shaded areas and bench seating for relaxation, bird watching, dog walking, and general enjoyment of the natural environment. The network of publicly-accessible pathways and landscaped areas would connect with the Zev Greenway via a new ADA-compliant ramp alongside the multipurpose gymnasium, and would allow visitors to stroll between the putting green, tennis courts, and a new overlook area to observe the Los Angeles River and waterfowl that frequent the waterway.</p> <p>The Project would be consistent with and would not conflict with the City’s goal to reduce the heat island effect, with measures such landscaped open space and the addition of canopy trees</p>
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Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.	<p>Would Not Conflict. The Project’s design includes approximately seven acres of the Project Site would be available as open space for public use and tennis recreation, daily from 7:00 a.m. to 9:00 p.m., including areas in which collected and treated stormwater and urban run-off would be used for bio-habitat water feature areas. An extensively planted, three-quarter mile long pedestrian path would be created to circumnavigate the perimeter of the Project Site, providing opportunities for cardiovascular exercise, shaded areas and bench seating for relaxation, bird watching, dog walking, and general enjoyment of the natural environment. The network of publicly-accessible pathways and landscaped areas would connect with the Zev Greenway via a new ADA-compliant ramp alongside the multipurpose gymnasium, and</p>
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TABLE 3
COMPARISON OF PROJECT CHARACTERISTICS TO APPLICABLE CITY OF LOS ANGELES
GREEN NEW DEAL GHG EMISSIONS GOALS AND ACTIONS

Target	Project Consistency
	<p>would allow visitors to stroll between the putting green, tennis courts, and a new overlook area to observe the Los Angeles River and waterfowl that frequent the waterway.</p> <p>The Project would support field, pool, and gym-based sports by pre-approved community groups or swim program members when not in use by the School, continued playing of tennis on eight courts, as well as regular access to 5.4 acres (235,224 square feet) of passive open space and a three-quarter mile long pedestrian path with a new connection to the Zev Greenway for casual exercise by individuals or families. The multi-purpose gymnasium would include a community room that could be used for meetings and gatherings by Studio City-based organizations. The School would make available such uses via a reservation system that would support an enjoyable and safe experience.</p> <p>To facilitate public uses of the Project Site, the School would preserve the existing clubhouse structure and café to function as a visitor center, where members of the public would check in for tennis court reservations, use of the putting green, and for other information. A staff person would be present in the clubhouse during business hours. As a result, the Project is consistent with and would not conflict with this City action.</p>

SOURCE: City of Los Angeles, L.A.'s Green New Deal (Sustainable City pLAn 2019), 2019; ESA, 2020.

In the latest State CEQA Guidelines amendments that went into effect on March 18, 2010, lead agencies are encouraged to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. As discussed in Section IV.G, *Greenhouse Gas Emissions*, of the Project's Draft EIR, the City has established goals and actions to reduce the emission of GHGs from both public and private activities in the L.A.'s Green New Deal (Sustainability pLAn 2019). While the City does not have a programmatic mitigation plan to tier from, such as a Greenhouse Gas Emissions Reduction Plan as recommended in the relevant amendments to the State CEQA Guidelines, the City has adopted the L.A.'s Green New Deal (Sustainability pLAn 2019) and LA Green Building Code, which encourage and require applicable projects to implement energy efficiency measures. In addition, the CCAT Report provides recommendations for specific emission reduction strategies for reducing GHG emissions and reaching the targets established in HSC Division 25.5 and Executive Order S-3-05. As previously stated, the City's the City has adopted the L.A.'s Green New Deal (Sustainability pLAn 2019) and LA Green Building Code, that have GHG reduction goals and actions that are relevant to the project's GHG sources. Thus, since the Project is designed in accordance with these policies and regulations as shown in Table 1, *Comparison of Project Characteristics with Applicable Climate Change Scoping Plan Greenhouse Gas Reduction Strategies*, Table 2,

Comparison of Project Characteristics with Applicable SCAG 2016-2040 RTP/SCS and 2020-2045 RTP/SCS Actions and Strategies and Table 3, Comparison of Project Characteristics to Applicable City of Los Angeles Green New Deal GHG Emissions Goals and Actions, it would result in a less than significant impact, because it would be consistent with the overarching State regulations on GHG reduction (HSC Division 25.5).

Harvard Westlake Project

3. Air Quality Worksheets

Air Quality Calculation Worksheets and Model Outputs

Harvard-Westlake River Park Project

3. Air Quality Worksheets

Air Quality Calculation Worksheets and Model Outputs

- 1. Modeling Assumptions and Emissions Modeling Inputs**
- 2. Emissions Modeling Outputs**
 - a) Construction**
 - (1) Unmitigated
 - (2) Mitigated
 - b) Operations**
 - (1) Unmitigated

1.a) Construction Modeling Outputs

- Emissions Summaries
- Unmitigated
- Mitigated

Harvard Westlake

Air Quality Construction Analysis - Unmitigated

Regional Maximums Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day					
3.2 Site Preparation-1 - 2022	2.5	45.1	31.8	0.1	4.8	1.8
3.3 Demolition - 2022	5.1	79.6	65.5	0.2	8.9	3.5
3.3 Demolition - 2022 (116 truck trips)	4.8	68.9	61.3	0.2	7.9	3.1
3.4 Grading - 2022	6.6	122.7	72.1	0.4	11.3	4.4
3.4 Grading - 2022 (150 truck trips)	4.9	75.1	53.6	0.2	6.8	2.9
3.4 Grading - 2023	5.4	100.4	71.5	0.4	11.0	4.1
3.4 Grading - 2023 (200 truck trips)	4.6	75.3	59.3	0.3	8.0	3.1
3.5 Foundations - 2022	5.5	51.4	63.5	0.1	4.6	2.8
3.5 Foundations - 2023	6.2	66.9	79.4	0.2	5.6	2.9
3.5 Foundations - 2023 (no trucks)	5.1	47.1	62.7	0.1	4.3	2.5
3.5 Foundations - 2023 (100 truck trips)	5.8	58.6	72.6	0.2	4.9	2.7
3.5 Foundations - 2023 (200 truck trips)	6.4	70.2	82.5	0.2	5.6	2.9
3.6 Utilities - 2023	3.0	27.5	35.5	0.1	1.9	1.3
3.6 Utilities - 2024	2.9	25.7	35.3	0.1	1.8	1.2
3.7 Building Construction - 2023	2.5	23.4	32.1	0.1	3.4	1.6
3.7 Building Construction - 2023 (no workers)	2	23	27	0	1	1
3.7 Building Construction - 2024	2.3	22.2	31.7	0.1	3.3	1.5
3.8 Site Preparation-2 - 2023	4.5	63.4	50.8	0.2	5.8	2.7
3.9 Landscape - 2023	5.3	59.5	56.8	0.1	2.7	2.2
3.9 Landscape - 2024	5.2	56.3	61.7	0.1	4.8	2.6
3.9 Landscape - 2024 (no workers)	5.1	56.0	56.6	0.1	2.5	2.0
3.9 Landscape - 2024 (reduced trucks)	5.0	52.2	58.2	0.1	4.5	2.6
3.10 Pool Area - 2023	2.0	21.5	21.9	0.1	1.1	0.7
3.10 Pool Area - 2024	1.9	20.6	21.9	0.1	1.0	0.7
3.10 Pool Area - 2024 (reduced trucks)	1.7	17.0	18.8	0.0	0.8	0.6
3.11 Architectural Coating - 2024	9.3	13.9	25.8	0.1	3.9	1.4
3.11 Architectural Coating - 2024 (reduced trucks)	9.3	12.5	24.7	0.1	3.7	1.3
3.12 Paving - 2024	2.0	18.7	23.9	0.0	1.5	1.0
Overlapping Phases						
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2024						
Demolition + Site Preparation-1 - 2022	7.6	124.7	97.4	0.4	13.8	5.3
Demolition (116 truck trips) + Grading (150 Trucks) - 2022	9.7	144.0	114.9	0.4	14.8	6.1
Grading (200 Truck Trips) + Utilities + Foundations (100 truck trips) - 2023	13.5	161.4	167.4	0.5	14.9	7.1
Site Preparation-2 + Utilities + Foundations (200 trucks) + Building Construction (no workers) -2023	16.3	184.1	195.4	0.5	14.4	7.8
Utilities + Foundations (200 trucks) + Building Construction (no workers) + Landscape - 2023	17.2	180.2	201.4	0.5	11.4	7.4
Utilities + Foundations (100 trucks) + Building Construction (no workers) + Landscape + Pool Area - 2023	18.5	190.1	213.4	0.5	11.8	7.9
Utilities + Building Construction + Landscape (no worker) + Pool Area + Architectural Coating - 2024	21.6	138.2	171.2	0.4	12.5	6.7
Landscape (reduced trucks) + Pool Area (reduced trucks) + Architectural Coating (reduced trucks) + Paving - 2024	18.2	103.9	128.7	0.3	10.8	5.5
Project Daily Maximum Emissions	21.58	190.15	213.42	0.53	14.90	7.88
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	Yes	No	No	No	No

Harvard Westlake

Summer

Air Quality Construction Analysis - Unmitigated

Summer Source	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day						lb/day					
3.2 Site Preparation-1 - 2022	1.29	12.54	16.83	0.03	0.86	0.58	1.19	32.54	15.01	0.12	3.97	1.23
3.3 Demolition - 2022	3.41	31.87	44.59	0.07	3.54	1.77	1.73	47.77	20.94	0.17	5.41	1.69
3.3 Demolition - 2022 (116 truck trips)	3.41	31.87	44.59	0.07	3.54	1.77	1.35	36.99	16.74	0.13	4.39	1.36
3.4 Grading - 2022	3.21	27.35	32.98	0.07	1.54	1.27	3.42	95.35	39.15	0.33	9.81	3.12
3.4 Grading - 2022 (150 truck trips)	3.21	27.35	32.98	0.07	1.54	1.27	1.73	47.75	20.63	0.17	5.30	1.66
3.4 Grading - 2023	3.01	24.86	32.86	0.07	1.38	1.12	2.41	75.53	38.62	0.31	9.62	2.93
3.4 Grading - 2023 (200 truck trips)	3.01	24.86	32.86	0.07	1.38	1.12	1.62	50.40	26.40	0.21	6.67	2.03
3.5 Foundations - 2022	5.36	50.92	57.43	0.12	2.33	2.21	0.12	0.44	6.05	0.02	2.25	0.60
3.5 Foundations - 2023	5.02	46.71	57.18	0.12	2.03	1.93	1.21	20.18	22.20	0.08	3.54	1.00
3.5 Foundations - 2023 (no trucks)	5.02	46.71	57.18	0.12	2.03	1.93	0.10	0.39	5.54	0.02	2.25	0.60
3.5 Foundations - 2023 (100 truck trips)	5.02	46.71	57.18	0.12	2.03	1.93	0.76	11.94	15.43	0.05	2.88	0.80
3.5 Foundations - 2023 (200 truck trips)	5.02	46.71	57.18	0.12	2.03	1.93	1.42	23.50	25.33	0.08	3.52	1.00
3.6 Utilities - 2023	2.99	27.00	33.24	0.07	1.10	1.03	0.06	0.54	2.26	0.01	0.83	0.22
3.6 Utilities - 2024	2.87	25.15	33.19	0.07	1.00	0.93	0.05	0.53	2.12	0.01	0.83	0.22
3.7 Building Construction - 2023	2.22	20.32	24.43	0.05	0.90	0.88	0.24	3.11	7.70	0.03	2.51	0.68
3.7 Building Construction - 2023 (no workers)	2.22	20.32	24.43	0.05	0.90	0.88	0.14	2.73	2.17	0.01	0.26	0.08
3.7 Building Construction - 2024	2.09	19.11	24.35	0.05	0.80	0.78	0.23	3.07	7.31	0.03	2.51	0.68
3.8 Site Preparation-2 - 2023	3.64	37.57	36.09	0.07	1.86	1.49	0.85	25.79	14.69	0.11	3.90	1.17
3.9 Landscape - 2023	4.87	51.15	49.76	0.10	2.23	2.05	0.47	8.30	7.02	0.02	0.51	0.16
3.9 Landscape - 2024	4.64	47.67	49.55	0.10	2.03	1.87	0.56	8.64	12.19	0.04	2.76	0.76
3.9 Landscape - 2024 (no workers)	4.64	47.67	49.55	0.10	2.03	1.87	0.47	8.30	7.05	0.02	0.51	0.16
3.9 Landscape - 2024 (reduced trucks)	4.64	47.67	49.55	0.10	2.03	1.87	0.32	4.49	8.66	0.03	2.50	0.68
3.10 Pool Area - 2023	1.57	14.32	15.90	0.03	0.62	0.59	0.40	7.14	6.03	0.02	0.45	0.14
3.10 Pool Area - 2024	1.50	13.41	15.82	0.03	0.55	0.53	0.40	7.14	6.06	0.02	0.45	0.14
3.10 Pool Area - 2024 (reduced trucks)	1.50	13.41	15.82	0.03	0.55	0.53	0.20	3.57	3.03	0.01	0.23	0.07
3.11 Architectural Coating - 2024	9.06	10.65	16.45	0.03	0.45	0.43	0.27	3.20	9.36	0.03	3.41	0.93
3.11 Architectural Coating - 2024 (reduced trucks)	9.06	10.65	16.45	0.03	0.45	0.43	0.20	1.84	8.28	0.03	3.27	0.88
3.12 Paving - 2024	1.98	17.88	21.70	0.04	0.81	0.76	0.07	0.80	2.20	0.01	0.74	0.20

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
3.2 Site Preparation-1 - 2022	2	45	32	0	5	2
3.3 Demolition - 2022	5	80	66	0	9	3
3.3 Demolition - 2022 (116 truck trips)	5	69	61	0	8	3
3.4 Grading - 2022	7	123	72	0	11	4
3.4 Grading - 2022 (150 truck trips)	5	75	54	0	7	3
3.4 Grading - 2023	5	100	71	0	11	4
3.4 Grading - 2023 (200 truck trips)	5	75	59	0	8	3
3.5 Foundations - 2022	5	51	63	0	5	3
3.5 Foundations - 2023	6	67	79	0	6	3
3.5 Foundations - 2023 (no trucks)	5	47	63	0	4	3
3.5 Foundations - 2023 (100 truck trips)	6	59	73	0	5	3
3.5 Foundations - 2023 (200 truck trips)	6	70	83	0	6	3
3.6 Utilities - 2023	3	28	36	0	2	1
3.6 Utilities - 2024	3	26	35	0	2	1
3.7 Building Construction - 2023	2	23	32	0	3	2
3.7 Building Construction - 2023 (no workers)	2	23	27	0	1	1
3.7 Building Construction - 2024	2	22	32	0	3	1
3.8 Site Preparation-2 - 2023	4	63	51	0	6	3
3.9 Landscape - 2023	5	59	57	0	3	2
3.9 Landscape - 2024	5	56	62	0	5	3
3.9 Landscape - 2024 (no workers)	5	56	57	0	3	2
3.9 Landscape - 2024 (reduced trucks)	5	52	58	0	5	3
3.10 Pool Area - 2023	2	21	22	0	1	1
3.10 Pool Area - 2024	2	21	22	0	1	1
3.10 Pool Area - 2024 (reduced trucks)	2	17	19	0	1	1
3.11 Architectural Coating - 2024	9	14	26	0	4	1
3.11 Architectural Coating - 2024 (reduced trucks)	9	12	25	0	4	1
3.12 Paving - 2024	2	19	24	0	2	1

Overlapping Phases						
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2024						
Demolition + Site Preparation-1 - 2022	8	125	97	0	14	5
Demolition (116 truck trips) + Grading (150 Trucks) - 2022	10	144	115	0	15	6
Grading (200 Truck Trips) + Utilities + Foundations (100 truck trips) - 2023	13	161	167	1	15	7
Site Preparation-2 + Utilities + Foundations (200 trucks) + Building Construction (no workers) - 2023	16	184	195	1	14	8
Utilities + Foundations (200 trucks) + Building Construction (no workers) + Landscape - 2023	17	180	201	0	11	7
Utilities + Foundations (100 trucks) + Building Construction (no workers) + Landscape + Pool Area - 2023	18	190	213	0	12	8
Utilities + Building Construction + Landscape (no worker) + Pool Area + Architectural Coating - 2024	22	138	171	0	13	7
Landscape (reduced trucks) + Pool Area (reduced trucks) + Architectural Coating (reduced trucks) + Paving - 2024	18	104	129	0	11	5
Project Daily Maximum Emissions	22	190	213	1	15	8

Harvard Westlake
 Winter
 Air Quality Construction Analysis - Unmitigated

Winter Source	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day						lb/day					
3.2 Site Preparation-1 - 2022	1.29	12.54	16.83	0.03	0.86	0.58	1.19	32.54	15.01	0.12	3.97	1.23
3.3 Demolition - 2022	3.41	31.87	44.59	0.07	3.54	1.77	1.73	47.77	20.94	0.17	5.41	1.69
3.3 Demolition - 2022 (116 truck trips)	3.41	31.87	44.59	0.07	3.54	1.77	1.35	36.99	16.74	0.13	4.39	1.36
3.4 Grading - 2022	3.21	27.35	32.98	0.07	1.54	1.27	3.42	95.35	39.15	0.33	9.81	3.12
3.4 Grading - 2022 (150 truck trips)	3.21	27.35	32.98	0.07	1.54	1.27	1.73	47.75	20.63	0.17	5.30	1.66
3.4 Grading - 2023	3.01	24.86	32.86	0.07	1.38	1.12	2.41	75.53	38.62	0.31	9.62	2.93
3.4 Grading - 2023 (200 truck trips)	3.01	24.86	32.86	0.07	1.38	1.12	1.62	50.40	26.40	0.21	6.67	2.03
3.5 Foundations - 2022	5.36	50.92	57.43	0.12	2.33	2.21	0.12	0.44	6.05	0.02	2.25	0.60
3.5 Foundations - 2023	5.02	46.71	57.18	0.12	2.03	1.93	1.21	20.18	22.20	0.08	3.54	1.00
3.5 Foundations - 2023 (no trucks)	5.02	46.71	57.18	0.12	2.03	1.93	0.10	0.39	5.54	0.02	2.25	0.60
3.5 Foundations - 2023 (100 truck trips)	5.02	46.71	57.18	0.12	2.03	1.93	0.76	11.94	15.43	0.05	2.88	0.80
3.5 Foundations - 2023 (200 truck trips)	5.02	46.71	57.18	0.12	2.03	1.93	1.42	23.50	25.33	0.08	3.52	1.00
3.6 Utilities - 2023	2.99	27.00	33.24	0.07	1.10	1.03	0.06	0.54	2.26	0.01	0.83	0.22
3.6 Utilities - 2024	2.87	25.15	33.19	0.07	0.998	0.93	0.05	0.53	2.12	0.01	0.83	0.22
3.7 Building Construction - 2023	2.22	20.32	24.43	0.05	0.90	0.88	0.24	3.11	7.70	0.03	2.51	0.68
3.7 Building Construction - 2023 (no workers)	2.22	20.32	24.43	0.05	0.90	0.88	0.14	2.73	2.17	0.01	0.26	0.08
3.7 Building Construction - 2024	2.09	19.11	24.35	0.05	0.80	0.78	0.23	3.07	7.31	0.03	2.51	0.68
3.8 Site Preparation-2 - 2023	3.64	37.57	36.09	0.07	1.86	1.49	0.85	25.79	14.69	0.11	3.90	1.17
3.9 Landscape - 2023	4.87	51.15	49.76	0.10	2.23	2.05	0.47	8.30	7.02	0.02	0.51	0.16
3.9 Landscape - 2024	4.64	47.67	49.55	0.10	2.03	1.87	0.56	8.64	12.19	0.04	2.76	0.76
3.9 Landscape - 2024 (no workers)	4.64	47.67	49.55	0.10	2.03	1.87	0.47	8.30	7.05	0.02	0.51	0.16
3.9 Landscape - 2024 (reduced trucks)	4.64	47.67	49.55	0.10	2.03	1.87	0.32	4.49	8.66	0.03	2.50	0.68
3.10 Pool Area - 2023	1.57	14.32	15.90	0.03	0.619	0.59	0.40	7.14	6.03	0.02	0.45	0.14
3.10 Pool Area - 2024	1.50	13.41	15.82	0.03	0.554	0.53	0.40	7.14	6.06	0.02	0.45	0.14
3.10 Pool Area - 2024 (reduced trucks)	1.50	13.41	15.82	0.03	0.55	0.53	0.20	3.57	3.03	0.01	0.23	0.07
3.11 Architectural Coating - 2024	9.06	10.65	16.45	0.03	0.447	0.43	0.27	3.20	9.36	0.03	3.41	0.93
3.11 Architectural Coating - 2024 (reduced trucks)	9.06	10.65	16.45	0.03	0.45	0.43	0.20	1.84	8.28	0.03	3.27	0.88
3.12 Paving - 2024	1.98	17.88	21.70	0.04	0.808	0.76	0.07	0.80	2.20	0.01	0.74	0.20
Regional Emissions												
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5						
3.2 Site Preparation-1 - 2022	2	45	32	0	5	2						
3.3 Demolition - 2022	5	80	66	0	9	3						
3.3 Demolition - 2022 (116 truck trips)	5	69	61	0	8	3						
3.4 Grading - 2022	7	123	72	0	11	4						
3.4 Grading - 2022 (150 truck trips)	5	75	54	0	7	3						
3.4 Grading - 2023	5	100	71	0	11	4						
3.4 Grading - 2023 (200 truck trips)	5	75	59	0	8	3						
3.5 Foundations - 2022	5	51	63	0	5	3						
3.5 Foundations - 2023	6	67	79	0	6	3						
3.5 Foundations - 2023 (no trucks)	5	47	63	0	4	3						
3.5 Foundations - 2023 (100 truck trips)	6	59	73	0	5	3						
3.5 Foundations - 2023 (200 truck trips)	6	70	83	0	6	3						
3.6 Utilities - 2023	3	28	36	0	2	1						
3.6 Utilities - 2024	3	26	35	0	2	1						
3.7 Building Construction - 2023	2	23	32	0	3	2						
3.7 Building Construction - 2023 (no workers)	2	23	27	0	1	1						
3.7 Building Construction - 2024	2	22	32	0	3	1						
3.8 Site Preparation-2 - 2023	4	63	51	0	6	3						
3.9 Landscape - 2024	5	56	62	0	5	3						
3.9 Landscape - 2024 (no workers)	5	56	57	0	3	2						
3.9 Landscape - 2024 (reduced trucks)	5	52	58	0	5	3						
3.10 Pool Area - 2024	2	21	22	0	1	1						
3.10 Pool Area - 2024 (reduced trucks)	2	17	19	0	1	1						
3.11 Architectural Coating - 2024	9	14	26	0	4	1						
3.11 Architectural Coating - 2024 (reduced trucks)	9	12	25	0	4	1						
3.12 Paving - 2024	2	19	24	0	2	1						
	0	0	0	0	0	0						
Overlapping Phases												
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5						
2024												
Demolition + Site Preparation-1 - 2022	7.6	124.7	97.4	0.4	13.8	5.3						
Demolition (116 truck trips) + Grading (150 Trucks) - 2022	9.7	144.0	114.9	0.4	14.8	6.1						
Grading (200 Truck Trips) + Utilities + Foundations (100 truck trips) - 2023	13.5	161.4	167.4	0.5	14.9	7.1						
Site Preparation-2 + Utilities + Foundations (200 trucks) + Building Construction (no workers) - 2023	16.3	184.1	195.4	0.5	14.4	7.8						
Utilities + Foundations (200 trucks) + Building Construction (no workers) + Landscape - 2023	17.2	180.2	201.4	0.5	11.4	7.4						
Utilities + Foundations (100 trucks) + Building Construction (no workers) + Landscape + Pool Area - 2023	18.5	190.1	213.4	0.5	11.8	7.9						
Utilities + Building Construction + Landscape (no worker) + Pool Area + Architectural Coating - 2024	21.6	138.2	171.2	0.4	12.5	6.7						
Landscape (reduced trucks) + Pool Area (reduced trucks) + Architectural Coating (reduced trucks) + Paving - 2024	18.2	103.9	128.7	0.3	10.8	5.5						
Project Daily Maximum Emissions	21.58	190.15	213.42	0.53	14.90	7.88						

Harvard Westlake

Air Quality Construction Analysis - Unmitigated

Localized Emissions Source	Onsite Emissions			Total PM2.5
	NOX	CO	Total PM10 lb/day	
3.2 Site Preparation-1 - 2022	12.54	16.83	0.86	0.58
3.3 Demolition - 2022	31.87	44.59	3.54	1.77
3.3 Demolition - 2022 (116 truck trips)	31.87	44.59	3.54	1.77
3.4 Grading - 2022	27.35	32.98	1.54	1.27
3.4 Grading - 2022 (150 truck trips)	27.35	32.98	1.54	1.27
3.4 Grading - 2023	24.86	32.86	1.38	1.12
3.4 Grading - 2023 (200 truck trips)	24.86	32.86	1.38	1.12
3.5 Foundations - 2022	50.92	57.43	2.33	2.21
3.5 Foundations - 2023	46.71	57.18	2.03	1.93
3.5 Foundations - 2023 (no trucks)	46.71	57.18	2.03	1.93
3.5 Foundations - 2023 (100 truck trips)	46.71	57.18	2.03	1.93
3.5 Foundations - 2023 (200 truck trips)	46.71	57.18	2.03	1.93
3.6 Utilities - 2023	27.00	33.24	1.10	1.03
3.6 Utilities - 2024	25.15	33.19	1.00	0.93
3.7 Building Construction - 2023	20.32	24.43	0.90	0.88
3.7 Building Construction - 2023 (no workers)	20.32	24.43	0.90	0.88
3.7 Building Construction - 2024	19.11	24.35	0.80	0.78
3.8 Site Preparation-2 - 2023	37.57	36.09	1.86	1.49
3.9 Landscape - 2023	51.15	49.76	2.23	2.05
3.9 Landscape - 2024	47.67	49.55	2.03	1.87
3.9 Landscape - 2024 (no workers)	51.15	49.76	2.23	2.05
3.9 Landscape - 2024 (reduced trucks)	51.15	49.76	2.23	2.05
3.10 Pool Area - 2023	14.32	15.90	0.62	0.59
3.10 Pool Area - 2024	13.41	15.82	0.55	0.53
3.10 Pool Area - 2024 (reduced trucks)	13.41	15.82	0.55	0.53
3.11 Architectural Coating - 2024	10.65	16.45	0.45	0.43
3.11 Architectural Coating - 2024 (reduced trucks)	10.65	16.45	0.45	0.43
3.12 Paving - 2024	17.88	21.70	0.81	0.76
Localized Emissions	NOX	CO	Total PM10	Total PM2.5
3.2 Site Preparation-1 - 2022	13	17	0.9	0.6
3.3 Demolition - 2022	32	45	4	2
3.3 Demolition - 2022 (116 truck trips)	32	45	4	2
3.4 Grading - 2022	27	33	2	1
3.4 Grading - 2022 (150 truck trips)	27	33	2	1
3.4 Grading - 2023	25	33	1	1
3.4 Grading - 2023 (200 truck trips)	25	33	1	1
3.5 Foundations - 2022	51	57	2	2
3.5 Foundations - 2023	47	57	2	2
3.5 Foundations - 2023 (no trucks)	47	57	2	2
3.5 Foundations - 2023 (100 truck trips)	47	57	2	2
3.5 Foundations - 2023 (200 truck trips)	47	57	2	2
3.6 Utilities - 2023	27	33	1	1
3.6 Utilities - 2024	25	33	1	1
3.7 Building Construction - 2023	20	24	1	1
3.7 Building Construction - 2023 (no workers)	20	24	1	1
3.8 Site Preparation-2 - 2023	38	36	2	1
3.9 Landscape - 2023	51	50	2	2
3.9 Landscape - 2024	48	50	2	2
3.9 Landscape - 2024 (reduced trucks)	51	50	2	2
3.10 Pool Area - 2023	14	16	1	1
3.10 Pool Area - 2024	13	16	1	1
3.10 Pool Area - 2024 (reduced trucks)	13	16	1	1
3.11 Architectural Coating - 2024	11	16	0	0
3.11 Architectural Coating - 2024 (reduced trucks)	11	16	0	0
3.12 Paving - 2024	18	22	1	1
Overlapping Phases				
	NOX	CO	Total PM10	Total PM2.5
2024				
Demolition + Site Preparation-1 - 2022	44	61	4	2
Demolition (116 truck trips) + Grading (150 Trucks) - 2022	59	78	5	3
Grading (200 Truck Trips) + Utilities + Foundations (100 truck trips) - 2023	99	123	5	4
Site Preparation-2 + Utilities + Foundations (200 trucks) + Building Construction (no workers) -2023	132	151	6	5
Utilities + Foundations (200 trucks) + Building Construction (no workers) + Landscape - 2023	145	165	6	6
Utilities + Foundations (100 trucks) + Building Construction (no workers) + Landscape + Pool Area - 2023	159	180	7	6
Utilities + Building Construction + Landscape (no worker) + Pool Area + Architectural Coating - 2024	119	140	5	5
Landscape (reduced trucks) + Pool Area (reduced trucks) + Architectural Coating (reduced trucks) + Paving - 2024	93	104	4	4
Project Daily Maximum Emissions	159	180	7	6
SCAQMD Regional Significance Threshold	172	1434	14.0	8.0
Exceeds Threshold?	No	No	No	No

Harvard Westlake

Air Quality Construction Analysis -Coldwater Canyon Avenue Riverwalk Path Ramp-Unmitigated

Localized Emissions Source	Onsite Emissions			Total PM2.5
	NOX	CO	Total PM10 lb/day	
3.2 Building Construction - 2022	5.47	6.67	0.29	0.29
Project Daily Maximum Emissions	5	7	0.3	0.3
SCAQMD Regional Significance Threshold	51	250	1.40	1.40
Exceeds Threshold?	No	No	No	No

Harvard Westlake

Air Quality Construction Analysis - Mitigated

Regional Maximums Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day					
3.2 Site Preparation-1 - 2022	1.4	33.3	31.8	0.1	4.3	1.3
3.3 Demolition - 2022	2.4	52.7	66.9	0.2	7.5	2.1
3.3 Demolition - 2022 (116 truck trips)	2.1	42.9	63.7	0.2	6.5	1.8
3.4 Grading - 2022	3.7	91.8	73.0	0.4	10.1	3.3
3.4 Grading - 2022 (150 truck trips)	2.3	48.5	58.8	0.2	5.6	1.8
3.4 Grading - 2023	2.7	72.7	71.9	0.4	10.0	3.1
3.4 Grading - 2023 (200 truck trips)	2.1	50.2	62.8	0.3	7.0	2.2
3.5 Foundations - 2022	1.7	11.1	76.8	0.1	2.4	0.8
3.5 Foundations - 2023	2.8	30.9	92.9	0.2	3.7	1.2
3.5 Foundations - 2023 (no trucks)	1.7	11.1	76.2	0.1	2.4	0.8
3.5 Foundations - 2023 (100 truck trips)	2.3	22.6	86.1	0.2	3.1	1.0
3.5 Foundations - 2023 (200 truck trips)	3.0	34.2	96.0	0.2	3.7	1.2
3.6 Utilities - 2023	1.3	11.4	44.0	0.1	1.0	0.4
3.6 Utilities - 2024	1.3	11.4	43.9	0.1	1.0	0.4
3.7 Building Construction - 2023	0.9	6.2	35.1	0.1	2.6	0.8
3.7 Building Construction - 2023 (no workers)	0.8	5.8	29.6	0.1	0.4	0.2
3.7 Building Construction - 2024	0.9	6.2	34.7	0.1	2.6	0.8
3.8 Site Preparation-2 - 2023	1.6	31.2	53.6	0.2	4.3	1.3
3.9 Landscape - 2023	1.9	21.2	68.0	0.1	0.7	0.3
3.9 Landscape - 2024	2.0	21.6	73.2	0.1	2.9	0.9
3.9 Landscape - 2024 (no workers)	1.9	21.3	68.0	0.1	0.7	0.3
3.9 Landscape - 2024 (reduced trucks)	1.8	17.4	69.7	0.1	2.7	0.9
3.10 Pool Area - 2023	0.8	10.1	25.1	0.1	0.5	0.2
3.10 Pool Area - 2024	0.8	10.1	25.1	0.1	0.5	0.2
3.10 Pool Area - 2024 (reduced trucks)	0.6	6.5	22.1	0.0	0.3	0.1
3.11 Architectural Coating - 2024	8.5	4.5	27.2	0.1	3.4	1.0
3.11 Architectural Coating - 2024 (reduced trucks)	8.4	3.1	26.1	0.1	3.3	0.9
3.12 Paving - 2024	0.7	4.2	27.1	0.0	0.8	0.3
Overlapping Phases						
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2024						
Demolition + Site Preparation-1 - 2022	3.8	85.9	98.7	0.4	11.8	3.4
Demolition (116 truck trips) + Grading (150 Trucks) - 2022	4.4	91.3	122.5	0.4	12.1	3.6
Grading (200 Truck Trips) + Utilities + Foundations (100 truck trips) - 2023	5.7	84.2	192.9	0.5	11.1	3.6
Site Preparation-2 + Utilities + Foundations (200 trucks) + Building Construction (no workers) -2023	6.7	82.6	223.2	0.5	9.4	3.1
Utilities + Foundations (200 trucks) + Building Construction (no workers) + Landscape - 2023	6.9	72.6	237.6	0.5	5.8	2.1
Utilities + Foundations (100 trucks) + Building Construction (no workers) + Landscape + Pool Area - 2023	7.1	71.1	252.9	0.5	5.7	2.1
Utilities + Building Construction + Landscape (no worker) + Pool Area + Architectural Coating - 2024	13.4	53.3	199.0	0.4	8.3	2.7
Landscape (reduced trucks) + Pool Area (reduced trucks) + Architectural Coating (reduced trucks) + Paving - 2024	11.7	34.8	148.1	0.3	7.3	2.2
Project Daily Maximum Emissions	13.38	91.78	252.87	0.52	12.11	3.58
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Harvard Westlake

Summer

Air Quality Construction Analysis - Mitigated

Summer Source	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day						lb/day					
3.2 Site Preparation-1 - 2022	0.41	3.64	19.69	0.03	0.31	0.08	0.98	29.63	12.07	0.11	3.96	1.23
3.3 Demolition - 2022	0.98	9.19	50.30	0.07	2.09	0.41	1.42	43.49	16.61	0.16	5.41	1.69
3.3 Demolition - 2022 (116 truck trips)	0.98	9.19	50.30	0.07	2.09	0.41	1.11	33.67	13.39	0.13	4.38	1.36
3.4 Grading - 2022	0.89	5.00	42.54	0.07	0.35	0.14	2.79	86.78	30.50	0.31	9.80	3.11
3.4 Grading - 2022 (150 truck trips)	0.89	5.00	42.54	0.07	0.35	0.14	1.41	43.47	16.31	0.16	5.29	1.66
3.4 Grading - 2023	0.89	5.00	42.54	0.07	0.35	0.14	1.79	67.70	29.37	0.30	9.61	2.93
3.4 Grading - 2023 (200 truck trips)	0.89	5.00	42.54	0.07	0.35	0.14	1.20	45.18	20.23	0.20	6.67	2.02
3.5 Foundations - 2022	1.56	10.67	70.71	0.12	0.20	0.20	0.12	0.44	6.05	0.02	2.25	0.60
3.5 Foundations - 2023	1.56	10.67	70.71	0.12	0.20	0.20	1.21	20.18	22.20	0.08	3.54	1.00
3.5 Foundations - 2023 (no trucks)	1.56	10.67	70.71	0.12	0.20	0.20	0.10	0.39	5.54	0.02	2.25	0.60
3.5 Foundations - 2023 (100 truck trips)	1.56	10.67	70.71	0.12	0.20	0.20	0.76	11.94	15.43	0.05	2.88	0.80
3.5 Foundations - 2023 (200 truck trips)	1.56	10.67	70.71	0.12	0.20	0.20	1.42	23.50	25.33	0.08	3.52	1.00
3.6 Utilities - 2023	1.23	10.83	41.75	0.07	0.18	0.18	0.06	0.54	2.26	0.01	0.83	0.22
3.6 Utilities - 2024	1.23	10.83	41.75	0.07	0.18	0.18	0.05	0.53	2.12	0.01	0.83	0.22
3.7 Building Construction - 2023	0.63	3.09	27.41	0.05	0.10	0.10	0.24	3.11	7.70	0.03	2.51	0.68
3.7 Building Construction - 2023 (no workers)	0.63	3.09	27.41	0.05	0.10	0.10	0.14	2.73	2.17	0.01	0.26	0.08
3.7 Building Construction - 2024	0.63	3.09	27.41	0.05	0.10	0.10	0.23	3.07	7.31	0.03	2.51	0.68
3.8 Site Preparation-2 - 2023	1.00	8.11	42.01	0.07	0.39	0.15	0.64	23.13	11.54	0.11	3.90	1.17
3.9 Landscape - 2023	1.44	12.95	61.00	0.10	0.17	0.17	0.47	8.30	7.02	0.02	0.51	0.16
3.9 Landscape - 2024	1.44	12.95	61.00	0.10	0.17	0.17	0.56	8.64	12.19	0.04	2.76	0.76
3.9 Landscape - 2024 (no workers)	1.44	12.95	61.00	0.10	0.17	0.17	0.47	8.30	7.05	0.02	0.51	0.16
3.9 Landscape - 2024 (reduced trucks)	1.44	12.95	61.00	0.10	0.17	0.17	0.32	4.49	8.66	0.03	2.50	0.68
3.10 Pool Area - 2023	0.44	2.91	19.09	0.03	0.06	0.06	0.40	7.14	6.03	0.02	0.45	0.14
3.10 Pool Area - 2024	0.44	2.91	19.09	0.03	0.06	0.06	0.40	7.14	6.06	0.02	0.45	0.14
3.10 Pool Area - 2024 (reduced trucks)	0.44	2.91	19.09	0.03	0.06	0.06	0.20	3.57	3.03	0.01	0.23	0.07
3.11 Architectural Coating - 2024	8.23	1.26	17.87	0.03	0.04	0.04	0.27	3.20	9.36	0.03	3.41	0.93
3.11 Architectural Coating - 2024 (reduced trucks)	8.23	1.26	17.87	0.03	0.04	0.04	0.20	1.84	8.28	0.03	3.27	0.88
3.12 Paving - 2024	0.58	3.42	24.94	0.04	0.07	0.07	0.07	0.80	2.20	0.01	0.74	0.20

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
3.2 Site Preparation-1 - 2022	1	33	32	0	4	1
3.3 Demolition - 2022	2	53	67	0	7	2
3.3 Demolition - 2022 (116 truck trips)	2	43	64	0	6	2
3.4 Grading - 2022	4	92	73	0	10	3
3.4 Grading - 2022 (150 truck trips)	2	48	59	0	6	2
3.4 Grading - 2023	3	73	72	0	10	3
3.4 Grading - 2023 (200 truck trips)	2	50	63	0	7	2
3.5 Foundations - 2022	2	11	77	0	2	1
3.5 Foundations - 2023	3	31	93	0	4	1
3.5 Foundations - 2023 (no trucks)	2	11	76	0	2	1
3.5 Foundations - 2023 (100 truck trips)	2	23	86	0	3	1
3.5 Foundations - 2023 (200 truck trips)	3	34	96	0	4	1
3.6 Utilities - 2023	1	11	44	0	1	0
3.6 Utilities - 2024	1	11	44	0	1	0
3.7 Building Construction - 2023	1	6	35	0	3	1
3.7 Building Construction - 2023 (no workers)	1	6	30	0	0	0
3.7 Building Construction - 2024	1	6	35	0	3	1
3.8 Site Preparation-2 - 2023	2	31	54	0	4	1
3.9 Landscape - 2023	2	21	68	0	1	0
3.9 Landscape - 2024	2	22	73	0	3	1
3.9 Landscape - 2024 (no workers)	2	21	68	0	1	0
3.9 Landscape - 2024 (reduced trucks)	2	17	70	0	3	1
3.10 Pool Area - 2023	1	10	25	0	1	0
3.10 Pool Area - 2024	1	10	25	0	1	0
3.10 Pool Area - 2024 (reduced trucks)	1	6	22	0	0	0
3.11 Architectural Coating - 2024	8	4	27	0	3	1
3.11 Architectural Coating - 2024 (reduced trucks)	8	3	26	0	3	1
3.12 Paving - 2024	1	4	27	0	1	0

Overlapping Phases						
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2024						
Demolition + Site Preparation-1 - 2022	4	86	99	0	12	3
Demolition (116 truck trips) + Grading (150 Trucks) - 2022	4	91	123	0	12	4
Grading (200 Truck Trips) + Utilities + Foundations (100 truck trips) - 2023	6	84	193	1	11	4
Site Preparation-2 + Utilities + Foundations (200 trucks) + Building Construction (no workers) - 2023	7	83	223	1	9	3
Utilities + Foundations (200 trucks) + Building Construction (no workers) + Landscape - 2023	7	73	238	0	6	2
Utilities + Foundations (100 trucks) + Building Construction (no workers) + Landscape + Pool Area - 2023	7	71	253	0	6	2
Utilities + Building Construction + Landscape (no worker) + Pool Area + Architectural Coating - 2024	13	53	199	0	8	3
Landscape (reduced trucks) + Pool Area (reduced trucks) + Architectural Coating (reduced trucks) + Paving - 2024	12	35	148	0	7	2
Project Daily Maximum Emissions	13	92	253	1	12	4

Harvard Westlake
 Winter
 Air Quality Construction Analysis - Mitigated

Winter Source	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day						lb/day					
3.2 Site Preparation-1 - 2022	0.41	3.64	19.69	0.03	0.31	0.08	0.98	29.63	12.07	0.11	3.96	1.23
3.3 Demolition - 2022	0.98	9.19	50.30	0.07	2.09	0.41	1.42	43.49	16.61	0.16	5.41	1.69
3.3 Demolition - 2022 (116 truck trips)	0.98	9.19	50.30	0.07	2.09	0.41	1.11	33.67	13.39	0.13	4.38	1.36
3.4 Grading - 2022	0.89	5.00	42.54	0.07	0.35	0.14	2.79	86.78	30.50	0.31	9.80	3.11
3.4 Grading - 2022 (150 truck trips)	0.89	5.00	42.54	0.07	0.35	0.14	1.41	43.47	16.31	0.16	5.29	1.66
3.4 Grading - 2023	0.89	5.00	42.54	0.07	0.35	0.14	1.79	67.70	29.37	0.30	9.61	2.93
3.4 Grading - 2023 (200 truck trips)	0.89	5.00	42.54	0.07	0.35	0.14	1.20	45.18	20.23	0.20	6.67	2.02
3.5 Foundations - 2022	1.56	10.67	70.71	0.12	0.20	0.20	0.12	0.44	6.05	0.02	2.25	0.60
3.5 Foundations - 2023	1.56	10.67	70.71	0.12	0.20	0.20	1.21	20.18	22.20	0.08	3.54	1.00
3.5 Foundations - 2023 (no trucks)	1.56	10.67	70.71	0.12	0.20	0.20	0.10	0.39	5.54	0.02	2.25	0.60
3.5 Foundations - 2023 (100 truck trips)	1.56	10.67	70.71	0.12	0.20	0.20	0.76	11.94	15.43	0.05	2.88	0.80
3.5 Foundations - 2023 (200 truck trips)	1.56	10.67	70.71	0.12	0.20	0.20	1.42	23.50	25.33	0.08	3.52	1.00
3.6 Utilities - 2023	1.23	10.83	41.75	0.07	0.18	0.18	0.06	0.54	2.26	0.01	0.83	0.22
3.6 Utilities - 2024	1.23	10.83	41.75	0.07	0.177	0.18	0.05	0.53	2.12	0.01	0.83	0.22
3.7 Building Construction - 2023	0.63	3.09	27.41	0.05	0.10	0.10	0.24	3.11	7.70	0.03	2.51	0.68
3.7 Building Construction - 2023 (no workers)	0.63	3.09	27.41	0.05	0.10	0.10	0.14	2.73	2.17	0.01	0.26	0.08
3.7 Building Construction - 2024	0.63	3.09	27.41	0.05	0.10	0.10	0.23	3.07	7.31	0.03	2.51	0.68
3.8 Site Preparation-2 - 2023	1.00	8.11	42.01	0.07	0.39	0.15	0.64	23.13	11.54	0.11	3.90	1.17
3.9 Landscape - 2023	1.44	12.95	61.00	0.10	0.17	0.17	0.47	8.30	7.02	0.02	0.51	0.16
3.9 Landscape - 2024	1.44	12.95	61.00	0.10	0.17	0.17	0.56	8.64	12.19	0.04	2.76	0.76
3.9 Landscape - 2024 (no workers)	1.44	12.95	61.00	0.10	0.17	0.17	0.47	8.30	7.05	0.02	0.51	0.16
3.9 Landscape - 2024 (reduced trucks)	1.44	12.95	61.00	0.10	0.17	0.17	0.32	4.49	8.66	0.03	2.50	0.68
3.10 Pool Area - 2023	0.44	2.91	19.09	0.03	0.059	0.06	0.40	7.14	6.03	0.02	0.45	0.14
3.10 Pool Area - 2024	0.44	2.91	19.09	0.03	0.059	0.06	0.40	7.14	6.06	0.02	0.45	0.14
3.10 Pool Area - 2024 (reduced trucks)	0.44	2.91	19.09	0.03	0.06	0.06	0.20	3.57	3.03	0.01	0.23	0.07
3.11 Architectural Coating - 2024	8.23	1.26	17.87	0.03	0.039	0.04	0.27	3.20	9.36	0.03	3.41	0.93
3.11 Architectural Coating - 2024 (reduced trucks)	8.23	1.26	17.87	0.03	0.04	0.04	0.20	1.84	8.28	0.03	3.27	0.88
3.12 Paving - 2024	0.58	3.42	24.94	0.04	0.068	0.07	0.07	0.80	2.20	0.01	0.74	0.20

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
3.2 Site Preparation-1 - 2022	1	33	32	0	4	1
3.3 Demolition - 2022	2	53	67	0	7	2
3.3 Demolition - 2022 (116 truck trips)	2	43	64	0	6	2
3.4 Grading - 2022	4	92	73	0	10	3
3.4 Grading - 2022 (150 truck trips)	2	48	59	0	6	2
3.4 Grading - 2023	3	73	72	0	10	3
3.4 Grading - 2023 (200 truck trips)	2	50	63	0	7	2
3.5 Foundations - 2022	2	11	77	0	2	1
3.5 Foundations - 2023	3	31	93	0	4	1
3.5 Foundations - 2023 (no trucks)	2	11	76	0	2	1
3.5 Foundations - 2023 (100 truck trips)	2	23	86	0	3	1
3.5 Foundations - 2023 (200 truck trips)	3	34	96	0	4	1
3.6 Utilities - 2023	1	11	44	0	1	0
3.6 Utilities - 2024	1	11	44	0	1	0
3.7 Building Construction - 2023	1	6	35	0	3	1
3.7 Building Construction - 2023 (no workers)	1	6	30	0	0	0
3.7 Building Construction - 2024	1	6	35	0	3	1
3.8 Site Preparation-2 - 2023	2	31	54	0	4	1
3.9 Landscape - 2024	2	22	73	0	3	1
3.9 Landscape - 2024 (no workers)	2	21	68	0	1	0
3.9 Landscape - 2024 (reduced trucks)	2	17	70	0	3	1
3.10 Pool Area - 2024	1	10	25	0	1	0
3.10 Pool Area - 2024 (reduced trucks)	1	6	22	0	0	0
3.11 Architectural Coating - 2024	8	4	27	0	3	1
3.11 Architectural Coating - 2024 (reduced trucks)	8	3	26	0	3	1
3.12 Paving - 2024	1	4	27	0	1	0

Overlapping Phases						
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2024						
Demolition + Site Preparation-1 - 2022	3.8	85.9	98.7	0.4	11.8	3.4
Demolition (116 truck trips) + Grading (150 Trucks) - 2022	4.4	91.3	122.5	0.4	12.1	3.6
Grading (200 Truck Trips) + Utilities + Foundations (100 truck trips) - 2023	5.7	84.2	192.9	0.5	11.1	3.6
Site Preparation-2 + Utilities + Foundations (200 trucks) + Building Construction (no workers) - 2023	6.7	82.6	223.2	0.5	9.4	3.1
Utilities + Foundations (200 trucks) + Building Construction (no workers) + Landscape - 2023	6.9	72.6	237.6	0.5	5.8	2.1
Utilities + Foundations (100 trucks) + Building Construction (no workers) + Landscape + Pool Area - 2023	7.1	71.1	252.9	0.5	5.7	2.1
Utilities + Building Construction + Landscape (no worker) + Pool Area + Architectural Coating - 2024	13.4	53.3	199.0	0.4	8.3	2.7
Landscape (reduced trucks) + Pool Area (reduced trucks) + Architectural Coating (reduced trucks) + Paving - 2024	11.7	34.8	148.1	0.3	7.3	2.2
Project Daily Maximum Emissions	13.38	91.78	252.87	0.52	12.11	3.58

Harvard Westlake

Air Quality Construction Analysis - Mitigated

Localized Emissions Source	Onsite Emissions			
	NOX	CO	Total PM10 lb/day	Total PM2.5
3.2 Site Preparation-1 - 2022	3.64	19.69	0.31	0.08
3.3 Demolition - 2022	9.19	50.30	2.09	0.41
3.3 Demolition - 2022 (116 truck trips)	9.19	50.30	2.09	0.41
3.4 Grading - 2022	5.00	42.54	0.35	0.14
3.4 Grading - 2022 (150 truck trips)	5.00	42.54	0.35	0.14
3.4 Grading - 2023	5.00	42.54	0.35	0.14
3.4 Grading - 2023 (200 truck trips)	5.00	42.54	0.35	0.14
3.5 Foundations - 2022	10.67	70.71	0.20	0.20
3.5 Foundations - 2023	10.67	70.71	0.20	0.20
3.5 Foundations - 2023 (no trucks)	10.67	70.71	0.20	0.20
3.5 Foundations - 2023 (100 truck trips)	10.67	70.71	0.20	0.20
3.5 Foundations - 2023 (200 truck trips)	10.67	70.71	0.20	0.20
3.6 Utilities - 2023	10.83	41.75	0.18	0.18
3.6 Utilities - 2024	10.83	41.75	0.18	0.18
3.7 Building Construction - 2023	3.09	27.41	0.10	0.10
3.7 Building Construction - 2023 (no workers)	3.09	27.41	0.10	0.10
3.7 Building Construction - 2024	3.09	27.41	0.10	0.10
3.8 Site Preparation-2 - 2023	8.11	42.01	0.39	0.15
3.9 Landscape - 2023	12.95	61.00	0.17	0.17
3.9 Landscape - 2024	12.95	61.00	0.17	0.17
3.9 Landscape - 2024 (no workers)	12.95	61.00	0.17	0.17
3.9 Landscape - 2024 (reduced trucks)	12.95	61.00	0.17	0.17
3.10 Pool Area - 2023	2.91	19.09	0.06	0.06
3.10 Pool Area - 2024	2.91	19.09	0.06	0.06
3.10 Pool Area - 2024 (reduced trucks)	2.91	19.09	0.06	0.06
3.11 Architectural Coating - 2024	1.26	17.87	0.04	0.04
3.11 Architectural Coating - 2024 (reduced trucks)	1.26	17.87	0.04	0.04
3.12 Paving - 2024	3.42	24.94	0.07	0.07
Localized Emissions	NOX	CO	Total PM10	Total PM2.5
3.2 Site Preparation-1 - 2022	4	20	0.3	0.1
3.3 Demolition - 2022	9	50	2.1	0.4
3.3 Demolition - 2022 (116 truck trips)	9	50	2.1	0.4
3.4 Grading - 2022	5	43	0.3	0.1
3.4 Grading - 2022 (150 truck trips)	5	43	0.3	0.1
3.4 Grading - 2023	5	43	0.3	0.1
3.4 Grading - 2023 (200 truck trips)	5	43	0.3	0.1
3.5 Foundations - 2022	11	71	0.2	0.2
3.5 Foundations - 2023	11	71	0.2	0.2
3.5 Foundations - 2023 (no trucks)	11	71	0.2	0.2
3.5 Foundations - 2023 (100 truck trips)	11	71	0.2	0.2
3.5 Foundations - 2023 (200 truck trips)	11	71	0.2	0.2
3.6 Utilities - 2023	11	42	0.2	0.2
3.6 Utilities - 2024	11	42	0.2	0.2
3.7 Building Construction - 2023	3	27	0.1	0.1
3.7 Building Construction - 2023 (no workers)	3	27	0.1	0.1
3.8 Site Preparation-2 - 2023	8	42	0.4	0.1
3.9 Landscape - 2023	13	61	0.2	0.2
3.9 Landscape - 2024	13	61	0.2	0.2
3.9 Landscape - 2024 (reduced trucks)	13	61	0.2	0.2
3.10 Pool Area - 2023	3	19	0.1	0.1
3.10 Pool Area - 2024	3	19	0.1	0.1
3.10 Pool Area - 2024 (reduced trucks)	3	19	0.1	0.1
3.11 Architectural Coating - 2024	1	18	0.0	0.0
3.11 Architectural Coating - 2024 (reduced trucks)	1	18	0.0	0.0
3.12 Paving - 2024	3	25	0.1	0.1
Overlapping Phases				
	NOX	CO	Total PM10	Total PM2.5
2024				
Demolition + Site Preparation-1 - 2022	13	70	2	0
Demolition (116 truck trips) + Grading (150 Trucks) - 2022	14	93	2	1
Grading (200 Truck Trips) + Utilities + Foundations (100 truck trips) - 2023	26	155	1	1
Site Preparation-2 + Utilities + Foundations (200 trucks) + Building Construction (no workers) -2023	33	182	1	1
Utilities + Foundations (200 trucks) + Building Construction (no workers) + Landscape - 2023	38	201	1	1
Utilities + Foundations (100 trucks) + Building Construction (no workers) + Landscape + Pool Area - 2023	40	220	1	1
Utilities + Building Construction + Landscape (no worker) + Pool Area + Architectural Coating - 2024	31	167	1	1
Landscape (reduced trucks) + Pool Area (reduced trucks) + Architectural Coating (reduced trucks) + Paving - 2024	21	123	0	0
Project Daily Maximum Emissions	40	220	2.4	0.7
SCAQMD Regional Significance Threshold	172	1434	14.0	8.0
Exceeds Threshold?	No	No	No	No

Harvard Westlake

Air Quality Construction Analysis -Coldwater Canyon Avenue Riverwalk Path Ramp- Mitigated

Localized Emissions Source	Onsite Emissions			Total PM2.5
	NOX	CO	Total PM10 lb/day	
3.2 Building Construction - 2022	1.08	7.02	0.04	0.04
Project Daily Maximum Emissions	1.08	7.02	0.04	0.04
SCAQMD Regional Significance Threshold	51	250	1.4	1.4
Exceeds Threshold?	No	No	No	No

Harvard Westlake - Construction - South Coast AQMD Air District, Summer

Harvard Westlake - Construction
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking with Elevator	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - existing uses to remain not included modeling. See construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - construction mobile emissions calculated outside of CalEEMo.d

Demolition -

Grading - see construction assumptions

Architectural Coating - see construction assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	58,777.00	128,809.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	176,331.00	386,426.00
tblArchitecturalCoating	ConstArea_Parking	24,040.00	15,636.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	310.00
tblConstructionPhase	NumDays	300.00	312.00
tblConstructionPhase	NumDays	300.00	446.00
tblConstructionPhase	NumDays	300.00	392.00
tblConstructionPhase	NumDays	300.00	365.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	30.00	181.00
tblConstructionPhase	NumDays	20.00	28.00

tblConstructionPhase	NumDays	10.00	27.00
tblConstructionPhase	NumDays	10.00	26.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	0.00	75.00
tblGrading	AcresOfGrading	0.00	16.75
tblGrading	AcresOfGrading	65.00	16.75
tblGrading	MaterialExported	0.00	250,000.00
tblGrading	MaterialExported	0.00	6,532.00
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60
tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30
tblLandUse	LotAcreage	4.53	1.00
tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	817.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,241.00	0.00
tblTripsAndVMT	HaulingTripNumber	31,250.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	83.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	53.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation-1	Site Preparation	6/30/2022	7/31/2022	6	27	
2	Demolition	Demolition	7/1/2022	8/31/2022	6	53	
3	Grading	Grading	8/1/2022	2/27/2023	6	181	
4	Foundations	Building Construction	12/2/2022	11/30/2023	6	312	
5	Utilities	Trenching	2/2/2023	4/5/2024	6	368	
6	Building Construction	Building Construction	5/1/2023	10/1/2024	6	446	
7	Site Preparation-2	Site Preparation	9/1/2023	9/30/2023	6	26	
8	Landscape	Building Construction	10/2/2023	12/31/2024	6	392	
9	Pool Area	Building Construction	11/2/2023	12/31/2024	6	365	
10	Architectural Coating	Architectural Coating	1/2/2024	12/27/2024	6	310	
11	Paving	Paving	11/1/2024	12/3/2024	6	28	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 386,426; Non-Residential Outdoor: 128,809; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation-1	Excavators	1	8.00	158	0.38
Site Preparation-1	Graders	0	8.00	187	0.41
Site Preparation-1	Off-Highway Trucks	1	4.40	402	0.38
Site Preparation-1	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-1	Scrapers	0	8.00	367	0.48
Site Preparation-1	Skid Steer Loaders	2	8.00	65	0.37
Site Preparation-1	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Site Preparation-1	Trenchers	0	8.00	78	0.50
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	1	4.40	402	0.38
Demolition	Rough Terrain Forklifts	2	8.00	100	0.40
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Skid Steer Loaders	4	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Grading	Air Compressors	2	8.00	78	0.48
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Off-Highway Trucks	2	4.40	402	0.38
Grading	Plate Compactors	0	8.00	8	0.43
Grading	Pumps	2	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Skid Steer Loaders	0	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Foundations	Air Compressors	3	8.00	78	0.48
Foundations	Bore/Drill Rigs	3	8.00	221	0.50
Foundations	Cranes	2	8.00	231	0.29
Foundations	Excavators	1	8.00	158	0.38
Foundations	Forklifts	0	8.00	89	0.20
Foundations	Generator Sets	0	8.00	84	0.74
Foundations	Off-Highway Trucks	1	4.40	402	0.38
Foundations	Plate Compactors	2	8.00	8	0.43

Foundations	Pumps	3	8.00	84	0.74
Foundations	Rough Terrain Forklifts	2	8.00	100	0.40
Foundations	Skid Steer Loaders	4	8.00	65	0.37
Foundations	Sweepers/Scrubbers	0	8.00	64	0.46
Foundations	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Foundations	Welders	0	8.00	46	0.45
Utilities	Air Compressors	1	8.00	78	0.48
Utilities	Dumpers/Tenders	3	8.00	16	0.38
Utilities	Excavators	2	8.00	158	0.38
Utilities	Off-Highway Trucks	2	4.40	402	0.38
Utilities	Plate Compactors	2	8.00	8	0.43
Utilities	Rough Terrain Forklifts	2	8.00	100	0.40
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Utilities	Signal Boards	0	8.00	6	0.82
Utilities	Skid Steer Loaders	4	8.00	65	0.37
Utilities	Sweepers/Scrubbers	1	8.00	64	0.46
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	0	8.00	78	0.50
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Building Construction	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction	Skid Steer Loaders	0	8.00	65	0.37
Building Construction	Sweepers/Scrubbers	0	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Site Preparation-2	Excavators	1	8.00	158	0.38

Site Preparation-2	Graders	1	8.00	187	0.41
Site Preparation-2	Off-Highway Trucks	1	4.40	402	0.38
Site Preparation-2	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-2	Scrapers	2	8.00	367	0.48
Site Preparation-2	Skid Steer Loaders	4	8.00	65	0.37
Site Preparation-2	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation-2	Trenchers	1	8.00	78	0.50
Landscape	Cement and Mortar Mixers	1	8.00	9	0.56
Landscape	Cranes	2	8.00	231	0.29
Landscape	Forklifts	1	8.00	89	0.20
Landscape	Generator Sets	0	8.00	84	0.74
Landscape	Graders	1	8.00	187	0.41
Landscape	Off-Highway Trucks	1	4.40	402	0.38
Landscape	Rollers	2	8.00	80	0.38
Landscape	Rough Terrain Forklifts	3	8.00	100	0.40
Landscape	Rubber Tired Loaders	3	8.00	203	0.36
Landscape	Skid Steer Loaders	7	8.00	65	0.37
Landscape	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Landscape	Trenchers	2	8.00	78	0.50
Landscape	Welders	0	8.00	46	0.45
Pool Area	Air Compressors	1	8.00	78	0.48
Pool Area	Cement and Mortar Mixers	0	8.00	9	0.56
Pool Area	Concrete/Industrial Saws	0	8.00	81	0.73
Pool Area	Cranes	1	8.00	231	0.29
Pool Area	Forklifts	0	8.00	89	0.20
Pool Area	Generator Sets	0	8.00	84	0.74
Pool Area	Off-Highway Trucks	1	4.40	402	0.38
Pool Area	Other Construction Equipment	0	8.00	172	0.42
Pool Area	Plate Compactors	1	8.00	8	0.43
Pool Area	Pumps	1	8.00	84	0.74

Pool Area	Rough Terrain Forklifts	1	8.00	100	0.40
Pool Area	Rubber Tired Loaders	0	8.00	203	0.36
Pool Area	Skid Steer Loaders	1	8.00	65	0.37
Pool Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pool Area	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Concrete/Industrial Saws	2	8.00	81	0.73
Architectural Coating	Forklifts	2	8.00	89	0.20
Architectural Coating	Rough Terrain Forklifts	3	8.00	100	0.40
Paving	Air Compressors	1	8.00	78	0.48
Paving	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Pumps	1	8.00	84	0.74
Paving	Rollers	1	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation-1	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	19	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations	27	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	21	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation-2	14	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscape	28	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Pool Area	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation-1 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6853	0.0000	0.6853	0.0752	0.0000	0.0752			0.0000			0.0000
Off-Road	1.2911	12.5443	16.8286	0.0290		0.5957	0.5957		0.5480	0.5480		2,809.1955	2,809.1955	0.9086		2,831.9093
Total	1.2911	12.5443	16.8286	0.0290	0.6853	0.5957	1.2809	0.0752	0.5480	0.6232		2,809.1955	2,809.1955	0.9086		2,831.9093

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2673	0.0000	0.2673	0.0293	0.0000	0.0293			0.0000			0.0000
Off-Road	1.2911	12.5443	16.8286	0.0290		0.5957	0.5957		0.5480	0.5480	0.0000	2,809.1955	2,809.1955	0.9086		2,831.9093
Total	1.2911	12.5443	16.8286	0.0290	0.2673	0.5957	0.8629	0.0293	0.5480	0.5774	0.0000	2,809.1955	2,809.1955	0.9086		2,831.9093

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.3 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					5.0683	0.0000	5.0683	0.7674	0.0000	0.7674			0.0000				0.0000
Off-Road	3.4051	31.8748	44.5924	0.0725		1.5597	1.5597		1.4677	1.4677		6,985.5262	6,985.5262	1.8436			7,031.6168
Total	3.4051	31.8748	44.5924	0.0725	5.0683	1.5597	6.6280	0.7674	1.4677	2.2351		6,985.5262	6,985.5262	1.8436			7,031.6168

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9767	0.0000	1.9767	0.2993	0.0000	0.2993			0.0000			0.0000
Off-Road	3.4051	31.8748	44.5924	0.0725		1.5597	1.5597		1.4677	1.4677	0.0000	6,985.5262	6,985.5262	1.8436		7,031.6168
Total	3.4051	31.8748	44.5924	0.0725	1.9767	1.5597	3.5364	0.2993	1.4677	1.7670	0.0000	6,985.5262	6,985.5262	1.8436		7,031.6168

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5956	0.0000	0.5956	0.0711	0.0000	0.0711			0.0000			0.0000
Off-Road	3.2064	27.3496	32.9800	0.0736		1.3079	1.3079		1.2456	1.2456		7,079.2876	7,079.2876	1.7563		7,123.1950
Total	3.2064	27.3496	32.9800	0.0736	0.5956	1.3079	1.9035	0.0711	1.2456	1.3167		7,079.2876	7,079.2876	1.7563		7,123.1950

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2323	0.0000	0.2323	0.0277	0.0000	0.0277			0.0000			0.0000
Off-Road	3.2064	27.3496	32.9800	0.0736		1.3079	1.3079		1.2456	1.2456	0.0000	7,079.2876	7,079.2876	1.7563		7,123.1950
Total	3.2064	27.3496	32.9800	0.0736	0.2323	1.3079	1.5402	0.0277	1.2456	1.2733	0.0000	7,079.2876	7,079.2876	1.7563		7,123.1950

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5956	0.0000	0.5956	0.0711	0.0000	0.0711			0.0000			0.0000
Off-Road	3.0133	24.8586	32.8600	0.0737		1.1446	1.1446		1.0897	1.0897		7,084.8218	7,084.8218	1.7476		7,128.5104
Total	3.0133	24.8586	32.8600	0.0737	0.5956	1.1446	1.7402	0.0711	1.0897	1.1608		7,084.8218	7,084.8218	1.7476		7,128.5104

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2323	0.0000	0.2323	0.0277	0.0000	0.0277			0.0000			0.0000
Off-Road	3.0133	24.8586	32.8600	0.0737		1.1446	1.1446		1.0897	1.0897	0.0000	7,084.8218	7,084.8218	1.7476		7,128.5104
Total	3.0133	24.8586	32.8600	0.0737	0.2323	1.1446	1.3769	0.0277	1.0897	1.1174	0.0000	7,084.8218	7,084.8218	1.7476		7,128.5104

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.5 Foundations - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062		11,402.1627	11,402.1627	2.8726		11,473.9780
Total	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062		11,402.1627	11,402.1627	2.8726		11,473.9780

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062	0.0000	11,402.1627	11,402.1627	2.8726		11,473.9780
Total	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062	0.0000	11,402.1627	11,402.1627	2.8726		11,473.9780

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.5 Foundations - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267		11,410.7580	11,410.7580	2.8596		11,482.2476
Total	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267		11,410.7580	11,410.7580	2.8596		11,482.2476

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267	0.0000	11,410.7580	11,410.7580	2.8596		11,482.2476
Total	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267	0.0000	11,410.7580	11,410.7580	2.8596		11,482.2476

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.6 Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296		6,565.1359	6,565.1359	1.9697		6,614.3792
Total	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296		6,565.1359	6,565.1359	1.9697		6,614.3792

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296	0.0000	6,565.1359	6,565.1359	1.9697		6,614.3792
Total	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296	0.0000	6,565.1359	6,565.1359	1.9697		6,614.3792

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.6 Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300		6,566.4395	6,566.4395	1.9688		6,615.6604
Total	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300		6,566.4395	6,566.4395	1.9688		6,615.6604

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300	0.0000	6,566.4395	6,566.4395	1.9688		6,615.6604
Total	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300	0.0000	6,566.4395	6,566.4395	1.9688		6,615.6604

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.7 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797		4,245.3774	4,245.3774	0.5445		4,258.9891
Total	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797		4,245.3774	4,245.3774	0.5445		4,258.9891

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797	0.0000	4,245.3774	4,245.3774	0.5445			4,258.9891
Total	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797	0.0000	4,245.3774	4,245.3774	0.5445			4,258.9891

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.7 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769		4,245.2311	4,245.2311	0.5343		4,258.5893
Total	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769		4,245.2311	4,245.2311	0.5343		4,258.5893

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769	0.0000	4,245.2311	4,245.2311	0.5343			4,258.5893
Total	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769	0.0000	4,245.2311	4,245.2311	0.5343			4,258.5893

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.8 Site Preparation-2 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6832	0.0000	0.6832	0.0738	0.0000	0.0738			0.0000			0.0000
Off-Road	3.6353	37.5654	36.0920	0.0736		1.5917	1.5917		1.4643	1.4643		7,120.6078	7,120.6078	2.3030		7,178.1815
Total	3.6353	37.5654	36.0920	0.0736	0.6832	1.5917	2.2749	0.0738	1.4643	1.5381		7,120.6078	7,120.6078	2.3030		7,178.1815

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.2665	0.0000	0.2665	0.0288	0.0000	0.0288			0.0000				0.0000
Off-Road	3.6353	37.5654	36.0920	0.0736		1.5917	1.5917		1.4643	1.4643	0.0000	7,120.6078	7,120.6078	2.3030			7,178.1815
Total	3.6353	37.5654	36.0920	0.0736	0.2665	1.5917	1.8581	0.0288	1.4643	1.4931	0.0000	7,120.6078	7,120.6078	2.3030			7,178.1815

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.9 Landscape - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483		9,552.9744	9,552.9744	3.0785		9,629.9377
Total	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483		9,552.9744	9,552.9744	3.0785		9,629.9377

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483	0.0000	9,552.9744	9,552.9744	3.0785		9,629.9377
												4				7
Total	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483	0.0000	9,552.9744	9,552.9744	3.0785		9,629.9377
												4				7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.9 Landscape - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701		9,554.0289	9,554.0289	3.0789		9,631.0007
Total	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701		9,554.0289	9,554.0289	3.0789		9,631.0007

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701	0.0000	9,554.0289	9,554.0289	3.0789			9,631.0007
Total	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701	0.0000	9,554.0289	9,554.0289	3.0789			9,631.0007

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.10 Pool Area - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889		3,131.4021	3,131.4021	0.7333			3,149.7339
Total	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889		3,131.4021	3,131.4021	0.7333			3,149.7339

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889	0.0000	3,131.4021	3,131.4021	0.7333		3,149.7339
Total	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889	0.0000	3,131.4021	3,131.4021	0.7333		3,149.7339

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.10 Pool Area - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265		3,131.8483	3,131.8483	0.7310		3,150.1233
Total	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265		3,131.8483	3,131.8483	0.7310		3,150.1233

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265	0.0000	3,131.8483	3,131.8483	0.7310			3,150.1233
Total	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265	0.0000	3,131.8483	3,131.8483	0.7310			3,150.1233

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.11 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.9374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1213	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285		2,482.5996	2,482.5996	0.4759		2,494.4966
Total	9.0587	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285		2,482.5996	2,482.5996	0.4759		2,494.4966

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.9374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1213	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285	0.0000	2,482.5996	2,482.5996	0.4759		2,494.4966
Total	9.0587	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285	0.0000	2,482.5996	2,482.5996	0.4759		2,494.4966

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.12 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8959	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601		3,626.7690	3,626.7690	0.8911		3,649.0457
Paving	0.0795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9755	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601		3,626.7690	3,626.7690	0.8911		3,649.0457

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8959	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601	0.0000	3,626.7690	3,626.7690	0.8911		3,649.0457
Paving	0.0795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9755	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601	0.0000	3,626.7690	3,626.7690	0.8911		3,649.0457

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Harvard Westlake - Construction - South Coast AQMD Air District, Winter

**Harvard Westlake - Construction
South Coast AQMD Air District, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking with Elevator	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - existing uses to remain not included modeling. See construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - construction mobile emissions calculated outside of CalEEMo.d

Demolition -

Grading - see construction assumptions

Architectural Coating - see construction assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	58,777.00	128,809.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	176,331.00	386,426.00
tblArchitecturalCoating	ConstArea_Parking	24,040.00	15,636.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	310.00
tblConstructionPhase	NumDays	300.00	312.00
tblConstructionPhase	NumDays	300.00	446.00
tblConstructionPhase	NumDays	300.00	392.00
tblConstructionPhase	NumDays	300.00	365.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	30.00	181.00
tblConstructionPhase	NumDays	20.00	28.00

tblConstructionPhase	NumDays	10.00	27.00
tblConstructionPhase	NumDays	10.00	26.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	0.00	75.00
tblGrading	AcresOfGrading	0.00	16.75
tblGrading	AcresOfGrading	65.00	16.75
tblGrading	MaterialExported	0.00	250,000.00
tblGrading	MaterialExported	0.00	6,532.00
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60
tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30
tblLandUse	LotAcreage	4.53	1.00
tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	817.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,241.00	0.00
tblTripsAndVMT	HaulingTripNumber	31,250.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	83.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	53.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation-1	Site Preparation	6/30/2022	7/31/2022	6	27	
2	Demolition	Demolition	7/1/2022	8/31/2022	6	53	
3	Grading	Grading	8/1/2022	2/27/2023	6	181	
4	Foundations	Building Construction	12/2/2022	11/30/2023	6	312	
5	Utilities	Trenching	2/2/2023	4/5/2024	6	368	
6	Building Construction	Building Construction	5/1/2023	10/1/2024	6	446	
7	Site Preparation-2	Site Preparation	9/1/2023	9/30/2023	6	26	
8	Landscape	Building Construction	10/2/2023	12/31/2024	6	392	
9	Pool Area	Building Construction	11/2/2023	12/31/2024	6	365	
10	Architectural Coating	Architectural Coating	1/2/2024	12/27/2024	6	310	
11	Paving	Paving	11/1/2024	12/3/2024	6	28	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 386,426; Non-Residential Outdoor: 128,809; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation-1	Excavators	1	8.00	158	0.38
Site Preparation-1	Graders	0	8.00	187	0.41
Site Preparation-1	Off-Highway Trucks	1	4.40	402	0.38
Site Preparation-1	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-1	Scrapers	0	8.00	367	0.48
Site Preparation-1	Skid Steer Loaders	2	8.00	65	0.37
Site Preparation-1	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Site Preparation-1	Trenchers	0	8.00	78	0.50
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	1	4.40	402	0.38
Demolition	Rough Terrain Forklifts	2	8.00	100	0.40
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Skid Steer Loaders	4	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Grading	Air Compressors	2	8.00	78	0.48
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Off-Highway Trucks	2	4.40	402	0.38
Grading	Plate Compactors	0	8.00	8	0.43
Grading	Pumps	2	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Skid Steer Loaders	0	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Foundations	Air Compressors	3	8.00	78	0.48
Foundations	Bore/Drill Rigs	3	8.00	221	0.50
Foundations	Cranes	2	8.00	231	0.29
Foundations	Excavators	1	8.00	158	0.38
Foundations	Forklifts	0	8.00	89	0.20
Foundations	Generator Sets	0	8.00	84	0.74
Foundations	Off-Highway Trucks	1	4.40	402	0.38
Foundations	Plate Compactors	2	8.00	8	0.43

Foundations	Pumps	3	8.00	84	0.74
Foundations	Rough Terrain Forklifts	2	8.00	100	0.40
Foundations	Skid Steer Loaders	4	8.00	65	0.37
Foundations	Sweepers/Scrubbers	0	8.00	64	0.46
Foundations	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Foundations	Welders	0	8.00	46	0.45
Utilities	Air Compressors	1	8.00	78	0.48
Utilities	Dumpers/Tenders	3	8.00	16	0.38
Utilities	Excavators	2	8.00	158	0.38
Utilities	Off-Highway Trucks	2	4.40	402	0.38
Utilities	Plate Compactors	2	8.00	8	0.43
Utilities	Rough Terrain Forklifts	2	8.00	100	0.40
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Utilities	Signal Boards	0	8.00	6	0.82
Utilities	Skid Steer Loaders	4	8.00	65	0.37
Utilities	Sweepers/Scrubbers	1	8.00	64	0.46
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	0	8.00	78	0.50
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Building Construction	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction	Skid Steer Loaders	0	8.00	65	0.37
Building Construction	Sweepers/Scrubbers	0	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Site Preparation-2	Excavators	1	8.00	158	0.38

Site Preparation-2	Graders	1	8.00	187	0.41
Site Preparation-2	Off-Highway Trucks	1	4.40	402	0.38
Site Preparation-2	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-2	Scrapers	2	8.00	367	0.48
Site Preparation-2	Skid Steer Loaders	4	8.00	65	0.37
Site Preparation-2	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation-2	Trenchers	1	8.00	78	0.50
Landscape	Cement and Mortar Mixers	1	8.00	9	0.56
Landscape	Cranes	2	8.00	231	0.29
Landscape	Forklifts	1	8.00	89	0.20
Landscape	Generator Sets	0	8.00	84	0.74
Landscape	Graders	1	8.00	187	0.41
Landscape	Off-Highway Trucks	1	4.40	402	0.38
Landscape	Rollers	2	8.00	80	0.38
Landscape	Rough Terrain Forklifts	3	8.00	100	0.40
Landscape	Rubber Tired Loaders	3	8.00	203	0.36
Landscape	Skid Steer Loaders	7	8.00	65	0.37
Landscape	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Landscape	Trenchers	2	8.00	78	0.50
Landscape	Welders	0	8.00	46	0.45
Pool Area	Air Compressors	1	8.00	78	0.48
Pool Area	Cement and Mortar Mixers	0	8.00	9	0.56
Pool Area	Concrete/Industrial Saws	0	8.00	81	0.73
Pool Area	Cranes	1	8.00	231	0.29
Pool Area	Forklifts	0	8.00	89	0.20
Pool Area	Generator Sets	0	8.00	84	0.74
Pool Area	Off-Highway Trucks	1	4.40	402	0.38
Pool Area	Other Construction Equipment	0	8.00	172	0.42
Pool Area	Plate Compactors	1	8.00	8	0.43
Pool Area	Pumps	1	8.00	84	0.74

Pool Area	Rough Terrain Forklifts	1	8.00	100	0.40
Pool Area	Rubber Tired Loaders	0	8.00	203	0.36
Pool Area	Skid Steer Loaders	1	8.00	65	0.37
Pool Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pool Area	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Concrete/Industrial Saws	2	8.00	81	0.73
Architectural Coating	Forklifts	2	8.00	89	0.20
Architectural Coating	Rough Terrain Forklifts	3	8.00	100	0.40
Paving	Air Compressors	1	8.00	78	0.48
Paving	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Pumps	1	8.00	84	0.74
Paving	Rollers	1	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation-1	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	19	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations	27	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	21	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation-2	14	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscape	28	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Pool Area	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation-1 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6853	0.0000	0.6853	0.0752	0.0000	0.0752			0.0000			0.0000
Off-Road	1.2911	12.5443	16.8286	0.0290		0.5957	0.5957		0.5480	0.5480		2,809.1955	2,809.1955	0.9086		2,831.9093
Total	1.2911	12.5443	16.8286	0.0290	0.6853	0.5957	1.2809	0.0752	0.5480	0.6232		2,809.1955	2,809.1955	0.9086		2,831.9093

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2673	0.0000	0.2673	0.0293	0.0000	0.0293			0.0000			0.0000
Off-Road	1.2911	12.5443	16.8286	0.0290		0.5957	0.5957		0.5480	0.5480	0.0000	2,809.1955	2,809.1955	0.9086		2,831.9093
Total	1.2911	12.5443	16.8286	0.0290	0.2673	0.5957	0.8629	0.0293	0.5480	0.5774	0.0000	2,809.1955	2,809.1955	0.9086		2,831.9093

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.3 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0683	0.0000	5.0683	0.7674	0.0000	0.7674			0.0000			0.0000
Off-Road	3.4051	31.8748	44.5924	0.0725		1.5597	1.5597		1.4677	1.4677		6,985.5262	6,985.5262	1.8436		7,031.6168
Total	3.4051	31.8748	44.5924	0.0725	5.0683	1.5597	6.6280	0.7674	1.4677	2.2351		6,985.5262	6,985.5262	1.8436		7,031.6168

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9767	0.0000	1.9767	0.2993	0.0000	0.2993			0.0000			0.0000
Off-Road	3.4051	31.8748	44.5924	0.0725		1.5597	1.5597		1.4677	1.4677	0.0000	6,985.5262	6,985.5262	1.8436		7,031.6168
Total	3.4051	31.8748	44.5924	0.0725	1.9767	1.5597	3.5364	0.2993	1.4677	1.7670	0.0000	6,985.5262	6,985.5262	1.8436		7,031.6168

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5956	0.0000	0.5956	0.0711	0.0000	0.0711			0.0000			0.0000
Off-Road	3.2064	27.3496	32.9800	0.0736		1.3079	1.3079		1.2456	1.2456		7,079.2876	7,079.2876	1.7563		7,123.1950
Total	3.2064	27.3496	32.9800	0.0736	0.5956	1.3079	1.9035	0.0711	1.2456	1.3167		7,079.2876	7,079.2876	1.7563		7,123.1950

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2323	0.0000	0.2323	0.0277	0.0000	0.0277			0.0000			0.0000
Off-Road	3.2064	27.3496	32.9800	0.0736		1.3079	1.3079		1.2456	1.2456	0.0000	7,079.2876	7,079.2876	1.7563		7,123.1950
Total	3.2064	27.3496	32.9800	0.0736	0.2323	1.3079	1.5402	0.0277	1.2456	1.2733	0.0000	7,079.2876	7,079.2876	1.7563		7,123.1950

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5956	0.0000	0.5956	0.0711	0.0000	0.0711			0.0000			0.0000
Off-Road	3.0133	24.8586	32.8600	0.0737		1.1446	1.1446		1.0897	1.0897		7,084.8218	7,084.8218	1.7476		7,128.5104
Total	3.0133	24.8586	32.8600	0.0737	0.5956	1.1446	1.7402	0.0711	1.0897	1.1608		7,084.8218	7,084.8218	1.7476		7,128.5104

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2323	0.0000	0.2323	0.0277	0.0000	0.0277			0.0000			0.0000
Off-Road	3.0133	24.8586	32.8600	0.0737		1.1446	1.1446		1.0897	1.0897	0.0000	7,084.8218	7,084.8218	1.7476		7,128.5104
Total	3.0133	24.8586	32.8600	0.0737	0.2323	1.1446	1.3769	0.0277	1.0897	1.1174	0.0000	7,084.8218	7,084.8218	1.7476		7,128.5104

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.5 Foundations - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062		11,402.1627	11,402.1627	2.8726		11,473.9780
Total	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062		11,402.1627	11,402.1627	2.8726		11,473.9780

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062	0.0000	11,402.1627	11,402.1627	2.8726			11,473.9780
Total	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062	0.0000	11,402.1627	11,402.1627	2.8726			11,473.9780

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.5 Foundations - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267		11,410.7580	11,410.7580	2.8596		11,482.2476
Total	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267		11,410.7580	11,410.7580	2.8596		11,482.2476

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267	0.0000	11,410.7580	11,410.7580	2.8596		11,482.2476
Total	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267	0.0000	11,410.7580	11,410.7580	2.8596		11,482.2476

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.6 Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296		6,565.1359	6,565.1359	1.9697		6,614.3792
Total	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296		6,565.1359	6,565.1359	1.9697		6,614.3792

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296	0.0000	6,565.1359	6,565.1359	1.9697			6,614.3792
Total	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296	0.0000	6,565.1359	6,565.1359	1.9697			6,614.3792

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.6 Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300		6,566.4395	6,566.4395	1.9688		6,615.6604
Total	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300		6,566.4395	6,566.4395	1.9688		6,615.6604

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300	0.0000	6,566.4395	6,566.4395	1.9688		6,615.6604
Total	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300	0.0000	6,566.4395	6,566.4395	1.9688		6,615.6604

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.7 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797		4,245.3774	4,245.3774	0.5445		4,258.9891
Total	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797		4,245.3774	4,245.3774	0.5445		4,258.9891

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797	0.0000	4,245.3774	4,245.3774	0.5445			4,258.9891
Total	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797	0.0000	4,245.3774	4,245.3774	0.5445			4,258.9891

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.7 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769		4,245.2311	4,245.2311	0.5343		4,258.5893
Total	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769		4,245.2311	4,245.2311	0.5343		4,258.5893

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769	0.0000	4,245.2311	4,245.2311	0.5343			4,258.5893
Total	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769	0.0000	4,245.2311	4,245.2311	0.5343			4,258.5893

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.8 Site Preparation-2 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.6832	0.0000	0.6832	0.0738	0.0000	0.0738			0.0000				0.0000
Off-Road	3.6353	37.5654	36.0920	0.0736		1.5917	1.5917		1.4643	1.4643		7,120.6078	7,120.6078	2.3030			7,178.1815
Total	3.6353	37.5654	36.0920	0.0736	0.6832	1.5917	2.2749	0.0738	1.4643	1.5381		7,120.6078	7,120.6078	2.3030			7,178.1815

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2665	0.0000	0.2665	0.0288	0.0000	0.0288			0.0000			0.0000
Off-Road	3.6353	37.5654	36.0920	0.0736		1.5917	1.5917		1.4643	1.4643	0.0000	7,120.6078	7,120.6078	2.3030		7,178.1815
Total	3.6353	37.5654	36.0920	0.0736	0.2665	1.5917	1.8581	0.0288	1.4643	1.4931	0.0000	7,120.6078	7,120.6078	2.3030		7,178.1815

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.9 Landscape - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483		9,552.9744	9,552.9744	3.0785		9,629.9377
Total	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483		9,552.9744	9,552.9744	3.0785		9,629.9377

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483	0.0000	9,552.9744	9,552.9744	3.0785		9,629.9377
												4				7
Total	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483	0.0000	9,552.9744	9,552.9744	3.0785		9,629.9377
												4				7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.9 Landscape - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701		9,554.0289	9,554.0289	3.0789		9,631.0007
Total	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701		9,554.0289	9,554.0289	3.0789		9,631.0007

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701	0.0000	9,554.0289	9,554.0289	3.0789		9,631.0007
Total	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701	0.0000	9,554.0289	9,554.0289	3.0789		9,631.0007

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.10 Pool Area - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889		3,131.4021	3,131.4021	0.7333		3,149.7339
Total	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889		3,131.4021	3,131.4021	0.7333		3,149.7339

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889	0.0000	3,131.4021	3,131.4021	0.7333		3,149.7339
Total	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889	0.0000	3,131.4021	3,131.4021	0.7333		3,149.7339

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.10 Pool Area - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265		3,131.8483	3,131.8483	0.7310		3,150.1233
Total	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265		3,131.8483	3,131.8483	0.7310		3,150.1233

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265	0.0000	3,131.8483	3,131.8483	0.7310			3,150.1233
Total	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265	0.0000	3,131.8483	3,131.8483	0.7310			3,150.1233

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.11 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.9374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1213	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285		2,482.5996	2,482.5996	0.4759		2,494.4966
Total	9.0587	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285		2,482.5996	2,482.5996	0.4759		2,494.4966

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.9374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1213	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285	0.0000	2,482.5996	2,482.5996	0.4759		2,494.4966
Total	9.0587	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285	0.0000	2,482.5996	2,482.5996	0.4759		2,494.4966

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.12 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8959	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601		3,626.7690	3,626.7690	0.8911		3,649.0457
Paving	0.0795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9755	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601		3,626.7690	3,626.7690	0.8911		3,649.0457

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8959	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601	0.0000	3,626.7690	3,626.7690	0.8911		3,649.0457
Paving	0.0795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9755	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601	0.0000	3,626.7690	3,626.7690	0.8911		3,649.0457

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Harvard Westlake - Construction - South Coast AQMD Air District, Summer

Harvard Westlake - Construction
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking with Elevator	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - existing uses to remain not included modeling. See construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - construction mobile emissions calculated outside of CalEEMo.d

Demolition -

Grading - see construction assumptions

Architectural Coating - see construction assumptions

Construction Off-road Equipment Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	58,777.00	128,809.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	176,331.00	386,426.00
tblArchitecturalCoating	ConstArea_Parking	24,040.00	15,636.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	310.00
tblConstructionPhase	NumDays	300.00	312.00
tblConstructionPhase	NumDays	300.00	446.00
tblConstructionPhase	NumDays	300.00	392.00
tblConstructionPhase	NumDays	300.00	365.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	30.00	181.00
tblConstructionPhase	NumDays	20.00	28.00
tblConstructionPhase	NumDays	10.00	27.00
tblConstructionPhase	NumDays	10.00	26.00
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	0.00	75.00
tblGrading	AcresOfGrading	0.00	16.75
tblGrading	AcresOfGrading	65.00	16.75
tblGrading	MaterialExported	0.00	250,000.00
tblGrading	MaterialExported	0.00	6,532.00
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60

tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30
tblLandUse	LotAcreage	4.53	1.00
tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	817.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,241.00	0.00
tblTripsAndVMT	HaulingTripNumber	31,250.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	83.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00

tblTripsAndVMT	WorkerTripNumber	53.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	8.5622	78.2738	90.4146	0.1923	5.7536	3.6352	8.5315	0.8426	3.4518	3.5518	0.0000	18,481.4503	18,481.4503	4.6289	0.0000	18,597.1730
2023	16.6688	159.4967	180.4986	0.3640	0.6832	6.8816	6.8816	0.0738	6.4732	6.4732	0.0000	34,905.6479	34,905.6479	9.1856	0.0000	35,135.2876
2024	20.1653	116.0021	139.3479	0.2711	0.0000	4.8248	4.8248	0.0000	4.5319	4.5319	0.0000	25,980.1473	25,980.1473	6.7889	0.0000	26,149.8702
Maximum	20.1653	159.4967	180.4986	0.3640	5.7536	6.8816	8.5315	0.8426	6.4732	6.4732	0.0000	34,905.6479	34,905.6479	9.1856	0.0000	35,135.2876

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.4454	15.6710	113.2453	0.1923	2.2439	0.3172	2.4367	0.3286	0.3172	0.5548	0.0000	18,481.4503	18,481.4503	4.6289	0.0000	18,597.1730
2023	5.2964	40.4508	219.9569	0.3640	0.2665	0.7185	0.8710	0.0288	0.7185	0.7185	0.0000	34,905.6478	34,905.6478	9.1856	0.0000	35,135.2875
2024	11.9660	31.0355	167.1188	0.2711	0.0000	0.5539	0.5539	0.0000	0.5539	0.5539	0.0000	25,980.1473	25,980.1473	6.7889	0.0000	26,149.8702
Maximum	11.9660	40.4508	219.9569	0.3640	2.2439	0.7185	2.4367	0.3286	0.7185	0.7185	0.0000	34,905.6478	34,905.6478	9.1856	0.0000	35,135.2875

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	56.59	75.36	-21.95	0.00	61.00	89.64	80.92	61.00	89.01	87.45	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation-1	Site Preparation	6/30/2022	7/31/2022	6	27	
2	Demolition	Demolition	7/1/2022	8/31/2022	6	53	
3	Grading	Grading	8/1/2022	2/27/2023	6	181	
4	Foundations	Building Construction	12/2/2022	11/30/2023	6	312	
5	Utilities	Trenching	2/2/2023	4/5/2024	6	368	
6	Building Construction	Building Construction	5/1/2023	10/1/2024	6	446	
7	Site Preparation-2	Site Preparation	9/1/2023	9/30/2023	6	26	
8	Landscape	Building Construction	10/2/2023	12/31/2024	6	392	
9	Pool Area	Building Construction	11/2/2023	12/31/2024	6	365	
10	Architectural Coating	Architectural Coating	1/2/2024	12/27/2024	6	310	
11	Paving	Paving	11/1/2024	12/3/2024	6	28	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 386,426; Non-Residential Outdoor: 128,809; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation-1	Excavators	1	8.00	158	0.38
Site Preparation-1	Graders	0	8.00	187	0.41
Site Preparation-1	Off-Highway Trucks	1	4.40	402	0.38

Site Preparation-1	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-1	Scrapers	0	8.00	367	0.48
Site Preparation-1	Skid Steer Loaders	2	8.00	65	0.37
Site Preparation-1	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation-1	Trenchers	0	8.00	78	0.50
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	1	4.40	402	0.38
Demolition	Rough Terrain Forklifts	2	8.00	100	0.40
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Skid Steer Loaders	4	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Grading	Air Compressors	2	8.00	78	0.48
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Off-Highway Trucks	2	4.40	402	0.38
Grading	Plate Compactors	0	8.00	8	0.43
Grading	Pumps	2	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Skid Steer Loaders	0	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Foundations	Air Compressors	3	8.00	78	0.48
Foundations	Bore/Drill Rigs	3	8.00	221	0.50
Foundations	Cranes	2	8.00	231	0.29
Foundations	Excavators	1	8.00	158	0.38

Foundations	Forklifts	0	8.00	89	0.20
Foundations	Generator Sets	0	8.00	84	0.74
Foundations	Off-Highway Trucks	1	4.40	402	0.38
Foundations	Plate Compactors	2	8.00	8	0.43
Foundations	Pumps	3	8.00	84	0.74
Foundations	Rough Terrain Forklifts	2	8.00	100	0.40
Foundations	Skid Steer Loaders	4	8.00	65	0.37
Foundations	Sweepers/Scrubbers	0	8.00	64	0.46
Foundations	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Foundations	Welders	0	8.00	46	0.45
Utilities	Air Compressors	1	8.00	78	0.48
Utilities	Dumpers/Tenders	3	8.00	16	0.38
Utilities	Excavators	2	8.00	158	0.38
Utilities	Off-Highway Trucks	2	4.40	402	0.38
Utilities	Plate Compactors	2	8.00	8	0.43
Utilities	Rough Terrain Forklifts	2	8.00	100	0.40
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Utilities	Signal Boards	0	8.00	6	0.82
Utilities	Skid Steer Loaders	4	8.00	65	0.37
Utilities	Sweepers/Scrubbers	1	8.00	64	0.46
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	0	8.00	78	0.50
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Building Construction	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction	Skid Steer Loaders	0	8.00	65	0.37

Building Construction	Sweepers/Scrubbers	0	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Site Preparation-2	Excavators	1	8.00	158	0.38
Site Preparation-2	Graders	1	8.00	187	0.41
Site Preparation-2	Off-Highway Trucks	1	4.40	402	0.38
Site Preparation-2	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-2	Scrapers	2	8.00	367	0.48
Site Preparation-2	Skid Steer Loaders	4	8.00	65	0.37
Site Preparation-2	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation-2	Trenchers	1	8.00	78	0.50
Landscape	Cement and Mortar Mixers	1	8.00	9	0.56
Landscape	Cranes	2	8.00	231	0.29
Landscape	Forklifts	1	8.00	89	0.20
Landscape	Generator Sets	0	8.00	84	0.74
Landscape	Graders	1	8.00	187	0.41
Landscape	Off-Highway Trucks	1	4.40	402	0.38
Landscape	Rollers	2	8.00	80	0.38
Landscape	Rough Terrain Forklifts	3	8.00	100	0.40
Landscape	Rubber Tired Loaders	3	8.00	203	0.36
Landscape	Skid Steer Loaders	7	8.00	65	0.37
Landscape	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Landscape	Trenchers	2	8.00	78	0.50
Landscape	Welders	0	8.00	46	0.45
Pool Area	Air Compressors	1	8.00	78	0.48
Pool Area	Cement and Mortar Mixers	0	8.00	9	0.56
Pool Area	Concrete/Industrial Saws	0	8.00	81	0.73
Pool Area	Cranes	1	8.00	231	0.29
Pool Area	Forklifts	0	8.00	89	0.20
Pool Area	Generator Sets	0	8.00	84	0.74

Pool Area	Off-Highway Trucks	1	4.40	402	0.38
Pool Area	Other Construction Equipment	0	8.00	172	0.42
Pool Area	Plate Compactors	1	8.00	8	0.43
Pool Area	Pumps	1	8.00	84	0.74
Pool Area	Rough Terrain Forklifts	1	8.00	100	0.40
Pool Area	Rubber Tired Loaders	0	8.00	203	0.36
Pool Area	Skid Steer Loaders	1	8.00	65	0.37
Pool Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pool Area	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Concrete/Industrial Saws	2	8.00	81	0.73
Architectural Coating	Forklifts	2	8.00	89	0.20
Architectural Coating	Rough Terrain Forklifts	3	8.00	100	0.40
Paving	Air Compressors	1	8.00	78	0.48
Paving	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Pumps	1	8.00	84	0.74
Paving	Rollers	1	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation-1	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	19	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations	27	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Utilities	21	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation-2	14	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscape	28	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pool Area	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation-1 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.6853	0.0000	0.6853	0.0752	0.0000	0.0752			0.0000				0.0000
Off-Road	1.2911	12.5443	16.8286	0.0290		0.5957	0.5957		0.5480	0.5480		2,809.1955	2,809.1955	0.9086			2,831.9093
Total	1.2911	12.5443	16.8286	0.0290	0.6853	0.5957	1.2809	0.0752	0.5480	0.6232		2,809.1955	2,809.1955	0.9086			2,831.9093

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2673	0.0000	0.2673	0.0293	0.0000	0.0293			0.0000			0.0000
Off-Road	0.4062	3.6434	19.6852	0.0290		0.0474	0.0474		0.0474	0.0474	0.0000	2,809.1955	2,809.1955	0.9086		2,831.9093
Total	0.4062	3.6434	19.6852	0.0290	0.2673	0.0474	0.3146	0.0293	0.0474	0.0767	0.0000	2,809.1955	2,809.1955	0.9086		2,831.9093

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.3 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0683	0.0000	5.0683	0.7674	0.0000	0.7674			0.0000			0.0000
Off-Road	3.4051	31.8748	44.5924	0.0725		1.5597	1.5597		1.4677	1.4677		6,985.5262	6,985.5262	1.8436		7,031.6168
Total	3.4051	31.8748	44.5924	0.0725	5.0683	1.5597	6.6280	0.7674	1.4677	2.2351		6,985.5262	6,985.5262	1.8436		7,031.6168

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9767	0.0000	1.9767	0.2993	0.0000	0.2993			0.0000			0.0000
Off-Road	0.9847	9.1866	50.3043	0.0725		0.1136	0.1136		0.1136	0.1136	0.0000	6,985.5262	6,985.5262	1.8436		7,031.6168
Total	0.9847	9.1866	50.3043	0.0725	1.9767	0.1136	2.0902	0.2993	0.1136	0.4129	0.0000	6,985.5262	6,985.5262	1.8436		7,031.6168

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5956	0.0000	0.5956	0.0711	0.0000	0.0711			0.0000			0.0000
Off-Road	3.2064	27.3496	32.9800	0.0736		1.3079	1.3079		1.2456	1.2456		7,079.2876	7,079.2876	1.7563		7,123.1950
Total	3.2064	27.3496	32.9800	0.0736	0.5956	1.3079	1.9035	0.0711	1.2456	1.3167		7,079.2876	7,079.2876	1.7563		7,123.1950

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2323	0.0000	0.2323	0.0277	0.0000	0.0277			0.0000			0.0000
Off-Road	0.8878	4.9999	42.5356	0.0736		0.1142	0.1142		0.1142	0.1142	0.0000	7,079.2876	7,079.2876	1.7563		7,123.1950
Total	0.8878	4.9999	42.5356	0.0736	0.2323	0.1142	0.3465	0.0277	0.1142	0.1420	0.0000	7,079.2876	7,079.2876	1.7563		7,123.1950

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.5956	0.0000	0.5956	0.0711	0.0000	0.0711			0.0000				0.0000
Off-Road	3.0133	24.8586	32.8600	0.0737		1.1446	1.1446		1.0897	1.0897		7,084.8218	7,084.8218	1.7476			7,128.5104
Total	3.0133	24.8586	32.8600	0.0737	0.5956	1.1446	1.7402	0.0711	1.0897	1.1608		7,084.8218	7,084.8218	1.7476			7,128.5104

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2323	0.0000	0.2323	0.0277	0.0000	0.0277			0.0000			0.0000
Off-Road	0.8878	4.9999	42.5356	0.0737		0.1142	0.1142		0.1142	0.1142	0.0000	7,084.8218	7,084.8218	1.7476		7,128.5104
Total	0.8878	4.9999	42.5356	0.0737	0.2323	0.1142	0.3465	0.0277	0.1142	0.1420	0.0000	7,084.8218	7,084.8218	1.7476		7,128.5104

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.5 Foundations - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062		11,402.1627	11,402.1627	2.8726			11,473.9780
Total	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062		11,402.1627	11,402.1627	2.8726			11,473.9780

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5576	10.6711	70.7096	0.1187		0.2029	0.2029		0.2029	0.2029	0.0000	11,402.1627	11,402.1627	2.8726			11,473.9780
Total	1.5576	10.6711	70.7096	0.1187		0.2029	0.2029		0.2029	0.2029	0.0000	11,402.1627	11,402.1627	2.8726			11,473.9780

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.5 Foundations - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267		11,410.7580	11,410.7580	2.8596		11,482.2476
Total	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267		11,410.7580	11,410.7580	2.8596		11,482.2476

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5576	10.6711	70.7096	0.1188		0.2029	0.2029		0.2029	0.2029	0.0000	11,410.7580	11,410.7580	2.8596			11,482.2476
Total	1.5576	10.6711	70.7096	0.1188		0.2029	0.2029		0.2029	0.2029	0.0000	11,410.7580	11,410.7580	2.8596			11,482.2476

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.6 Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296		6,565.1359	6,565.1359	1.9697		6,614.3792
Total	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296		6,565.1359	6,565.1359	1.9697		6,614.3792

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2263	10.8269	41.7474	0.0685		0.1774	0.1774		0.1774	0.1774	0.0000	6,565.1359	6,565.1359	1.9697		6,614.3792
Total	1.2263	10.8269	41.7474	0.0685		0.1774	0.1774		0.1774	0.1774	0.0000	6,565.1359	6,565.1359	1.9697		6,614.3792

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.6 Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300		6,566.4395	6,566.4395	1.9688		6,615.6604
Total	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300		6,566.4395	6,566.4395	1.9688		6,615.6604

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2263	10.8269	41.7478	0.0686		0.1770	0.1770		0.1770	0.1770	0.0000	6,566.4395	6,566.4395	1.9688		6,615.6604
Total	1.2263	10.8269	41.7478	0.0686		0.1770	0.1770		0.1770	0.1770	0.0000	6,566.4395	6,566.4395	1.9688		6,615.6604

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.7 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797		4,245.3774	4,245.3774	0.5445			4,258.9891
Total	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797		4,245.3774	4,245.3774	0.5445			4,258.9891

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6346	3.0904	27.4136	0.0451		0.1040	0.1040		0.1040	0.1040	0.0000	4,245.3774	4,245.3774	0.5445		4,258.9891
Total	0.6346	3.0904	27.4136	0.0451		0.1040	0.1040		0.1040	0.1040	0.0000	4,245.3774	4,245.3774	0.5445		4,258.9891

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.7 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769		4,245.2311	4,245.2311	0.5343		4,258.5893
Total	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769		4,245.2311	4,245.2311	0.5343		4,258.5893

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6346	3.0904	27.4136	0.0451		0.1040	0.1040		0.1040	0.1040	0.0000	4,245.2311	4,245.2311	0.5343		4,258.5893
Total	0.6346	3.0904	27.4136	0.0451		0.1040	0.1040		0.1040	0.1040	0.0000	4,245.2311	4,245.2311	0.5343		4,258.5893

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.8 Site Preparation-2 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6832	0.0000	0.6832	0.0738	0.0000	0.0738			0.0000			0.0000
Off-Road	3.6353	37.5654	36.0920	0.0736		1.5917	1.5917		1.4643	1.4643		7,120.6078	7,120.6078	2.3030		7,178.1815
Total	3.6353	37.5654	36.0920	0.0736	0.6832	1.5917	2.2749	0.0738	1.4643	1.5381		7,120.6078	7,120.6078	2.3030		7,178.1815

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2665	0.0000	0.2665	0.0288	0.0000	0.0288			0.0000			0.0000
Off-Road	1.0032	8.1138	42.0144	0.0736		0.1202	0.1202		0.1202	0.1202	0.0000	7,120.6078	7,120.6078	2.3030		7,178.1815
Total	1.0032	8.1138	42.0144	0.0736	0.2665	0.1202	0.3866	0.0288	0.1202	0.1490	0.0000	7,120.6078	7,120.6078	2.3030		7,178.1815

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.9 Landscape - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483		9,552.9744	9,552.9744	3.0785		9,629.9377
Total	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483		9,552.9744	9,552.9744	3.0785		9,629.9377

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4415	12.9516	60.9951	0.0989		0.1749	0.1749		0.1749	0.1749	0.0000	9,552.9744	9,552.9744	3.0785		9,629.9377
												4				7
Total	1.4415	12.9516	60.9951	0.0989		0.1749	0.1749		0.1749	0.1749	0.0000	9,552.9744	9,552.9744	3.0785		9,629.9377
												4				7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.9 Landscape - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701		9,554.0289	9,554.0289	3.0789		9,631.0007
Total	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701		9,554.0289	9,554.0289	3.0789		9,631.0007

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.4415	12.9516	60.9951	0.0989		0.1749	0.1749		0.1749	0.1749	0.0000	9,554.0289	9,554.0289	3.0789			9,631.0007
Total	1.4415	12.9516	60.9951	0.0989		0.1749	0.1749		0.1749	0.1749	0.0000	9,554.0289	9,554.0289	3.0789			9,631.0007

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.10 Pool Area - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889		3,131.4021	3,131.4021	0.7333		3,149.7339
Total	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889		3,131.4021	3,131.4021	0.7333		3,149.7339

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.4365	2.9107	19.0911	0.0327		0.0592	0.0592		0.0592	0.0592	0.0000	3,131.4021	3,131.4021	0.7333			3,149.7339
Total	0.4365	2.9107	19.0911	0.0327		0.0592	0.0592		0.0592	0.0592	0.0000	3,131.4021	3,131.4021	0.7333			3,149.7339

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.10 Pool Area - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265		3,131.8483	3,131.8483	0.7310		3,150.1233
Total	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265		3,131.8483	3,131.8483	0.7310		3,150.1233

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4365	2.9107	19.0911	0.0327		0.0592	0.0592		0.0592	0.0592	0.0000	3,131.8483	3,131.8483	0.7310		3,150.1233
Total	0.4365	2.9107	19.0911	0.0327		0.0592	0.0592		0.0592	0.0592	0.0000	3,131.8483	3,131.8483	0.7310		3,150.1233

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.11 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.9374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1213	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285		2,482.5996	2,482.5996	0.4759		2,494.4966
Total	9.0587	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285		2,482.5996	2,482.5996	0.4759		2,494.4966

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.9374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2898	1.2558	17.8712	0.0259		0.0386	0.0386		0.0386	0.0386	0.0000	2,482.5996	2,482.5996	0.4759		2,494.4966
Total	8.2272	1.2558	17.8712	0.0259		0.0386	0.0386		0.0386	0.0386	0.0000	2,482.5996	2,482.5996	0.4759		2,494.4966

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.12 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8959	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601		3,626.7690	3,626.7690	0.8911		3,649.0457
Paving	0.0795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9755	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601		3,626.7690	3,626.7690	0.8911		3,649.0457

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5051	3.4192	24.9381	0.0378		0.0676	0.0676		0.0676	0.0676	0.0000	3,626.7690	3,626.7690	0.8911		3,649.0457
Paving	0.0795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5847	3.4192	24.9381	0.0378		0.0676	0.0676		0.0676	0.0676	0.0000	3,626.7690	3,626.7690	0.8911		3,649.0457

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Harvard Westlake - Construction - South Coast AQMD Air District, Winter

Harvard Westlake - Construction
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking with Elevator	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - existing uses to remain not included modeling. See construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - construction mobile emissions calculated outside of CalEEMo.d

Demolition -

Grading - see construction assumptions

Architectural Coating - see construction assumptions

Construction Off-road Equipment Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	58,777.00	128,809.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	176,331.00	386,426.00
tblArchitecturalCoating	ConstArea_Parking	24,040.00	15,636.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	310.00
tblConstructionPhase	NumDays	300.00	312.00
tblConstructionPhase	NumDays	300.00	446.00
tblConstructionPhase	NumDays	300.00	392.00
tblConstructionPhase	NumDays	300.00	365.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	30.00	181.00
tblConstructionPhase	NumDays	20.00	28.00
tblConstructionPhase	NumDays	10.00	27.00
tblConstructionPhase	NumDays	10.00	26.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	0.00	75.00
tblGrading	AcresOfGrading	0.00	16.75
tblGrading	AcresOfGrading	65.00	16.75
tblGrading	MaterialExported	0.00	250,000.00
tblGrading	MaterialExported	0.00	6,532.00
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60

tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30
tblLandUse	LotAcreage	4.53	1.00
tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	817.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,241.00	0.00
tblTripsAndVMT	HaulingTripNumber	31,250.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	83.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00

tblTripsAndVMT	WorkerTripNumber	53.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	8.5622	78.2738	90.4146	0.1923	5.7536	3.6352	8.5315	0.8426	3.4518	3.5518	0.0000	18,481.4503	18,481.4503	4.6289	0.0000	18,597.1730
2023	16.6688	159.4967	180.4986	0.3640	0.6832	6.8816	6.8816	0.0738	6.4732	6.4732	0.0000	34,905.6479	34,905.6479	9.1856	0.0000	35,135.2876
2024	20.1653	116.0021	139.3479	0.2711	0.0000	4.8248	4.8248	0.0000	4.5319	4.5319	0.0000	25,980.1473	25,980.1473	6.7889	0.0000	26,149.8702
Maximum	20.1653	159.4967	180.4986	0.3640	5.7536	6.8816	8.5315	0.8426	6.4732	6.4732	0.0000	34,905.6479	34,905.6479	9.1856	0.0000	35,135.2876

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.4454	15.6710	113.2453	0.1923	2.2439	0.3172	2.4367	0.3286	0.3172	0.5548	0.0000	18,481.4503	18,481.4503	4.6289	0.0000	18,597.1730
2023	5.2964	40.4508	219.9569	0.3640	0.2665	0.7185	0.8710	0.0288	0.7185	0.7185	0.0000	34,905.6478	34,905.6478	9.1856	0.0000	35,135.2875
2024	11.9660	31.0355	167.1188	0.2711	0.0000	0.5539	0.5539	0.0000	0.5539	0.5539	0.0000	25,980.1473	25,980.1473	6.7889	0.0000	26,149.8702
Maximum	11.9660	40.4508	219.9569	0.3640	2.2439	0.7185	2.4367	0.3286	0.7185	0.7185	0.0000	34,905.6478	34,905.6478	9.1856	0.0000	35,135.2875

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	56.59	75.36	-21.95	0.00	61.00	89.64	80.92	61.00	89.01	87.45	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation-1	Site Preparation	6/30/2022	7/31/2022	6	27	
2	Demolition	Demolition	7/1/2022	8/31/2022	6	53	
3	Grading	Grading	8/1/2022	2/27/2023	6	181	
4	Foundations	Building Construction	12/2/2022	11/30/2023	6	312	
5	Utilities	Trenching	2/2/2023	4/5/2024	6	368	
6	Building Construction	Building Construction	5/1/2023	10/1/2024	6	446	
7	Site Preparation-2	Site Preparation	9/1/2023	9/30/2023	6	26	
8	Landscape	Building Construction	10/2/2023	12/31/2024	6	392	
9	Pool Area	Building Construction	11/2/2023	12/31/2024	6	365	
10	Architectural Coating	Architectural Coating	1/2/2024	12/27/2024	6	310	
11	Paving	Paving	11/1/2024	12/3/2024	6	28	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 386,426; Non-Residential Outdoor: 128,809; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation-1	Excavators	1	8.00	158	0.38
Site Preparation-1	Graders	0	8.00	187	0.41
Site Preparation-1	Off-Highway Trucks	1	4.40	402	0.38

Site Preparation-1	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-1	Scrapers	0	8.00	367	0.48
Site Preparation-1	Skid Steer Loaders	2	8.00	65	0.37
Site Preparation-1	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation-1	Trenchers	0	8.00	78	0.50
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	1	4.40	402	0.38
Demolition	Rough Terrain Forklifts	2	8.00	100	0.40
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Skid Steer Loaders	4	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Grading	Air Compressors	2	8.00	78	0.48
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Off-Highway Trucks	2	4.40	402	0.38
Grading	Plate Compactors	0	8.00	8	0.43
Grading	Pumps	2	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Skid Steer Loaders	0	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Foundations	Air Compressors	3	8.00	78	0.48
Foundations	Bore/Drill Rigs	3	8.00	221	0.50
Foundations	Cranes	2	8.00	231	0.29
Foundations	Excavators	1	8.00	158	0.38

Foundations	Forklifts	0	8.00	89	0.20
Foundations	Generator Sets	0	8.00	84	0.74
Foundations	Off-Highway Trucks	1	4.40	402	0.38
Foundations	Plate Compactors	2	8.00	8	0.43
Foundations	Pumps	3	8.00	84	0.74
Foundations	Rough Terrain Forklifts	2	8.00	100	0.40
Foundations	Skid Steer Loaders	4	8.00	65	0.37
Foundations	Sweepers/Scrubbers	0	8.00	64	0.46
Foundations	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Foundations	Welders	0	8.00	46	0.45
Utilities	Air Compressors	1	8.00	78	0.48
Utilities	Dumpers/Tenders	3	8.00	16	0.38
Utilities	Excavators	2	8.00	158	0.38
Utilities	Off-Highway Trucks	2	4.40	402	0.38
Utilities	Plate Compactors	2	8.00	8	0.43
Utilities	Rough Terrain Forklifts	2	8.00	100	0.40
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Utilities	Signal Boards	0	8.00	6	0.82
Utilities	Skid Steer Loaders	4	8.00	65	0.37
Utilities	Sweepers/Scrubbers	1	8.00	64	0.46
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	0	8.00	78	0.50
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Building Construction	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction	Skid Steer Loaders	0	8.00	65	0.37

Building Construction	Sweepers/Scrubbers	0	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Site Preparation-2	Excavators	1	8.00	158	0.38
Site Preparation-2	Graders	1	8.00	187	0.41
Site Preparation-2	Off-Highway Trucks	1	4.40	402	0.38
Site Preparation-2	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-2	Scrapers	2	8.00	367	0.48
Site Preparation-2	Skid Steer Loaders	4	8.00	65	0.37
Site Preparation-2	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation-2	Trenchers	1	8.00	78	0.50
Landscape	Cement and Mortar Mixers	1	8.00	9	0.56
Landscape	Cranes	2	8.00	231	0.29
Landscape	Forklifts	1	8.00	89	0.20
Landscape	Generator Sets	0	8.00	84	0.74
Landscape	Graders	1	8.00	187	0.41
Landscape	Off-Highway Trucks	1	4.40	402	0.38
Landscape	Rollers	2	8.00	80	0.38
Landscape	Rough Terrain Forklifts	3	8.00	100	0.40
Landscape	Rubber Tired Loaders	3	8.00	203	0.36
Landscape	Skid Steer Loaders	7	8.00	65	0.37
Landscape	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Landscape	Trenchers	2	8.00	78	0.50
Landscape	Welders	0	8.00	46	0.45
Pool Area	Air Compressors	1	8.00	78	0.48
Pool Area	Cement and Mortar Mixers	0	8.00	9	0.56
Pool Area	Concrete/Industrial Saws	0	8.00	81	0.73
Pool Area	Cranes	1	8.00	231	0.29
Pool Area	Forklifts	0	8.00	89	0.20
Pool Area	Generator Sets	0	8.00	84	0.74

Pool Area	Off-Highway Trucks	1	4.40	402	0.38
Pool Area	Other Construction Equipment	0	8.00	172	0.42
Pool Area	Plate Compactors	1	8.00	8	0.43
Pool Area	Pumps	1	8.00	84	0.74
Pool Area	Rough Terrain Forklifts	1	8.00	100	0.40
Pool Area	Rubber Tired Loaders	0	8.00	203	0.36
Pool Area	Skid Steer Loaders	1	8.00	65	0.37
Pool Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pool Area	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Concrete/Industrial Saws	2	8.00	81	0.73
Architectural Coating	Forklifts	2	8.00	89	0.20
Architectural Coating	Rough Terrain Forklifts	3	8.00	100	0.40
Paving	Air Compressors	1	8.00	78	0.48
Paving	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Pumps	1	8.00	84	0.74
Paving	Rollers	1	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation-1	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	19	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations	27	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Utilities	21	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation-2	14	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscape	28	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pool Area	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation-1 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6853	0.0000	0.6853	0.0752	0.0000	0.0752			0.0000			0.0000
Off-Road	1.2911	12.5443	16.8286	0.0290		0.5957	0.5957		0.5480	0.5480		2,809.1955	2,809.1955	0.9086		2,831.9093
Total	1.2911	12.5443	16.8286	0.0290	0.6853	0.5957	1.2809	0.0752	0.5480	0.6232		2,809.1955	2,809.1955	0.9086		2,831.9093

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2673	0.0000	0.2673	0.0293	0.0000	0.0293			0.0000			0.0000
Off-Road	0.4062	3.6434	19.6852	0.0290		0.0474	0.0474		0.0474	0.0474	0.0000	2,809.1955	2,809.1955	0.9086		2,831.9093
Total	0.4062	3.6434	19.6852	0.0290	0.2673	0.0474	0.3146	0.0293	0.0474	0.0767	0.0000	2,809.1955	2,809.1955	0.9086		2,831.9093

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.3 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0683	0.0000	5.0683	0.7674	0.0000	0.7674			0.0000			0.0000
Off-Road	3.4051	31.8748	44.5924	0.0725		1.5597	1.5597		1.4677	1.4677		6,985.5262	6,985.5262	1.8436		7,031.6168
Total	3.4051	31.8748	44.5924	0.0725	5.0683	1.5597	6.6280	0.7674	1.4677	2.2351		6,985.5262	6,985.5262	1.8436		7,031.6168

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9767	0.0000	1.9767	0.2993	0.0000	0.2993			0.0000			0.0000
Off-Road	0.9847	9.1866	50.3043	0.0725		0.1136	0.1136		0.1136	0.1136	0.0000	6,985.5262	6,985.5262	1.8436		7,031.6168
Total	0.9847	9.1866	50.3043	0.0725	1.9767	0.1136	2.0902	0.2993	0.1136	0.4129	0.0000	6,985.5262	6,985.5262	1.8436		7,031.6168

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.5956	0.0000	0.5956	0.0711	0.0000	0.0711			0.0000				0.0000
Off-Road	3.2064	27.3496	32.9800	0.0736		1.3079	1.3079		1.2456	1.2456		7,079.2876	7,079.2876	1.7563			7,123.1950
Total	3.2064	27.3496	32.9800	0.0736	0.5956	1.3079	1.9035	0.0711	1.2456	1.3167		7,079.2876	7,079.2876	1.7563			7,123.1950

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2323	0.0000	0.2323	0.0277	0.0000	0.0277			0.0000			0.0000
Off-Road	0.8878	4.9999	42.5356	0.0736		0.1142	0.1142		0.1142	0.1142	0.0000	7,079.2876	7,079.2876	1.7563		7,123.1950
Total	0.8878	4.9999	42.5356	0.0736	0.2323	0.1142	0.3465	0.0277	0.1142	0.1420	0.0000	7,079.2876	7,079.2876	1.7563		7,123.1950

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.5956	0.0000	0.5956	0.0711	0.0000	0.0711			0.0000				0.0000
Off-Road	3.0133	24.8586	32.8600	0.0737		1.1446	1.1446		1.0897	1.0897		7,084.8218	7,084.8218	1.7476			7,128.5104
Total	3.0133	24.8586	32.8600	0.0737	0.5956	1.1446	1.7402	0.0711	1.0897	1.1608		7,084.8218	7,084.8218	1.7476			7,128.5104

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2323	0.0000	0.2323	0.0277	0.0000	0.0277			0.0000			0.0000
Off-Road	0.8878	4.9999	42.5356	0.0737		0.1142	0.1142		0.1142	0.1142	0.0000	7,084.8218	7,084.8218	1.7476		7,128.5104
Total	0.8878	4.9999	42.5356	0.0737	0.2323	0.1142	0.3465	0.0277	0.1142	0.1420	0.0000	7,084.8218	7,084.8218	1.7476		7,128.5104

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.5 Foundations - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062		11,402.1627	11,402.1627	2.8726		11,473.9780
Total	5.3559	50.9242	57.4346	0.1187		2.3273	2.3273		2.2062	2.2062		11,402.1627	11,402.1627	2.8726		11,473.9780

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5576	10.6711	70.7096	0.1187		0.2029	0.2029		0.2029	0.2029	0.0000	11,402.1627	11,402.1627	2.8726			11,473.9780
Total	1.5576	10.6711	70.7096	0.1187		0.2029	0.2029		0.2029	0.2029	0.0000	11,402.1627	11,402.1627	2.8726			11,473.9780

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.5 Foundations - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267		11,410.7580	11,410.7580	2.8596		11,482.2476
Total	5.0243	46.7054	57.1792	0.1188		2.0327	2.0327		1.9267	1.9267		11,410.7580	11,410.7580	2.8596		11,482.2476

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	1.5576	10.6711	70.7096	0.1188		0.2029	0.2029		0.2029	0.2029	0.0000	11,410.7580	11,410.7580	2.8596			11,482.2476
Total	1.5576	10.6711	70.7096	0.1188		0.2029	0.2029		0.2029	0.2029	0.0000	11,410.7580	11,410.7580	2.8596			11,482.2476

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.6 Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296		6,565.1359	6,565.1359	1.9697		6,614.3792
Total	2.9854	26.9996	33.2380	0.0685		1.1047	1.1047		1.0296	1.0296		6,565.1359	6,565.1359	1.9697		6,614.3792

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2263	10.8269	41.7474	0.0685		0.1774	0.1774		0.1774	0.1774	0.0000	6,565.1359	6,565.1359	1.9697		6,614.3792
Total	1.2263	10.8269	41.7474	0.0685		0.1774	0.1774		0.1774	0.1774	0.0000	6,565.1359	6,565.1359	1.9697		6,614.3792

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.6 Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300		6,566.4395	6,566.4395	1.9688		6,615.6604
Total	2.8711	25.1547	33.1894	0.0686		0.9976	0.9976		0.9300	0.9300		6,566.4395	6,566.4395	1.9688		6,615.6604

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2263	10.8269	41.7478	0.0686		0.1770	0.1770		0.1770	0.1770	0.0000	6,566.4395	6,566.4395	1.9688		6,615.6604
Total	1.2263	10.8269	41.7478	0.0686		0.1770	0.1770		0.1770	0.1770	0.0000	6,566.4395	6,566.4395	1.9688		6,615.6604

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.7 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797		4,245.3774	4,245.3774	0.5445		4,258.9891
Total	2.2183	20.3185	24.4264	0.0451		0.8997	0.8997		0.8797	0.8797		4,245.3774	4,245.3774	0.5445		4,258.9891

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6346	3.0904	27.4136	0.0451		0.1040	0.1040		0.1040	0.1040	0.0000	4,245.3774	4,245.3774	0.5445		4,258.9891
Total	0.6346	3.0904	27.4136	0.0451		0.1040	0.1040		0.1040	0.1040	0.0000	4,245.3774	4,245.3774	0.5445		4,258.9891

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.7 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769		4,245.2311	4,245.2311	0.5343		4,258.5893
Total	2.0940	19.1126	24.3469	0.0451		0.7951	0.7951		0.7769	0.7769		4,245.2311	4,245.2311	0.5343		4,258.5893

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6346	3.0904	27.4136	0.0451		0.1040	0.1040		0.1040	0.1040	0.0000	4,245.2311	4,245.2311	0.5343		4,258.5893
Total	0.6346	3.0904	27.4136	0.0451		0.1040	0.1040		0.1040	0.1040	0.0000	4,245.2311	4,245.2311	0.5343		4,258.5893

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.8 Site Preparation-2 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6832	0.0000	0.6832	0.0738	0.0000	0.0738			0.0000			0.0000
Off-Road	3.6353	37.5654	36.0920	0.0736		1.5917	1.5917		1.4643	1.4643		7,120.6078	7,120.6078	2.3030		7,178.1815
Total	3.6353	37.5654	36.0920	0.0736	0.6832	1.5917	2.2749	0.0738	1.4643	1.5381		7,120.6078	7,120.6078	2.3030		7,178.1815

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2665	0.0000	0.2665	0.0288	0.0000	0.0288			0.0000			0.0000
Off-Road	1.0032	8.1138	42.0144	0.0736		0.1202	0.1202		0.1202	0.1202	0.0000	7,120.6078	7,120.6078	2.3030		7,178.1815
Total	1.0032	8.1138	42.0144	0.0736	0.2665	0.1202	0.3866	0.0288	0.1202	0.1490	0.0000	7,120.6078	7,120.6078	2.3030		7,178.1815

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.9 Landscape - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483		9,552.9744	9,552.9744	3.0785		9,629.9377
Total	4.8667	51.1542	49.7575	0.0989		2.2251	2.2251		2.0483	2.0483		9,552.9744	9,552.9744	3.0785		9,629.9377

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4415	12.9516	60.9951	0.0989		0.1749	0.1749		0.1749	0.1749	0.0000	9,552.9744	9,552.9744	3.0785		9,629.9377
												4				7
Total	1.4415	12.9516	60.9951	0.0989		0.1749	0.1749		0.1749	0.1749	0.0000	9,552.9744	9,552.9744	3.0785		9,629.9377
												4				7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.9 Landscape - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701		9,554.0289	9,554.0289	3.0789		9,631.0007
Total	4.6408	47.6741	49.5504	0.0989		2.0314	2.0314		1.8701	1.8701		9,554.0289	9,554.0289	3.0789		9,631.0007

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4415	12.9516	60.9951	0.0989		0.1749	0.1749		0.1749	0.1749	0.0000	9,554.0289	9,554.0289	3.0789		9,631.0007
Total	1.4415	12.9516	60.9951	0.0989		0.1749	0.1749		0.1749	0.1749	0.0000	9,554.0289	9,554.0289	3.0789		9,631.0007

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.10 Pool Area - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889		3,131.4021	3,131.4021	0.7333		3,149.7339
Total	1.5742	14.3191	15.8977	0.0327		0.6194	0.6194		0.5889	0.5889		3,131.4021	3,131.4021	0.7333		3,149.7339

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.4365	2.9107	19.0911	0.0327		0.0592	0.0592		0.0592	0.0592	0.0000	3,131.4021	3,131.4021	0.7333			3,149.7339
Total	0.4365	2.9107	19.0911	0.0327		0.0592	0.0592		0.0592	0.0592	0.0000	3,131.4021	3,131.4021	0.7333			3,149.7339

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.10 Pool Area - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265		3,131.8483	3,131.8483	0.7310		3,150.1233
Total	1.5007	13.4145	15.8153	0.0327		0.5542	0.5542		0.5265	0.5265		3,131.8483	3,131.8483	0.7310		3,150.1233

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4365	2.9107	19.0911	0.0327		0.0592	0.0592		0.0592	0.0592	0.0000	3,131.8483	3,131.8483	0.7310		3,150.1233
Total	0.4365	2.9107	19.0911	0.0327		0.0592	0.0592		0.0592	0.0592	0.0000	3,131.8483	3,131.8483	0.7310		3,150.1233

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.11 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.9374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1213	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285		2,482.5996	2,482.5996	0.4759		2,494.4966
Total	9.0587	10.6463	16.4459	0.0259		0.4465	0.4465		0.4285	0.4285		2,482.5996	2,482.5996	0.4759		2,494.4966

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.9374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2898	1.2558	17.8712	0.0259		0.0386	0.0386		0.0386	0.0386	0.0000	2,482.5996	2,482.5996	0.4759		2,494.4966
Total	8.2272	1.2558	17.8712	0.0259		0.0386	0.0386		0.0386	0.0386	0.0000	2,482.5996	2,482.5996	0.4759		2,494.4966

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.12 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8959	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601		3,626.7690	3,626.7690	0.8911		3,649.0457
Paving	0.0795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.9755	17.8782	21.7018	0.0378		0.8081	0.8081		0.7601	0.7601		3,626.7690	3,626.7690	0.8911		3,649.0457

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5051	3.4192	24.9381	0.0378		0.0676	0.0676		0.0676	0.0676	0.0000	3,626.7690	3,626.7690	0.8911		3,649.0457
Paving	0.0795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.5847	3.4192	24.9381	0.0378		0.0676	0.0676		0.0676	0.0676	0.0000	3,626.7690	3,626.7690	0.8911		3,649.0457

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Harvard Westlake
Road Dust, Break Wear, and Tire wear Emissions

		Emission Factors (grams/mile)					
		PM10			PM2.5		
		RD	BW	TW	RD	BW	TW
2022Hauling Hauling	3.00E-01	0.060881142	0.03548999	7.36E-02	0.02609178	0.00887275	
2022Vendor Vendor	3.00E-01	0.09561150	0.02374434	7.36E-02	0.04097567	0.00593586	
2022Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002	
2023Hauling Hauling	3.00E-01	0.060881566	0.03548992	7.36E-02	0.02609211	0.00887240	
2023Vendor Vendor	3.00E-01	0.095610803	0.02374436	7.36E-02	0.04097608	0.00593623	
2023Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002	
2024Hauling Hauling	3.00E-01	0.060879756	0.03548867	7.36E-02	0.02609132	0.00887217	
2024Vendor Vendor	3.00E-01	0.095609887	0.02374434	7.36E-02	0.04097567	0.00593608	
2024Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002	
2025Hauling Hauling	3.00E-01	0.060871113	0.03548687	7.36E-02	0.02609019	0.00887172	
2025Vendor Vendor	3.00E-01	0.095608575	0.02374343	7.36E-02	0.0409751	0.00593586	
2025Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002	

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
Demo/Relief										
Total Haul Trips	2022	3026								
Hauling	150	21	8	32	3.17	0.64	0.38	0.78	0.28	0.09
Vendor	0	53	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	80	53	8	14.7	0.78	0.10	0.02	0.19	0.04	0.01
Demo/Relief-116 trips										
Total Haul Trips	2022	116								
Hauling	116	1	8	32	2.45	0.50	0.29	0.60	0.21	0.07
Vendor	0	1	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	80	1	8	14.7	0.78	0.10	0.02	0.19	0.04	0.01
Site Preparation-1										
Total Haul Trips	2022	1866								
Hauling	102	19	8	32	2.16	0.44	0.26	0.53	0.19	0.06
Vendor	0	27	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	80	27	8	14.7	0.78	0.10	0.02	0.19	0.04	0.01
Grading Excavation - 2022(150 Truck Trips)										
Total Haul Trips	2022	3450								
Hauling	150	23	8	32	3.17	0.64	0.38	0.78	0.28	0.09
Vendor	0	27	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	70	27	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00
Grading Excavation - 2022(300 Truck Trips)										
Total Haul Trips	2022	26100								
Hauling	300	87	8	32	6.35	1.29	0.75	1.56	0.55	0.19
Vendor	0	105	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	70	105	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00
Grading Excavation - 2023(300 Truck Trips)										
Total Haul Trips	2023	6166								
Hauling	300	22	8	32	6.35	1.29	0.75	1.56	0.55	0.19
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	70	26	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00
Grading Excavation - 2023(200 Truck Trips)										
Total Haul Trips	2023	6166								
Hauling	200	19	8	32	4.23	0.86	0.50	1.04	0.37	0.13
Vendor	0	23	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	70	23	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00
Utilities-2023										
Total Haul Trips	2023	0								
Hauling	0	285	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6	285	8	6.9	0.03	0.01	0.00	0.01	0.00	0.00
Worker	70	285	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00
Utilities-2024										
Total Haul Trips	2024	0								
Hauling	0	83	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	6	83	8	6.9	0.03	0.01	0.00	0.01	0.00	0.00
Worker	70	83	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00
Foundations-2022-No Truck Trips										
Total Haul Trips	2022	0								
Hauling	0	26	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	200	26	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Foundations-2023-No Truck Trips										
Total Haul Trips	2023	0								
Hauling	0	26	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	200	26	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Foundations-2023-100 Truck Trips										
Total Haul Trips	2023	2400								
Hauling	100	24	8	6.9	0.46	0.09	0.05	0.11	0.04	0.01
Vendor	0	24	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	200	24	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Foundations-2023-200 Truck Trips										
Total Haul Trips	2023	15800								
Hauling	200	79	8	6.9	0.91	0.19	0.11	0.22	0.08	0.03
Vendor	0	79	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	200	79	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Foundations-2023-200 Truck Trips With Vendors										
Total Haul Trips	2023	10270								
Hauling	130	79	8	6.9	0.59	0.12	0.07	0.15	0.05	0.02
Vendor	70	79	8	6.9	0.32	0.10	0.05	0.08	0.04	0.01
Worker	200	79	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Foundations-2023-300 Truck Trips										
Total Haul Trips	2023	10400								
Hauling	200	52	8	6.9	0.91	0.19	0.11	0.22	0.08	0.03
Vendor	0	52	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	200	52	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Foundations-2023-No Truck Trips										
Total Haul Trips	2023	0								
Hauling	0	26	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	200	26	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Site Preparation-2										
Total Haul Trips	2023	0								
Hauling	102	1	8	32	2.16	0.44	0.26	0.53	0.19	0.06
Vendor	0	1	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Worker	80	1	8	14.7	0.78	0.10	0.02	0.19	0.04	0.01

Harvard Westlake
Total On-Road Emissions

Harvard Westlake
Total On-Road Emissions

Construction Phase	314 Max construction days per year					Regional Emissions (pounds/day)									
	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	Total PM10	PM2.5 Dust	PM2.5 Exh	Total PM2.5
Building Construction-No Workers															
Total Haul Trips	0														
Hauling	0	184	8	32	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	184	8	6.9	15	0.14	2.73	2.17	0.01	0.26	0.01	0.26	0.07	0.01	0.08
Worker	0	184	8	14.7	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Total	0.14	2.73	2.17	0.01	0.26	0.01	0.26	0.07	0.01	0.08
Building Construction- Workers															
Total Haul Trips	0														
Hauling	0	26	8	32	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	26	8	6.9	15	0.14	2.73	2.17	0.01	0.26	0.01	0.26	0.07	0.01	0.08
Worker	200	26	8	14.7	0	0.10	0.39	5.54	0.02	2.23	0.01	2.25	0.59	0.01	0.60
					Total	0.24	3.11	7.70	0.03	2.49	0.02	2.51	0.67	0.02	0.68
Building Construction- Workers															
Total Haul Trips	0														
Hauling	0	236	8	32	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	236	8	6.9	15	0.14	2.73	2.17	0.01	0.26	0.01	0.26	0.07	0.01	0.08
Worker	200	236	8	14.7	0	0.09	0.34	5.14	0.02	2.23	0.01	2.24	0.59	0.01	0.60
					Total	0.23	3.07	7.31	0.03	2.49	0.02	2.51	0.67	0.02	0.68
Architectural Coatings-2024-1															
Total Haul Trips	0														
Hauling	0	261	8	32	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	261	8	6.9	15	0.14	2.73	2.17	0.01	0.26	0.01	0.26	0.07	0.01	0.08
Worker	280	261	8	14.7	0	0.12	0.48	7.19	0.02	3.13	0.02	3.14	0.83	0.01	0.84
					Total	0.27	3.20	9.36	0.03	3.38	0.02	3.41	0.90	0.02	0.93
Architectural Coatings-2024-2															
Total Haul Trips	0														
Hauling	0	26	8	32	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	20	26	8	6.9	15	0.07	1.36	1.08	0.00	0.13	0.00	0.13	0.04	0.00	0.04
Worker	280	26	8	14.7	0	0.12	0.48	7.19	0.02	3.13	0.02	3.14	0.83	0.01	0.84
					Total	0.20	1.84	8.28	0.03	3.25	0.02	3.27	0.87	0.02	0.88
Architectural Coatings-2024-3															
Total Haul Trips	0														
Hauling	0	23	8	32	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	23	8	6.9	15	0.04	0.68	0.54	0.00	0.06	0.00	0.07	0.02	0.00	0.02
Worker	280	23	8	14.7	0	0.12	0.48	7.19	0.02	3.13	0.02	3.14	0.83	0.01	0.84
					Total	0.16	1.16	7.73	0.03	3.19	0.02	3.21	0.85	0.02	0.86
Pavings															
Total Haul Trips	0														
Hauling	0	28	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	28	8	6.9	15	0.04	0.68	0.54	0.00	0.06	0.00	0.07	0.02	0.00	0.02
Worker	60	28	8	14.7	0	0.03	0.12	1.66	0.01	0.67	0.00	0.67	0.18	0.00	0.18
					Total	0.07	0.80	2.20	0.01	0.73	0.01	0.74	0.20	0.01	0.20

Harvard Westlake
Running Emissions

	Running Emissions Factor (grams/mile)					
	ROG	NOX	CO	SO2	PM10	PM2.5
2022Hauling Hauling	0.07069576	3.283005346	0.52362015	0.01309969	0.02927588	0.02800939
2022Vendor Vendor	0.06439637	2.426184228	0.46739825	0.01153659	0.03122146	0.02986801
2022Worker Worker	0.01792446	0.067917287	0.93327935	0.00292519	0.00190925	0.00175783
2023Hauling Hauling	0.02377658	2.452731152	0.42170679	0.01236168	0.02046423	0.01957893
2023Vendor Vendor	0.01851492	1.737977158	0.3265218	0.01098015	0.01348179	0.0128958
2023Worker Worker	0.01551769	0.059459851	0.85407903	0.00283115	0.00179863	0.00165385
2024Hauling Hauling	0.02353508	2.468234947	0.43466635	0.01217762	0.02049021	0.01960379
2024Vendor Vendor	0.01785101	1.751736035	0.31830102	0.01081482	0.01352471	0.01293687
2024Worker Worker	0.01367847	0.052648311	0.79261004	0.00274857	0.00172489	0.00158776
2025Hauling Hauling	0.02317588	2.448896637	0.44402624	0.01194087	0.02051739	0.01962979
2025Vendor Vendor	0.017195	1.742415609	0.31079731	0.01060871	0.01337741	0.01299731
2025Worker Worker	0.01198121	0.046944022	0.73683675	0.00265499	0.00164546	0.00151453
GWP	N/A	N/A	N/A	N/A	N/A	N/A

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					ROG	NOX	CO	SO2	PM10	PM2.5
<u>Building Construction-No Workers</u>										
Total Haul Trips	0									
Hauling	0	184	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	184	8	6.9	0.01	1.06	0.20	0.01	0.01	0.01
Worker	0	184	8	14.7	0.00	0.00	0.00	0.00	0.00	0.00
<u>Building Construction-Workers</u>										
Total Haul Trips	0									
Hauling	0	26	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	26	8	6.9	0.01	1.06	0.20	0.01	0.01	0.01
Worker	200	26	8	14.7	0.10	0.39	5.54	0.02	0.01	0.01
<u>Building Construction-Workers</u>										
Total Haul Trips	0									
Hauling	0	236	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	236	8	6.9	0.01	1.07	0.19	0.01	0.01	0.01
Worker	200	236	8	14.7	0.09	0.34	5.14	0.02	0.01	0.01
<u>Architectural Coatings-2024-1</u>										
Total Haul Trips	0									
Hauling	0	261	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	261	8	6.9	0.01	1.07	0.19	0.01	0.01	0.01
Worker	280	261	8	14.7	0.12	0.48	7.19	0.02	0.02	0.01
<u>Architectural Coatings-2024-2</u>										
Total Haul Trips	0									
Hauling	0	26	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	20	26	8	6.9	0.01	0.53	0.10	0.00	0.00	0.00
Worker	280	26	8	14.7	0.12	0.48	7.19	0.02	0.02	0.01
<u>Architectural Coatings-2024-3</u>										
Total Haul Trips	0									
Hauling	0	23	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	23	8	6.9	0.00	0.27	0.05	0.00	0.00	0.00
Worker	280	23	8	14.7	0.12	0.48	7.19	0.02	0.02	0.01
<u>Paving</u>										
Total Haul Trips	0									
Hauling	0	28	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	28	8	6.9	0.00	0.26	0.05	0.00	0.00	0.00
Worker	60	28	8	14.7	0.03	0.12	1.66	0.01	0.00	0.00

Harvard Westlake
Road Dust, Break Wear, and Tire wear Emissions

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2022Hauling Hauling	3.00E-01	0.060883142	0.035489099	7.36E-02	0.02609278	0.00887275
2022Vendor Vendor	3.00E-01	0.09561159	0.0237455	7.36E-02	0.0409764	0.00593637
2022Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2023Hauling Hauling	3.00E-01	0.060881566	0.03548992	7.36E-02	0.0260921	0.00887248
2023Vendor Vendor	3.00E-01	0.095610802	0.02374496	7.36E-02	0.04097606	0.00593624
2023Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2024Hauling Hauling	3.00E-01	0.060879756	0.03548867	7.36E-02	0.02609132	0.00887217
2024Vendor Vendor	3.00E-01	0.095609897	0.02374434	7.36E-02	0.04097567	0.00593608
2024Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2025Hauling Hauling	3.00E-01	0.060877113	0.03548687	7.36E-02	0.02609019	0.00887172
2025Vendor Vendor	3.00E-01	0.095608575	0.02374343	7.36E-02	0.0409751	0.00593586
2025Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)					
					PM10			PM2.5		
					RD	BW	TW	RD	BW	TW
Building Construction-No Workers										
2023	0									
Total Haul Trips	0									
Hauling	0	184	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	184	8	6.9	0.18	0.06	0.01	0.04	0.02	0.00
Worker	0	184	8	14.7	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction-Workers										
2023	0									
Total Haul Trips	0									
Hauling	0	26	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	26	8	6.9	0.18	0.06	0.01	0.04	0.02	0.00
Worker	200	26	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Building Construction-Workers										
2024	0									
Total Haul Trips	0									
Hauling	0	236	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	236	8	6.9	0.18	0.06	0.01	0.04	0.02	0.00
Worker	200	236	8	14.7	1.94	0.24	0.05	0.48	0.10	0.01
Architectural Coatings-2024-1										
2024	0									
Total Haul Trips	0									
Hauling	0	261	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	40	261	8	6.9	0.18	0.06	0.01	0.04	0.02	0.00
Worker	280	261	8	14.7	2.72	0.33	0.07	0.67	0.14	0.02
Architectural Coatings-2024-2										
2024	0									
Total Haul Trips	0									
Hauling	0	26	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	20	26	8	6.9	0.09	0.03	0.01	0.02	0.01	0.00
Worker	280	26	8	14.7	2.72	0.33	0.07	0.67	0.14	0.02
Architectural Coatings-2024-3										
2024	0									
Total Haul Trips	0									
Hauling	0	23	8	32	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	23	8	6.9	0.05	0.01	0.00	0.01	0.01	0.00
Worker	280	23	8	14.7	2.72	0.33	0.07	0.67	0.14	0.02
Pavines										
2023	0									
Total Haul Trips	0									
Hauling	0	28	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	28	8	6.9	0.05	0.01	0.00	0.01	0.01	0.00
Worker	60	28	8	14.7	0.58	0.07	0.02	0.14	0.03	0.00

Harvard Westlake
Total On-Road Emissions

Harvard Westlake
Total On-Road Emissions

Construction Phase	314 Max construction days per year					Regional Emissions (pounds/day)									
	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	ROG	NOX	CO	SO2	PM10	PM10	Total PM10	PM2.5	PM2.5	Total PM2.5
										Dust	Exh		Dust	Exh	
<u>Landscape-2023</u>	2023														
Total Haul Trips	4680														
Hauling	60	78	8	6.9	15	0.40	6.93	5.94	0.02	0.36	0.02	0.38	0.10	0.02	0.12
Vendor	20	78	8	6.9	15	0.07	1.36	1.08	0.00	0.13	0.00	0.13	0.04	0.00	0.04
Worker	0	78	8	14.7	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Total	0.47	8.30	7.02	0.02	0.49	0.03	0.51	0.14	0.02	0.16
<u>Landscape-2024-1-no workers</u>	2024														
Total Haul Trips	14100														
Hauling	60	235	8	6.9	15	0.40	6.94	5.97	0.02	0.36	0.02	0.38	0.10	0.02	0.12
Vendor	20	235	8	6.9	15	0.07	1.36	1.08	0.00	0.13	0.00	0.13	0.04	0.00	0.04
Worker	0	235	8	14.7	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Total	0.47	8.30	7.05	0.02	0.49	0.03	0.51	0.14	0.02	0.16
<u>Landscape-2024-1-with workers</u>	2024														
Total Haul Trips	1620														
Hauling	60	27	8	6.9	15	0.40	6.94	5.97	0.02	0.36	0.02	0.38	0.10	0.02	0.12
Vendor	20	27	8	6.9	15	0.07	1.36	1.08	0.00	0.13	0.00	0.13	0.04	0.00	0.04
Worker	200	27	8	14.7	0	0.09	0.34	5.14	0.02	2.23	0.01	2.24	0.59	0.01	0.60
					Total	0.56	8.64	12.19	0.04	2.72	0.04	2.76	0.73	0.03	0.76
<u>Landscape-2024-2</u>	2024														
Total Haul Trips	780														
Hauling	30	26	8	6.9	15	0.20	3.47	2.98	0.01	0.18	0.01	0.19	0.05	0.01	0.06
Vendor	10	26	8	6.9	15	0.04	0.68	0.54	0.00	0.06	0.00	0.07	0.02	0.00	0.02
Worker	200	26	8	14.7	0	0.09	0.34	5.14	0.02	2.23	0.01	2.24	0.59	0.01	0.60
					Total	0.32	4.49	8.66	0.03	2.48	0.02	2.50	0.66	0.02	0.68
<u>Landscape-2024-3</u>	2024														
Total Haul Trips	0														
Hauling	0	26	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	26	8	6.9	15	0.04	0.68	0.54	0.00	0.06	0.00	0.07	0.02	0.00	0.02
Worker	200	26	8	14.7	0	0.09	0.34	5.14	0.02	2.23	0.01	2.24	0.59	0.01	0.60
					Total	0.12	1.02	5.68	0.02	2.30	0.01	2.31	0.61	0.01	0.62
<u>Landscape-2025</u>	2025														
Total Haul Trips	0														
Hauling	0	0	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0	0	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0	0	8	14.7	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<u>Pool-2023</u>	2023														
Total Haul Trips	2550														
Hauling	50	51	8	6.9	15	0.33	5.78	4.95	0.02	0.30	0.02	0.32	0.08	0.02	0.10
Vendor	20	51	8	6.9	15	0.07	1.36	1.08	0.00	0.13	0.00	0.13	0.04	0.00	0.04
Worker	0	51	8	14.7	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Total	0.40	7.14	6.03	0.02	0.43	0.02	0.45	0.12	0.02	0.14
<u>Pool-2024-1</u>	2024														
Total Haul Trips	13100														
Hauling	50	262	8	6.9	15	0.33	5.78	4.97	0.02	0.30	0.02	0.32	0.08	0.02	0.10
Vendor	20	262	8	6.9	15	0.07	1.36	1.08	0.00	0.13	0.00	0.13	0.04	0.00	0.04
Worker	0	262	8	14.7	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Total	0.40	7.14	6.06	0.02	0.43	0.02	0.45	0.12	0.02	0.14
<u>Pool-2024-2</u>	2024														
Total Haul Trips	650														
Hauling	25	26	8	6.9	15	0.17	2.89	2.49	0.01	0.15	0.01	0.16	0.04	0.01	0.05
Vendor	10	26	8	6.9	15	0.04	0.68	0.54	0.00	0.06	0.00	0.07	0.02	0.00	0.02
Worker	0	26	8	14.7	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Total	0.20	3.57	3.03	0.01	0.21	0.01	0.23	0.06	0.01	0.07
<u>Pool-2024-3</u>	2024														
Total Haul Trips	0														
Hauling	0	26	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	10	26	8	6.9	15	0.04	0.68	0.54	0.00	0.06	0.00	0.07	0.02	0.00	0.02
Worker	0	26	8	14.7	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					Total	0.04	0.68	0.54	0.00	0.06	0.00	0.07	0.02	0.00	0.02

Harvard Westlake
Total On-Road Emissions

Harvard Westlake
Total On-Road Emissions

Construction Phase	314 Max construction days per year					Regional Emissions (pounds/day)										
	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	ROG	NOX	CO	SO2	PM10 Dust	PM10 Exh	PM10 Total	PM2.5 Dust	PM2.5 Exh	PM2.5 Total	
Demolition																
Total Haul Trips	2022															
Total Haul Trips	3026															
Hauling	150	21	8	32	10	1.37	43.31	14.19	0.15	4.19	0.31	4.51	1.15	0.30	1.45	
Vendor	0	53	8	6.9	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	80	53	8	14.7	0	0.05	0.18	2.42	0.01	0.89	0.00	0.90	0.24	0.00	0.24	
Total						1.42	43.49	16.61	0.16	5.09	0.32	5.41	1.39	0.31	1.69	
Demolition-116 truck trips																
Total Haul Trips	2022															
Total Haul Trips	1866															
Hauling	116	1	8	32	10	1.06	33.50	10.97	0.12	3.24	0.24	3.49	0.89	0.23	1.12	
Vendor	0	1	8	6.9	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	80	1	8	14.7	0	0.05	0.18	2.42	0.01	0.89	0.00	0.90	0.24	0.00	0.24	
Total						1.11	33.67	13.39	0.13	4.14	0.25	4.38	1.13	0.24	1.36	
Site Preparation-1																
Total Haul Trips	2022															
Total Haul Trips	1866															
Hauling	102	19	8	32	10	0.93	29.45	9.65	0.10	2.85	0.21	3.07	0.78	0.20	0.99	
Vendor	0	27	8	6.9	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	80	27	8	14.7	0	0.05	0.18	2.42	0.01	0.89	0.00	0.90	0.24	0.00	0.24	
Total						0.98	29.63	12.07	0.11	3.74	0.22	3.96	1.02	0.21	1.23	
Grading Excavation - 2022(150 Truck Trips)																
Total Haul Trips	2022															
Total Haul Trips	3450															
Hauling	150	23	8	32	10	1.37	43.31	14.19	0.15	4.19	0.31	4.51	1.15	0.30	1.45	
Vendor	0	27	8	6.9	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	70	27	8	14.7	0	0.04	0.15	2.12	0.01	0.78	0.00	0.79	0.21	0.00	0.21	
Total						1.41	43.47	16.31	0.16	4.97	0.32	5.29	1.36	0.31	1.66	
Grading Excavation - 2022(300 Truck Trips)																
Total Haul Trips	2022															
Total Haul Trips	26100															
Hauling	300	87	8	32	10	2.75	86.63	28.38	0.31	8.39	0.63	9.02	2.30	0.60	2.90	
Vendor	0	105	8	6.9	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	70	105	8	14.7	0	0.04	0.15	2.12	0.01	0.78	0.00	0.79	0.21	0.00	0.21	
Total						2.79	86.78	30.50	0.31	9.17	0.63	9.80	2.50	0.61	3.11	
Grading Excavation - 2023(300 Truck Trips)																
Total Haul Trips	2023															
Total Haul Trips	6166															
Hauling	300	22	8	32	10	1.75	67.56	27.43	0.29	8.39	0.44	8.83	2.30	0.42	2.72	
Vendor	0	26	8	6.9	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	70	26	8	14.7	0	0.04	0.13	1.94	0.01	0.78	0.00	0.79	0.21	0.00	0.21	
Total						1.79	67.70	29.37	0.30	9.17	0.45	9.61	2.50	0.43	2.93	
Grading Excavation - 2023(200 Truck Trips)																
Total Haul Trips	2023															
Total Haul Trips	6166															
Hauling	200	19	8	32	10	1.17	45.04	18.29	0.19	5.59	0.29	5.88	1.53	0.28	1.81	
Vendor	0	23	8	6.9	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	70	23	8	14.7	0	0.04	0.13	1.94	0.01	0.78	0.00	0.79	0.21	0.00	0.21	
Total						1.20	45.18	20.23	0.20	6.37	0.30	6.67	1.74	0.29	2.02	
Utilities-2023																
Total Haul Trips	2023															
Total Haul Trips	0															
Hauling	0	285	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Vendor	6	285	8	6.9	15	0.02	0.41	0.33	0.00	0.04	0.00	0.04	0.01	0.00	0.01	
Worker	70	285	8	14.7	0	0.04	0.13	1.94	0.01	0.78	0.00	0.79	0.21	0.00	0.21	
Total						0.06	0.54	2.26	0.01	0.82	0.01	0.83	0.22	0.01	0.22	
Utilities-2024																
Total Haul Trips	2024															
Total Haul Trips	0															
Hauling	0	83	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Vendor	6	83	8	6.9	15	0.02	0.41	0.33	0.00	0.04	0.00	0.04	0.01	0.00	0.01	
Worker	70	83	8	14.7	0	0.03	0.12	1.80	0.01	0.78	0.00	0.79	0.21	0.00	0.21	
Total						0.05	0.53	2.12	0.01	0.82	0.01	0.83	0.22	0.00	0.22	
Foundations-2022-No Truck Trips																
Total Haul Trips	2022															
Total Haul Trips	0															
Hauling	0	26	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Vendor	0	26	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	200	26	8	14.7	0	0.12	0.44	6.05	0.02	2.23	0.01	2.25	0.59	0.01	0.60	
Total						0.12	0.44	6.05	0.02	2.23	0.01	2.25	0.59	0.01	0.60	
Foundations-2023-No Truck Trips																
Total Haul Trips	2023															
Total Haul Trips	0															
Hauling	0	26	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Vendor	0	26	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	200	26	8	14.7	0	0.10	0.39	5.54	0.02	2.23	0.01	2.25	0.59	0.01	0.60	
Total						0.10	0.39	5.54	0.02	2.23	0.01	2.25	0.59	0.01	0.60	
Foundations-2023-100 Truck Trips																
Total Haul Trips	2023															
Total Haul Trips	2400															
Hauling	100	24	8	6.9	15	0.66	11.56	9.90	0.03	0.60	0.04	0.64	0.17	0.03	0.20	
Vendor	0	24	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	200	24	8	14.7	0	0.10	0.39	5.54	0.02	2.23	0.01	2.25	0.59	0.01	0.60	
Total						0.76	11.94	15.43	0.05	2.84	0.05	2.88	0.76	0.04	0.80	
Foundations-2023-200 Truck Trips																
Total Haul Trips	2023															
Total Haul Trips	15800															
Hauling	200	79	8	6.9	15	1.32	23.12	19.79	0.07	1.21	0.07	1.28	0.33	0.07	0.40	
Vendor	0	79	8	6.9	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	200	79	8	14.7	0	0.10	0.39	5.54	0.02	2.23	0.01	2.25	0.59	0.01	0.60	
Total						1.42										

**Harvard Westlake
Road Dust, Break Wear, and Tire wear Emissions**

	Emission Factors (grams/mile)					
	PM10			PM2.5		
	RD	BW	TW	RD	BW	TW
2022Hauling Hauling	3.00E-01	0.060883142	0.03549099	7.36E-02	0.02609278	0.00887275
2022Vendor Vendor	3.00E-01	0.09561159	0.0237455	7.36E-02	0.0409764	0.00593637
2022Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2023Hauling Hauling	3.00E-01	0.060881566	0.03548992	7.36E-02	0.0260921	0.00887248
2023Vendor Vendor	3.00E-01	0.095610802	0.02374496	7.36E-02	0.04097606	0.00593624
2023Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2024Hauling Hauling	3.00E-01	0.060879756	0.03548867	7.36E-02	0.02609132	0.00887217
2024Vendor Vendor	3.00E-01	0.095609897	0.02374434	7.36E-02	0.04097567	0.00593608
2024Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002
2025Hauling Hauling	3.00E-01	0.060877113	0.03548687	7.36E-02	0.02609019	0.00887172
2025Vendor Vendor	3.00E-01	0.095608575	0.02374343	7.36E-02	0.0409751	0.00593586
2025Worker Worker	3.00E-01	0.036750011	0.008	7.36E-02	0.01575	0.002

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (pounds/day)						
					RD	PM10 BW	TW	RD	PM2.5 BW	TW	
<u>Demolition</u>	2022										
Total Haul Trips	3026										
Hauling	150	21	8	32	3.17	0.64	0.38	0.78	0.28	0.09	
Vendor	0	53	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	80	53	8	14.7	0.78	0.10	0.02	0.19	0.04	0.01	
<u>Demolition-116 truck trips</u>	2022										
Total Haul Trips	1866										
Hauling	116	1	8	32	2.45	0.50	0.29	0.60	0.21	0.07	
Vendor	0	1	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	80	1	8	14.7	0.78	0.10	0.02	0.19	0.04	0.01	
<u>Site Preparation-1</u>	2022										
Total Haul Trips	1866										
Hauling	102	19	8	32	2.16	0.44	0.26	0.53	0.19	0.06	
Vendor	0	27	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	80	27	8	14.7	0.78	0.10	0.02	0.19	0.04	0.01	
<u>Grading Excavation - 2022(150 Truck Trips)</u>	2022										
Total Haul Trips	3450										
Hauling	150	23	8	32	3.17	0.64	0.38	0.78	0.28	0.09	
Vendor	0	27	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	70	27	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00	
<u>Grading Excavation - 2022(300 Truck Trips)</u>	2022										
Total Haul Trips	26100										
Hauling	300	87	8	32	6.35	1.29	0.75	1.56	0.55	0.19	
Vendor	0	105	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	70	105	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00	
<u>Grading Excavation - 2023(300 Truck Trips)</u>	2023										
Total Haul Trips	6166										
Hauling	300	22	8	32	6.35	1.29	0.75	1.56	0.55	0.19	
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	70	26	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00	
<u>Grading Excavation - 2023(200 Truck Trips)</u>	2023										
Total Haul Trips	6166										
Hauling	200	19	8	32	4.23	0.86	0.50	1.04	0.37	0.13	
Vendor	0	23	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Worker	70	23	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00	
<u>Utilities-2023</u>	2023										
Total Haul Trips	0										
Hauling	0	285	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Vendor	6	285	8	6.9	0.03	0.01	0.00	0.01	0.00	0.00	
Worker	70	285	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00	
<u>Utilities-2024</u>	2024										
Total Haul Trips	0										
Hauling	0	83	8	6.9	0.00	0.00	0.00	0.00	0.00	0.00	
Vendor	6	83	8	6.9	0.03	0.01	0.00	0.01	0.00	0.00	
Worker	70	83	8	14.7	0.68	0.08	0.02	0.17	0.04	0.00	

Harvard Westlake Road Dust

Paved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,P} = (k (sL)^{0.91} \times (W)^{1.02})$

Where:

- $EF_{Dust,P}$ = Paved Road Dust Emission Factor (having the same units as k)
- k = particle size multiplier
- sL = road surface silt loading (g/m^2)
- W = average fleet vehicle weight (tons) (CARB uses 2.4 tons as a fleet average vehicle weight factor)

	Emission Factor (grams per VMT)	
	PM10	PM2.5
k	0.9979	0.2449
sL	0.1	0.1
W	2.4	2.4
$EF_{Dust,P}$	3.00E-01	7.36E-02

Unpaved Road Dust Emission Factors (Assumes No Precipitation)

Formula: $EF_{Dust,U} = (k (s / 12)^1 \times (Sp / 30)^{0.5} / (M / 0.5)^{0.2}) - C$

Where:

- $EF_{Dust,U}$ = Unpaved Road Dust Emission Factor (having the same units as k)
- k = particle size multiplier
- s = surface material silt content (%)
- Sp = mean vehicle speed (mph)
- M = surface material moisture content (%)
- C = Emission Factor for 1980s vehicle fleet exhaust, brake wear, and tire wear

	Emission Factor (grams per VMT)	
	PM10	PM2.5
k	816.47	81.65
s	4.3%	4.3%
Sp	15	15
M	0.5%	0.5%
C	0.00047	0.00036
$EF_{Dust,U}$	5.20E+00	5.19E-01

Sources:

SCAQMD, CalEEMod, Version 2011.1.

CARB, *Entrained Dust from Paved Road Travel: Emission Estimation Methodology Background Document*, (1997).

USEPA, *AP-42*, Fifth Edition, Volume I, Chapter 13.2.1 - Paved Roads, (2011).

ESA, 2021.

1.b) Operational Modeling Outputs

- (1) Emissions Summaries and Miscellaneous Calculations
- (2) Project without GHG Reduction Measures
 - Annual
- (3) Project with GHG Reduction Measures
 - Annual

**Harvard Westlake
Air Quality Assessment**

Localized Operational Emissions

Maximum Unmitigated Localized Operational Emissions (pounds per day)^a

Source	NO_x	CO	PM₁₀	PM_{2.5}
Area (Consumer Products, Landscaping)	7.50E-04	8.28E-02	2.90E-04	2.90E-04
Energy (Natural Gas)	0.47	0.39	0.04	0.04
Total Project On-Site Emissions	0.47	0.47	0.04	0.04
SCAQMD Numeric Indicators	172.0	1434.0	4.0	2.0
Over/(Under)	(172)	(1434)	(4.0)	(2.0)
Exceeds Thresholds?	No	No	No	No

Localized significance thresholds from SCAQMD Look-Up tables, conservatively used 5-acre site in East San Fernando Valley (SRA 7) with the nearest sensitive receptor within 25 meters from the Site.

Net Localized Operational Emissions

Maximum Unmitigated Localized Operational Emissions (pounds per day)^a

Source	NO_x	CO	PM₁₀	PM_{2.5}
Area (Consumer Products, Landscaping)	5.30E-04	0.06	2.00E-04	2.00E-04
Energy (Natural Gas)	0.46	0.39	0.04	0.04
Total Project On-Site Emissions	0.46	0.45	0.04	0.04
SCAQMD Numeric Indicators	172	1434	4.0	2.0
Over/(Under)	(172)	(1434)	(4.0)	(2.0)
Exceeds Thresholds?	No	No	No	No

Localized significance thresholds from SCAQMD Look-Up tables, conservatively used 5-acre site in East San Fernando Valley (SRA 7) with the nearest sensitive receptor within 25 meters from the Site.

Harvard Westlake
Air Quality Assessment

Existing Operational Emissions

Estimated Existing Operational Emissions (pounds per day) ^a

Source	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area (Consumer Products, Landscaping)	1.23E-01	2.20E-04	2.37E-02	0.00E+00	9.00E-05	9.00E-05
Energy (Natural Gas)	2.90E-04	2.67E-03	2.24E-03	2.00E-05	2.00E-04	2.00E-04
Motor Vehicles	2.17	5	20	0.05	4.7	1.31
Existing Total Emissions	2	5	20	<1	4.7	1

CO Hotspot Analysis

Int	North/South	East/West	PM Individual Peak Hour												TOTAL
			1	2	3	4	5	6	7	8	9	10	11	12	
1	Whitsett Av	Moorpark St	134	478	71	88	568	99	134	704	117	151	791	135	3,470
2	Whitsett Av	Valley Spring Ln	6	677	33	64	2	10	20	875	25	29	1	4	1,746
3	Whitsett Av	Ventura Bl	208	162	248	298	983	40	14	170	112	193	1,016	287	3,731
4	Coldwater Canyon Ave	Moorpark St	141	865	125	114	602	98	177	1,000	70	41	648	110	3,991
5	Coldwater Canyon Ave	Ventura Blvd	308	462	353	200	973	146	262	810	295	171	1,087	281	5,348
DX1	Whitsett Av	North Driveway	56	705	0	0	0	0	0	950	10	1	0	10	1,732
DX2	Whitsett Av	South Driveway	31	675	0	0	0	0	0	957	28	15	0	3	1,709

ADT

34700	100,000 vehicles	
17460	1 hr	8 hr
37310		4.6 3.2
39910	Project CO	
53480	1 hr	8 hr
17320		2.5 1.7
17090		
53480	Background Table IV.B-3	
		3.4 2.5
Total		5.9 4.2

0.5348

Harvard Westlake
 Air Quality and GHG Assessment
 Operational Mobile Emissions

	Year	Max Daily VMT	Annual VMT	Criteria Pollutant Emission Factors (lb/mile)									Criteria Pollutant Emissions (pounds/day)									GHG Emissions (metric tons/year)					
				ROG	NOx	CO	SOx	PM10 Road Dust	PM10	PM10 Total	PM2.5 Road Dust	PM2.5	PM2.5 Total	ROG	NOx	CO	SOx	PM10 Road Dust	PM10	PM10 Total	PM2.5 Road Dust	PM2.5	PM2.5 Total	CO2 1	CH4 25	N2O 298	CO2e
Existing	2020	6,030	2,200,950	3.59E-04	7.76E-04	3.25E-03	8.51E-06	6.61E-04	1.23E-04	7.84E-04	1.62E-04	5.56E-05	2.18E-04	2.17	4.68	19.59	0.05	3.99	0.74	4.73	0.98	0.34	1.31	874.13	0.06	0.05	890.35
Project	2025	48,370	3,958,345	2.65E-04	4.74E-04	2.39E-03	7.37E-06	6.61E-04	1.17E-04	7.78E-04	1.62E-04	4.94E-05	2.12E-04	12.84	22.90	115.75	0.36	31.98	5.64	37.62	7.85	2.39	10.24	1,395.89	0.08	0.08	1,420.32
Project - Without GHG Reductions Scenario	2025	48,370	5,196,809	2.65E-04	4.74E-04	2.39E-03	7.37E-06	6.61E-04	1.17E-04	7.78E-04	1.62E-04	4.94E-05	2.12E-04	12.84	22.90	115.75	0.36	31.98	5.64	37.62	7.85	2.39	10.24	1,832.63	0.11	0.10	1,864.70

Source: Fehr & Peers, Transportation Assessment for the Harvard-Westlake River Park Project, March 2021.

VMT for Average Academic Year Weekday

Population Group	Daily Trip Gen	Trip Length (mi)	Total Daily VMT	Trip Gen Note	Trip Length Note	CallEMod	Trip Category	Default CallEMod	Trip Length	Trip Generation
Proposed Project										
HW Shuttles - Both directions	98	1.5	87	Trip gen is based on average school day from HW data	Trip length is for one-way trip between HW Upper School and River Park					
HW Private Vehicles - Inbound	43	1.5	65	Trip gen is based on average school day from HW data	Trip length is for one-way trip between HW Upper School and River Park			8.4	8.4	HW Drive
HW Private Vehicles - Outbound	43	0.0	0	Trip gen is based on average school day from HW data	Difference in trip length between zip codes and River Park vs HW Upper School			c-c	c-c	Non-HW Drive
HW Other	132	12.9	1,703	Trip gen is based on average school day from HW data	Trip length is weighted average for HW student zip codes			8.4	8.4	
Employees	98	13.3	1,303	Trip gen is based on employee data from HW AVO of 1, no TNC	Trip length is based on HW employee zip codes			16.6	16.6	
HW Special Events	66	12.9	851	Trip gen is based on 15 weekday events averaged across school days, using AVO of 1.5, 10% TNC	Trip length is weighted average for HW student zip codes			c-c	8.4	
Existing Use Credit										
Weddington	-1022	5.9	-6,030	Trip gen is based on daily vehicle counts collected at Weddington Golf & Tennis	Trip length based on Weddington Tennis zip codes					
Existing VMT Credit			-6,030							
Net Total VMT			-2,021							
Net Total VMT for TA										

Other VMT (Exemptions not for TA)				Trip Gen Note	Trip Length Note
Community Use	Daily Trip Gen	Trip Length (mi)	Daily VMT		
Community Use	1,248	5.9	7,363	Trip gen is based on ITE for Tennis Courts (490) and Recreational Community Center (495)	Trip length based on Weddington Tennis zip codes
Community Events	Trip Gen per Event	Trip Length (mi)	VMT Per Event		
Community Events	354	5.9	4,331	Trip gen is based on a 500 attendee event using an AVO of 1.5, 10% TNC	Trip length based on Weddington Tennis zip codes
HW Special Events	Trip Gen per Event	Trip Length (mi)	VMT Per Event		
HW Special Events	54	12.9	703	Trip gen is based on 27 events of 500 attendees and 3 events of 2,000 attendees using an AVO of 1.5, 10% TNC	Trip length is weighted average for HW student zip codes

	Project Scenario	Project Without Reduction Features Scenario
Annual VMT	1,855	2,318
HW Daily	404,350	505,411
Employees Daily	1,300	1,627
Employees Annual	475,595	593,782
HW + Employee Subtotal Daily	3,154	3,943
HW + Employee Subtotal Annual	878,946	1,095,193
Community Use Daily	7,363	10,483
Community Use Annual	2,687,495	3,826,368
Max HW Special Event VMT	37,849	
HW Special Events Per Year	90	
HW Special Event VMT Per Year	369,210	240,420
Max Community Event VMT	4,331	
Community Events Per Year	5	
Community Events VMT Per Year	21,655	30,828
Max Day AQ	48.376	
Max Annual GHG	3,958,345	5,196,809

Average Academic Year Weekday	Inbound	Outbound	Total
Shuttles	29	29	58
HW Drive	43	43	86
Non-HW Drive	66	66	132
	adjusted for TNC		

Trip Lengths	Miles	Notes
One-way HW Upper School - River Park	1.5	Google Maps
One-way Zip codes to HW Upper School	12.9	Student zip code data from David, GIS network analyst to determine weighted average trip length
One-way Zip codes to River Park	12.9	Student zip code data from David, GIS network analyst to determine weighted average trip length
One-Way Weddington Trip Length	5.9	Weddington Tennis zip code data from David
One-Way Employees to River Park	13.3	Employee zip code data from David, GIS network analyst to determine weighted average trip length

HW Special Events	Days in school year	# per School Year	Annual Trips	Avg Daily Trips	Trip Length	Daily VMT
8.4 Average Academic Year Weekday	218	15	14,300	66	12.9	851
15 Events Spread out Across School Year						
8.4 Average HW Special Event (not for TA)	# per Year	Attendee/Event	Trips/Event	Trip Length (mi)	VMT per event	Annual VMT
8.4 Smaller Events	27	500	754	12.9	9,469	315,663
Larger Events	3	2,000	2,934	12.9	37,849	113,547
Average Events	30	650	954		12,307	241,451

Community Events (not for TA)	# per Year	Attendee/Event	Trips/Event	Trip Length (mi)	VMT per event	Annual VMT
Community Events	5	500	754	5.9	4,331	21,655

rounding factor for trip length	1
rounding factor for VMT	0
Event Attendee AVO	1.5
TNC Factor	10%

Harvard Westlake - Operations - South Coast AQMD Air District, Summer

**Harvard Westlake - Operations
South Coast AQMD Air District, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking Structure	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	626.48	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor linearly adjusted to account for SB100 RPS by year 2025.

Land Use - Existing uses to remain not included. See operational assumptions.

Construction Phase -

Vehicle Trips - operational mobile emissions calculated outside of CalEEMod.

Area Coating - see operational assumptions

Energy Use - accounts for 2019 Title 24 standards. Health Club Non-Title 24 Natural Gas usage to account for pool heating and parking lot lighting assumed for certain uses to account for general lighting. see operational assumptions.

Water And Wastewater - Operational water demand from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Solid Waste - Solid waste values for Project uses from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Waste Mitigation - City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013). Citywide 76% MSW diversion.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	58777	128809
tblAreaCoating	Area_Nonresidential_Interior	176331	386426
tblAreaCoating	Area_Parking	24040	15636
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	NT24NG	0.00	4.45
tblEnergyUse	T24E	3.92	3.50
tblEnergyUse	T24E	4.60	4.11
tblEnergyUse	T24E	2.25	2.01
tblEnergyUse	T24E	0.65	0.58
tblEnergyUse	T24NG	10.02	9.92
tblEnergyUse	T24NG	13.65	13.51
tblEnergyUse	T24NG	0.84	0.83
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60
tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30

tblLandUse	LotAcreage	4.53	1.00
tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10
tblProjectCharacteristics	CO2IntensityFactor	1227.89	626.48
tblSolidWaste	SolidWasteGenerationRate	0.91	0.00
tblSolidWaste	SolidWasteGenerationRate	0.17	0.00
tblSolidWaste	SolidWasteGenerationRate	524.12	160.00
tblSolidWaste	SolidWasteGenerationRate	72.22	0.00
tblSolidWaste	SolidWasteGenerationRate	23.89	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	31,992.07	2,102.00
tblWater	IndoorWaterUseRate	5,438,212.09	9,182,232.00
tblWater	IndoorWaterUseRate	749,343.63	0.00
tblWater	IndoorWaterUseRate	5,878,375.00	26,280.00

tblWater	OutdoorWaterUseRate	12,641,617.12	3,300,000.00
tblWater	OutdoorWaterUseRate	0.00	1,813,320.00
tblWater	OutdoorWaterUseRate	19,608.05	0.00
tblWater	OutdoorWaterUseRate	3,333,097.74	0.00
tblWater	OutdoorWaterUseRate	459,275.13	178,704.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Energy	0.0512	0.4651	0.3907	2.7900e-003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.2262	0.4659	0.4735	2.8000e-003	0.0000	0.0356	0.0356	0.0000	0.0356	0.0356		558.3088	558.3088	0.0112	0.0102	561.6371

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Energy	0.0512	0.4651	0.3907	2.7900e-003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.2262	0.4659	0.4735	2.8000e-003	0.0000	0.0356	0.0356	0.0000	0.0356	0.0356		558.3088	558.3088	0.0112	0.0102	561.6371

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Enclosed Parking Structure	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
General Office Building	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Health Club	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Other Non-Asphalt Surfaces	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Parking Lot	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Recreational Swimming Pool	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Unrefrigerated Warehouse-No Rail	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0512	0.4651	0.3907	2.7900e- 003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476
NaturalGas Unmitigated	0.0512	0.4651	0.3907	2.7900e- 003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	5.08438	5.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.5982	0.5982	1.0000e-005	1.0000e-005	0.6017
Health Club	4524.64	0.0488	0.4436	0.3726	2.6600e-003		0.0337	0.0337		0.0337	0.0337		532.3107	532.3107	0.0102	9.7600e-003	535.4739
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	154.494	1.6700e-003	0.0152	0.0127	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003		18.1758	18.1758	3.5000e-004	3.3000e-004	18.2838
Unrefrigerated Warehouse-No Pk	59.8937	6.5000e-004	5.8700e-003	4.9300e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		7.0463	7.0463	1.4000e-004	1.3000e-004	7.0882
Total		0.0512	0.4651	0.3907	2.7900e-003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.00508438	5.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.5982	0.5982	1.0000e-005	1.0000e-005	0.6017
Health Club	4.52464	0.0488	0.4436	0.3726	2.6600e-003		0.0337	0.0337		0.0337	0.0337		532.3107	532.3107	0.0102	9.7600e-003	535.4739
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.154494	1.6700e-003	0.0152	0.0127	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003		18.1758	18.1758	3.5000e-004	3.3000e-004	18.2838
Unrefrigerated Warehouse-No Fuel	0.0598937	6.5000e-004	5.8700e-003	4.9300e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		7.0463	7.0463	1.4000e-004	1.3000e-004	7.0882
Total		0.0512	0.4651	0.3907	2.7900e-003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Unmitigated	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6741					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6200e-003	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Total	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6741					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6200e-003	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Total	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Harvard Westlake - Operations - South Coast AQMD Air District, Winter

Harvard Westlake - Operations
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking Structure	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	626.48	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor linearly adjusted to account for SB100 RPS by year 2025.

Land Use - Existing uses to remain not included. See operational assumptions.

Construction Phase -

Vehicle Trips - operational mobile emissions calculated outside of CalEEMod.

Area Coating - see operational assumptions

Energy Use - accounts for 2019 Title 24 standards. Health Club Non-Title 24 Natural Gas usage to account for pool heating and parking lot lighting assumed for certain uses to account for general lighting. see operational assumptions.

Water And Wastewater - Operational water demand from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Solid Waste - Solid waste values for Project uses from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Waste Mitigation - City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013). Citywide 76% MSW diversion.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	58777	128809
tblAreaCoating	Area_Nonresidential_Interior	176331	386426
tblAreaCoating	Area_Parking	24040	15636
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	NT24NG	0.00	4.45
tblEnergyUse	T24E	3.92	3.50
tblEnergyUse	T24E	4.60	4.11
tblEnergyUse	T24E	2.25	2.01
tblEnergyUse	T24E	0.65	0.58
tblEnergyUse	T24NG	10.02	9.92
tblEnergyUse	T24NG	13.65	13.51
tblEnergyUse	T24NG	0.84	0.83
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60
tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30

tblLandUse	LotAcreage	4.53	1.00
tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10
tblProjectCharacteristics	CO2IntensityFactor	1227.89	626.48
tblSolidWaste	SolidWasteGenerationRate	0.91	0.00
tblSolidWaste	SolidWasteGenerationRate	0.17	0.00
tblSolidWaste	SolidWasteGenerationRate	524.12	160.00
tblSolidWaste	SolidWasteGenerationRate	72.22	0.00
tblSolidWaste	SolidWasteGenerationRate	23.89	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	31,992.07	2,102.00
tblWater	IndoorWaterUseRate	5,438,212.09	9,182,232.00
tblWater	IndoorWaterUseRate	749,343.63	0.00
tblWater	IndoorWaterUseRate	5,878,375.00	26,280.00

tblWater	OutdoorWaterUseRate	12,641,617.12	3,300,000.00
tblWater	OutdoorWaterUseRate	0.00	1,813,320.00
tblWater	OutdoorWaterUseRate	19,608.05	0.00
tblWater	OutdoorWaterUseRate	3,333,097.74	0.00
tblWater	OutdoorWaterUseRate	459,275.13	178,704.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Energy	0.0512	0.4651	0.3907	2.7900e-003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.2262	0.4659	0.4735	2.8000e-003	0.0000	0.0356	0.0356	0.0000	0.0356	0.0356		558.3088	558.3088	0.0112	0.0102	561.6371

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Energy	0.0512	0.4651	0.3907	2.7900e-003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.2262	0.4659	0.4735	2.8000e-003	0.0000	0.0356	0.0356	0.0000	0.0356	0.0356		558.3088	558.3088	0.0112	0.0102	561.6371

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Enclosed Parking Structure	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
General Office Building	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Health Club	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Other Non-Asphalt Surfaces	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Parking Lot	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Recreational Swimming Pool	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Unrefrigerated Warehouse-No Rail	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0512	0.4651	0.3907	2.7900e- 003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476
NaturalGas Unmitigated	0.0512	0.4651	0.3907	2.7900e- 003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	5.08438	5.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.5982	0.5982	1.0000e-005	1.0000e-005	0.6017
Health Club	4524.64	0.0488	0.4436	0.3726	2.6600e-003		0.0337	0.0337		0.0337	0.0337		532.3107	532.3107	0.0102	9.7600e-003	535.4739
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	154.494	1.6700e-003	0.0152	0.0127	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003		18.1758	18.1758	3.5000e-004	3.3000e-004	18.2838
Unrefrigerated Warehouse-No Pk	59.8937	6.5000e-004	5.8700e-003	4.9300e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		7.0463	7.0463	1.4000e-004	1.3000e-004	7.0882
Total		0.0512	0.4651	0.3907	2.7900e-003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.00508438	5.0000e-005	5.0000e-004	4.2000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.5982	0.5982	1.0000e-005	1.0000e-005	0.6017
Health Club	4.52464	0.0488	0.4436	0.3726	2.6600e-003		0.0337	0.0337		0.0337	0.0337		532.3107	532.3107	0.0102	9.7600e-003	535.4739
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.154494	1.6700e-003	0.0152	0.0127	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003		18.1758	18.1758	3.5000e-004	3.3000e-004	18.2838
Unrefrigerated Warehouse-No Rail	0.0598937	6.5000e-004	5.8700e-003	4.9300e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		7.0463	7.0463	1.4000e-004	1.3000e-004	7.0882
Total		0.0512	0.4651	0.3907	2.7900e-003		0.0354	0.0354		0.0354	0.0354		558.1309	558.1309	0.0107	0.0102	561.4476

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Unmitigated	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6741					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6200e-003	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Total	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6741					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4933					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6200e-003	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895
Total	3.1751	7.5000e-004	0.0828	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1779	0.1779	4.6000e-004		0.1895

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

1.c) Existing Modeling Outputs

- Summer
- Winter

Harvard Westlake - Existing - South Coast AQMD Air District, Summer

Harvard Westlake - Existing
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.80	1000sqft	0.05	799.00	0
Other Non-Asphalt Surfaces	128.00	1000sqft	2.94	128,000.00	0
Parking Lot	89.00	Space	0.88	38,400.00	0
City Park	1.10	Acre	1.10	47,916.00	0
Golf Course	11.78	Acre	11.78	559,860.95	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12	Operational Year	2020		
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	787.02	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor linearly adjusted to account for SB100 RPS by year 2020.

Land Use - Existing uses to remain not included. See operational assumptions.

Construction Phase -

Vehicle Trips - mobile emissions calculated outside of CalEEMod.

Energy Use - Added parking lot lighting to land uses account for general lighting. See operational assumptions. Historical data box checked to account for existing uses built before 2005.

Water And Wastewater - Existing use water demand from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Solid Waste - Solid waste values for existing uses from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations

Waste Mitigation - City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013). Citywide 76% MSW diversion.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	0.00	0.88
tblEnergyUse	LightingElect	0.00	0.88
tblLandUse	LandUseSquareFeet	800.00	799.00
tblLandUse	LandUseSquareFeet	35,600.00	38,400.00
tblLandUse	LandUseSquareFeet	513,136.80	559,860.95
tblLandUse	LotAcreage	0.02	0.05
tblLandUse	LotAcreage	0.80	0.88
tblProjectCharacteristics	CO2IntensityFactor	1227.89	787.02
tblSolidWaste	SolidWasteGenerationRate	0.09	120.00
tblSolidWaste	SolidWasteGenerationRate	0.74	0.00
tblSolidWaste	SolidWasteGenerationRate	10.96	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.82	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	5.88	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	5.04	0.00
tblWater	IndoorWaterUseRate	142,187.00	47,304.00
tblWater	OutdoorWaterUseRate	1,310,629.48	0.00
tblWater	OutdoorWaterUseRate	87,146.87	0.00
tblWater	OutdoorWaterUseRate	14,035,650.30	11,332,488.00
tblWater	OutdoorWaterUseRate	0.00	488,808.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Area	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004			0.0539
Energy	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005		3.2228
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.1233	2.8900e-003	0.0259	2.0000e-005	0.0000	2.9000e-004	2.9000e-004	0.0000	2.9000e-004	2.9000e-004		3.2542	3.2542	2.0000e-004	6.0000e-005		3.2766

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Area	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004			0.0539
Energy	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005		3.2228
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.1233	2.8900e-003	0.0259	2.0000e-005	0.0000	2.9000e-004	2.9000e-004	0.0000	2.9000e-004	2.9000e-004		3.2542	3.2542	2.0000e-004	6.0000e-005		3.2766

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
General Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Golf Course	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

Other Non-Asphalt Surfaces	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Parking Lot	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228
NaturalGas Unmitigated	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	27.2317	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Total		2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228
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Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.0272317	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539
Unmitigated	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2300e-003	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539
Total	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2300e-003	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539
Total	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Harvard Westlake - Existing - South Coast AQMD Air District, Winter

Harvard Westlake - Existing
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.80	1000sqft	0.05	799.00	0
Other Non-Asphalt Surfaces	128.00	1000sqft	2.94	128,000.00	0
Parking Lot	89.00	Space	0.88	38,400.00	0
City Park	1.10	Acre	1.10	47,916.00	0
Golf Course	11.78	Acre	11.78	559,860.95	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12	Operational Year	2020		
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	787.02	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor linearly adjusted to account for SB100 RPS by year 2020.

Land Use - Existing uses to remain not included. See operational assumptions.

Construction Phase -

Vehicle Trips - mobile emissions calculated outside of CalEEMod.

Energy Use - Added parking lot lighting to land uses account for general lighting. See operational assumptions. Historical data box checked to account for existing uses built before 2005.

Water And Wastewater - Existing use water demand from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Solid Waste - Solid waste values for existing uses from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations

Waste Mitigation - City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013). Citywide 76% MSW diversion.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	0.00	0.88
tblEnergyUse	LightingElect	0.00	0.88
tblLandUse	LandUseSquareFeet	800.00	799.00
tblLandUse	LandUseSquareFeet	35,600.00	38,400.00
tblLandUse	LandUseSquareFeet	513,136.80	559,860.95
tblLandUse	LotAcreage	0.02	0.05
tblLandUse	LotAcreage	0.80	0.88
tblProjectCharacteristics	CO2IntensityFactor	1227.89	787.02
tblSolidWaste	SolidWasteGenerationRate	0.09	120.00
tblSolidWaste	SolidWasteGenerationRate	0.74	0.00
tblSolidWaste	SolidWasteGenerationRate	10.96	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.82	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	5.88	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	5.04	0.00
tblWater	IndoorWaterUseRate	142,187.00	47,304.00
tblWater	OutdoorWaterUseRate	1,310,629.48	0.00
tblWater	OutdoorWaterUseRate	87,146.87	0.00
tblWater	OutdoorWaterUseRate	14,035,650.30	11,332,488.00
tblWater	OutdoorWaterUseRate	0.00	488,808.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
General Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Golf Course	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Other Non-Asphalt Surfaces	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Parking Lot	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228
NaturalGas Unmitigated	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	27.2317	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.0272317	2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		2.9000e-004	2.6700e-003	2.2400e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.2037	3.2037	6.0000e-005	6.0000e-005	3.2228

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539
Unmitigated	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2300e-003	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539
Total	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0147					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.2300e-003	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539
Total	0.1230	2.2000e-004	0.0237	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0505	0.0505	1.4000e-004		0.0539

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Harvard Westlake Project

4. GHG Worksheets

GHG Calculation Worksheets and Model Outputs

- 1. Emissions Modeling Outputs (Annual)**
 - a) Construction**
 - b) Operations**
 - c) Existing Site**

1.a) Construction Modeling Outputs

- Emissions Summaries
- Unmitigated
- Mitigated

Harvard Westlake

Construction Annual GHG

Year	Metric Tons/Year			Total
	On-Road Mobile Sources	CalEEMod	Water + Construction Office	
2022	2,015	765.54	36	2,817
2023	2,038	3,406.98	71	5,516
2024	1,575	2,922.44	72	4,570
Total	5,628	7,095	180	12,902
Amortized - 30 years	188	236	6	430.1

Harvard Westlake
Construction GHG Analysis

Temporary Construction Trailer - Electricity							
Land Use	Square Feet	Energy Use per year (kWh)	Estimated Project Construction Duration (years)	Total Energy Use (kWh)	Construction Office GHG Emissions Total	Electricity Emission Factor (MT CO2/MWh)	Electricity Emission Factor (lbs CO2/MWh)
General Office	1,000	12,990	2.5	32,564	10.71	0.33	722.41
<small>Note: CalEEMod 2016.3.2 used to estimate energy use for temporary construction office</small>						(MT CH4/MWh)	(lbs CH4/MWh)
						1.32E-05	0.029
						(MT N2O/MWh)	(lbs N2O/MWh)
						2.80E-06	0.00617

Harvard Westlake
Construction Energy Analysis

Construction Water Energy Estimates

Project Acres 16.75
Construction Duration (years) 2.5

Source	Construction Water Use per Day (Mgal)	Total Construction Water Use (Mgal)	Total Electricity Demand from water Demand (kWh)	Annual Electricity Demand from water Demand (kWh)
Project	0.050	39,446	513,630	204,891
CalEEMod Water Electricity Factors	Electricity Intensity Factor To Supply (kWh/Mgal)	Electricity Intensity Factor To Treat (kWh/Mgal)	Electricity Intensity Factor To Distribute (kWh/Mgal)	Electricity Intensity Factor For Wastewater Treatment (kWh/Mgal)
Project	9727	111	1272	1911

Construction Water GHG Emissions Total	Electricity Emission Factor	Electricity Emission Factor
168.90	(MT CO2/MWh)	(lbs CO2/MWh)
	0.33	722.41
	(MT CH4/MWh)	(lbs CH4/MWh)
	1.32E-05	0.029
	(MT N2O/MWh)	(lbs N2O/MWh)
	2.80E-06	0.00617

Sources:

Electricity Intensity Factors - California Emissions Estimator Model (CalEEMod). Adjusted to RPS of year 2023.

Estimated construction water use assumed to be generally equivalent to landscape irrigation, based on a factor of 20.94 gallons per year per square foot of landscaped area within the Los Angeles area (Mediterranean climate), which assumes high water demand landscaping materials and an irrigation system efficiency of 85%.

Factor is therefore $(20.94 \text{ GAL/SF/year}) \times (43,560 \text{ SF/acre}) / (365 \text{ days/year}) / (0.85) = 2,940 \text{ gallons/acre/day}$, rounded up to 3,000 gallons/acre/day.

(U.S. Department of Energy, Energy Efficiency & Renewable Energy, Federal Energy Management Program. "Guidelines for Estimating Unmetered Landscaping Water Use." July 2010. Page 12, Table 4 - Annual Irrigation Factor – Landscaped Areas with High Water Requirements).

Harvard Westlake - Construction - South Coast AQMD Air District, Annual

**Harvard Westlake - Construction
South Coast AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking with Elevator	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - existing uses to remain not included modeling. See construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Trips and VMT - construction mobile emissions calculated outside of CalEEMo.d

Demolition -

Grading - see construction assumptions

Architectural Coating - see construction assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	58,777.00	128,809.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	176,331.00	386,426.00
tblArchitecturalCoating	ConstArea_Parking	24,040.00	15,636.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	310.00
tblConstructionPhase	NumDays	300.00	312.00
tblConstructionPhase	NumDays	300.00	446.00
tblConstructionPhase	NumDays	300.00	392.00
tblConstructionPhase	NumDays	300.00	365.00
tblConstructionPhase	NumDays	20.00	53.00
tblConstructionPhase	NumDays	30.00	181.00
tblConstructionPhase	NumDays	20.00	28.00

tblConstructionPhase	NumDays	10.00	27.00
tblConstructionPhase	NumDays	10.00	26.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	0.00	75.00
tblGrading	AcresOfGrading	0.00	16.75
tblGrading	AcresOfGrading	65.00	16.75
tblGrading	MaterialExported	0.00	250,000.00
tblGrading	MaterialExported	0.00	6,532.00
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60
tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30
tblLandUse	LotAcreage	4.53	1.00
tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	817.00	0.00
tblTripsAndVMT	HaulingTripNumber	1,241.00	0.00
tblTripsAndVMT	HaulingTripNumber	31,250.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	VendorTripNumber	163.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	83.00	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	53.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00
tblTripsAndVMT	WorkerTripNumber	417.00	0.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5160	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Energy	9.1000e-003	0.0828	0.0695	5.0000e-004		6.2900e-003	6.2900e-003		6.2900e-003	6.2900e-003	0.0000	1,452.0371	1,452.0371	0.0339	8.3100e-003	1,455.3599
Mobile	0.6638	3.3349	7.5897	0.0308	2.7391	0.0225	2.7616	0.7338	0.0209	0.7547	0.0000	2,855.9530	2,855.9530	0.1308	0.0000	2,859.2218
Waste						0.0000	0.0000		0.0000	0.0000	126.1203	0.0000	126.1203	7.4535	0.0000	312.4577
Water						0.0000	0.0000		0.0000	0.0000	3.8381	189.5488	193.3869	0.3987	0.0102	206.4039
Total	1.1890	3.4178	7.6696	0.0313	2.7391	0.0288	2.7679	0.7338	0.0272	0.7611	129.9584	4,497.5591	4,627.5175	8.0169	0.0185	4,833.4649

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5160	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Energy	9.1000e-003	0.0828	0.0695	5.0000e-004		6.2900e-003	6.2900e-003		6.2900e-003	6.2900e-003	0.0000	1,452.0371	1,452.0371	0.0339	8.3100e-003	1,455.3599
Mobile	0.6638	3.3349	7.5897	0.0308	2.7391	0.0225	2.7616	0.7338	0.0209	0.7547	0.0000	2,855.9530	2,855.9530	0.1308	0.0000	2,859.2218
Waste						0.0000	0.0000		0.0000	0.0000	126.1203	0.0000	126.1203	7.4535	0.0000	312.4577
Water						0.0000	0.0000		0.0000	0.0000	3.8381	189.5488	193.3869	0.3987	0.0102	206.4039
Total	1.1890	3.4178	7.6696	0.0313	2.7391	0.0288	2.7679	0.7338	0.0272	0.7611	129.9584	4,497.5591	4,627.5175	8.0169	0.0185	4,833.4649

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation-1	Site Preparation	6/30/2022	7/31/2022	6	27	
2	Demolition	Demolition	7/1/2022	8/31/2022	6	53	
3	Grading	Grading	8/1/2022	2/27/2023	6	181	
4	Foundations	Building Construction	12/2/2022	11/30/2023	6	312	
5	Utilities	Trenching	2/2/2023	4/5/2024	6	368	
6	Building Construction	Building Construction	5/1/2023	10/1/2024	6	446	
7	Site Preparation-2	Site Preparation	9/1/2023	9/30/2023	6	26	
8	Landscape	Building Construction	10/2/2023	12/31/2024	6	392	
9	Pool Area	Building Construction	11/2/2023	12/31/2024	6	365	
10	Architectural Coating	Architectural Coating	1/2/2024	12/27/2024	6	310	
11	Paving	Paving	11/1/2024	12/3/2024	6	28	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 5.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 386,426; Non-Residential Outdoor: 128,809; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation-1	Excavators	1	8.00	158	0.38
Site Preparation-1	Graders	0	8.00	187	0.41
Site Preparation-1	Off-Highway Trucks	1	4.40	402	0.38
Site Preparation-1	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-1	Scrapers	0	8.00	367	0.48
Site Preparation-1	Skid Steer Loaders	2	8.00	65	0.37
Site Preparation-1	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation-1	Trenchers	0	8.00	78	0.50
Demolition	Air Compressors	1	8.00	78	0.48
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	1	4.40	402	0.38
Demolition	Rough Terrain Forklifts	2	8.00	100	0.40
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Skid Steer Loaders	4	8.00	65	0.37
Demolition	Sweepers/Scrubbers	1	8.00	64	0.46
Demolition	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Grading	Air Compressors	2	8.00	78	0.48
Grading	Bore/Drill Rigs	2	8.00	221	0.50
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Off-Highway Trucks	2	4.40	402	0.38
Grading	Plate Compactors	0	8.00	8	0.43
Grading	Pumps	2	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Skid Steer Loaders	0	8.00	65	0.37
Grading	Sweepers/Scrubbers	1	8.00	64	0.46

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Foundations	Air Compressors	3	8.00	78	0.48
Foundations	Bore/Drill Rigs	3	8.00	221	0.50
Foundations	Cranes	2	8.00	231	0.29
Foundations	Excavators	1	8.00	158	0.38
Foundations	Forklifts	0	8.00	89	0.20
Foundations	Generator Sets	0	8.00	84	0.74
Foundations	Off-Highway Trucks	1	4.40	402	0.38
Foundations	Plate Compactors	2	8.00	8	0.43
Foundations	Pumps	3	8.00	84	0.74
Foundations	Rough Terrain Forklifts	2	8.00	100	0.40
Foundations	Skid Steer Loaders	4	8.00	65	0.37
Foundations	Sweepers/Scrubbers	0	8.00	64	0.46
Foundations	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Foundations	Welders	0	8.00	46	0.45
Utilities	Air Compressors	1	8.00	78	0.48
Utilities	Dumpers/Tenders	3	8.00	16	0.38
Utilities	Excavators	2	8.00	158	0.38
Utilities	Off-Highway Trucks	2	4.40	402	0.38
Utilities	Plate Compactors	2	8.00	8	0.43
Utilities	Rough Terrain Forklifts	2	8.00	100	0.40
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Utilities	Signal Boards	0	8.00	6	0.82
Utilities	Skid Steer Loaders	4	8.00	65	0.37
Utilities	Sweepers/Scrubbers	1	8.00	64	0.46
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	0	8.00	78	0.50
Building Construction	Air Compressors	1	8.00	78	0.48
Building Construction	Cement and Mortar Mixers	3	8.00	9	0.56
Building Construction	Concrete/Industrial Saws	0	8.00	81	0.73

Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction	Skid Steer Loaders	0	8.00	65	0.37
Building Construction	Sweepers/Scrubbers	0	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Site Preparation-2	Excavators	1	8.00	158	0.38
Site Preparation-2	Graders	1	8.00	187	0.41
Site Preparation-2	Off-Highway Trucks	1	4.40	402	0.38
Site Preparation-2	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation-2	Scrapers	2	8.00	367	0.48
Site Preparation-2	Skid Steer Loaders	4	8.00	65	0.37
Site Preparation-2	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation-2	Trenchers	1	8.00	78	0.50
Landscape	Cement and Mortar Mixers	1	8.00	9	0.56
Landscape	Cranes	2	8.00	231	0.29
Landscape	Forklifts	1	8.00	89	0.20
Landscape	Generator Sets	0	8.00	84	0.74
Landscape	Graders	1	8.00	187	0.41
Landscape	Off-Highway Trucks	1	4.40	402	0.38
Landscape	Rollers	2	8.00	80	0.38
Landscape	Rough Terrain Forklifts	3	8.00	100	0.40
Landscape	Rubber Tired Loaders	3	8.00	203	0.36
Landscape	Skid Steer Loaders	7	8.00	65	0.37
Landscape	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Landscape	Trenchers	2	8.00	78	0.50
Landscape	Welders	0	8.00	46	0.45
Pool Area	Air Compressors	1	8.00	78	0.48

Pool Area	Cement and Mortar Mixers	0	8.00	9	0.56
Pool Area	Concrete/Industrial Saws	0	8.00	81	0.73
Pool Area	Cranes	1	8.00	231	0.29
Pool Area	Forklifts	0	8.00	89	0.20
Pool Area	Generator Sets	0	8.00	84	0.74
Pool Area	Off-Highway Trucks	1	4.40	402	0.38
Pool Area	Other Construction Equipment	0	8.00	172	0.42
Pool Area	Plate Compactors	1	8.00	8	0.43
Pool Area	Pumps	1	8.00	84	0.74
Pool Area	Rough Terrain Forklifts	1	8.00	100	0.40
Pool Area	Rubber Tired Loaders	0	8.00	203	0.36
Pool Area	Skid Steer Loaders	1	8.00	65	0.37
Pool Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pool Area	Welders	0	8.00	46	0.45
Architectural Coating	Air Compressors	0	6.00	78	0.48
Architectural Coating	Concrete/Industrial Saws	2	8.00	81	0.73
Architectural Coating	Forklifts	2	8.00	89	0.20
Architectural Coating	Rough Terrain Forklifts	3	8.00	100	0.40
Paving	Air Compressors	1	8.00	78	0.48
Paving	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Plate Compactors	1	8.00	8	0.43
Paving	Pumps	1	8.00	84	0.74
Paving	Rollers	1	8.00	80	0.38
Paving	Sweepers/Scrubbers	1	8.00	64	0.46
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation-1	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	19	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundations	27	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	21	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	11	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation-2	14	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Landscape	28	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pool Area	8	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Harvard Westlake
Total On-Road Emissions

Harvard Westlake
Total On-Road Emissions

Construction Phase	314 Max construction days per year					Regional Emissions (MT/yr) Total CO2e
	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	
<u>Demolition</u>	2022					
Total Haul Trips	3026					
Hauling	150	21	8	32	15	168.96
Vendor	0	53	8	6.9	15	0.00
Worker	80	53	8	14.7	0	18.66
					Total	187.62
<u>Demolition-116 trips</u>	2022					
Total Haul Trips	116					
Hauling	116	1	8	32	15	6.48
Vendor	0	1	8	6.9	15	0.00
Worker	80	1	8	14.7	0	0.35
					Total	6.83
<u>Site Preparation-1</u>	2022					
Total Haul Trips	1866					
Hauling	102	19	8	32	15	104.19
Vendor	0	27	8	6.9	15	0.00
Worker	80	27	8	14.7	0	9.50
					Total	113.70
<u>Grading Excavation - 2022(150 Truck Trips)</u>	2022					
Total Haul Trips	3450					
Hauling	150	23	8	32	15	192.64
Vendor	0	27	8	6.9	15	0.00
Worker	70	27	8	14.7	0	8.32
					Total	200.95
<u>Grading Excavation - 2022(300 Truck Trips)</u>	2022					
Total Haul Trips	26100					
Hauling	300	87	8	32	15	1457.34
Vendor	0	105	8	6.9	15	0.00
Worker	70	105	8	14.7	0	32.34
					Total	1489.69
<u>Grading Excavation - 2023(300 Truck Trips)</u>	2023					
Total Haul Trips	6166					
Hauling	300	22	8	32	15	326.48
Vendor	0	26	8	6.9	15	0.00
Worker	70	26	8	14.7	0	7.80
					Total	334.28
<u>Grading Excavation - 2023(200 Truck Trips)</u>	2023					
Total Haul Trips	6166					
Hauling	200	19	8	32	15	326.48
Vendor	0	23	8	6.9	15	0.00
Worker	70	23	8	14.7	0	6.90
					Total	333.38
<u>Utilities-2023</u>	2023					
Total Haul Trips	0					
Hauling	0	285	8	6.9	15	0.00
Vendor	6	285	8	6.9	15	21.20
Worker	70	285	8	14.7	0	85.47
					Total	106.67
<u>Utilities-2024</u>	2024					
Total Haul Trips	0					
Hauling	0	83	8	6.9	15	0.00
Vendor	6	83	8	6.9	15	6.09
Worker	70	83	8	14.7	0	24.36
					Total	30.45
<u>Foundations-2022-No Truck Trips</u>	2022					
Total Haul Trips	0					
Hauling	0	26	8	6.9	15	0.00
Vendor	0	26	8	6.9	15	0.00
Worker	200	26	8	14.7	0	22.88
					Total	22.88
<u>Foundations-2023-No Truck Trips</u>	2023					
Total Haul Trips	0					
Hauling	0	26	8	6.9	15	0.00
Vendor	0	26	8	6.9	15	0.00
Worker	200	26	8	14.7	0	22.28
					Total	22.28
<u>Foundations-2023-100 Truck Trips</u>	2023					
Total Haul Trips	2400					
Hauling	100	24	8	6.9	15	41.19
Vendor	0	24	8	6.9	15	0.00
Worker	200	24	8	14.7	0	20.56
					Total	61.76
<u>Foundations-2023-200 Truck Trips</u>	2023					
Total Haul Trips	15800					
Hauling	200	79	8	6.9	15	271.19
Vendor	0	79	8	6.9	15	0.00
Worker	200	79	8	14.7	0	67.69
					Total	338.88
<u>Foundations-2023-200 Truck Trips With Vendors</u>	2023					
Total Haul Trips	10270					
Hauling	130	79	8	6.9	15	176.27
Vendor	70	79	8	6.9	15	68.57
Worker	200	79	8	14.7	0	67.69
					Total	312.53
<u>Foundations-2023-200 Truck Trips</u>	2023					
Total Haul Trips	10,400					
Hauling	200	52	8	6.9	15	178.51
Vendor	0	52	8	6.9	15	0.00
Worker	200	52	8	14.7	0	44.55
					Total	223.06
<u>Foundations-2023-No Truck Trips</u>	2023					
Total Haul Trips	0					
Hauling	0	26	8	6.9	15	0.00
Vendor	0	26	8	6.9	15	0.00
Worker	200	26	8	14.7	0	22.28
					Total	22.28
<u>Site Preparation-2</u>	2023					
Total Haul Trips	0					
Hauling	102	1	8	32	15	0.00
Vendor	0	1	8	6.9	15	0.00
Worker	80	1	8	14.7	0	0.34
					Total	0.34

Harvard Westlake
Running Emissions

	Running Emissions Factor (grams/mile)		
	CO2	CH4	N2O
2022Hauling Hauling	1438.05743	0.07903854	0.22834206
2022Vendor Vendor	1241.05151	0.04153519	0.17850954
2022Worker Worker	297.421819	0.00429787	0.0062225
2023Hauling Hauling	1362.03263	0.07739409	0.21269801
2023Vendor Vendor	1182.89475	0.0395565	0.16983582
2023Worker Worker	289.683893	0.00377192	0.00569037
2024Hauling Hauling	1342.36891	0.07725514	0.21372487
2024Vendor Vendor	1165.94656	0.03960974	0.16765887
2024Worker Worker	283.59381	0.0033661	0.00525653
2025Hauling Hauling	1317.8866	0.07626682	0.20957126
2025Vendor Vendor	1148.64856	0.03978177	0.16676939
2025Worker Worker	276.824153	0.00298302	0.00488481
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year)			
					CO2	CH4	N2O	CO2e
Demolition								
2022								
Total Haul Trips	3026							
Hauling	150	21	8	32	139.25	0.19	6.41	145.85
Vendor	0	53	8	6.9	0.00	0.00	0.00	0.00
Worker	80	53	8	14.7	18.54	0.01	0.11	18.66
Demolition-116 trips								
Total Haul Trips	116							
Hauling	116	1	8	32	5.34	0.01	0.25	5.59
Vendor	0	1	8	6.9	0.00	0.00	0.00	0.00
Worker	80	1	8	14.7	0.35	0.00	0.00	0.35
Site Preparation-1								
2022								
Total Haul Trips	1866							
Hauling	102	19	8	32	85.87	0.12	3.95	89.94
Vendor	0	27	8	6.9	0.00	0.00	0.00	0.00
Worker	80	27	8	14.7	9.44	0.00	0.06	9.50
Grading Excavation - 2022(150 Truck Trips)								
2022								
Total Haul Trips	3450							
Hauling	150	23	8	32	158.76	0.22	7.31	166.29
Vendor	0	27	8	6.9	0.00	0.00	0.00	0.00
Worker	70	27	8	14.7	8.26	0.00	0.05	8.32
Grading Excavation - 2022(300 Truck Trips)								
2022								
Total Haul Trips	26100							
Hauling	300	87	8	32	1201.07	1.65	55.31	1258.02
Vendor	0	105	8	6.9	0.00	0.00	0.00	0.00
Worker	70	105	8	14.7	32.13	0.01	0.19	32.34
Grading Excavation - 2023(300 Truck Trips)								
2023								
Total Haul Trips	6166							
Hauling	300	22	8	32	268.55	0.38	12.38	281.31
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00
Worker	70	26	8	14.7	7.75	0.00	0.04	7.80
Grading Excavation - 2023(200 Truck Trips)								
2023								
Total Haul Trips	4266							
Hauling	200	19	8	32	268.55	0.38	12.38	281.31
Vendor	0	23	8	6.9	0.00	0.00	0.00	0.00
Worker	70	23	8	14.7	6.86	0.00	0.04	6.90
Utilities-2022								
2022								
Total Haul Trips	0							
Hauling	0	285	8	6.9	0.00	0.00	0.00	0.00
Vendor	6	285	8	6.9	13.96	0.01	0.58	14.55
Worker	70	285	8	14.7	84.95	0.03	0.48	85.47
Utilities-2024								
2024								
Total Haul Trips	0							
Hauling	0	83	8	6.9	0.00	0.00	0.00	0.00
Vendor	6	83	8	6.9	4.01	0.00	0.17	4.18
Worker	70	83	8	14.7	24.22	0.01	0.13	24.36
Foundations-2022-No Truck Trips								
2022								
Total Haul Trips	0							
Hauling	0	26	8	6.9	0.00	0.00	0.00	0.00
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00
Worker	200	26	8	14.7	22.73	0.01	0.14	22.88
Foundations-2023-No Truck Trips								
2023								
Total Haul Trips	0							
Hauling	0	26	8	6.9	0.00	0.00	0.00	0.00
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00
Worker	200	26	8	14.7	22.14	0.01	0.13	22.28
Foundations-2023-100 Truck Trips								
2023								
Total Haul Trips	3400							
Hauling	100	24	8	6.9	22.54	0.03	1.04	23.61
Vendor	0	24	8	6.9	0.00	0.00	0.00	0.00
Worker	200	24	8	14.7	20.44	0.01	0.12	20.56
Foundations-2023-200 Truck Trips								
2023								
Total Haul Trips	15800							
Hauling	200	79	8	6.9	148.38	0.21	6.84	155.43
Vendor	0	79	8	6.9	0.00	0.00	0.00	0.00
Worker	200	79	8	14.7	67.28	0.02	0.38	67.69
Foundations-2023-200 Truck Trips With Vendor								
2023								
Total Haul Trips	10270							
Hauling	130	79	8	6.9	96.45	0.14	4.44	101.03
Vendor	70	79	8	6.9	45.14	0.04	1.88	47.05
Worker	200	79	8	14.7	67.28	0.02	0.38	67.69
Foundations-2023-200 Truck Trips								
2023								
Total Haul Trips	10400							
Hauling	200	52	8	6.9	97.67	0.14	4.50	102.31
Vendor	0	52	8	6.9	0.00	0.00	0.00	0.00
Worker	200	52	8	14.7	44.29	0.01	0.25	44.55
Foundations-2023-No Truck Trips								
2023								
Total Haul Trips	0							
Hauling	0	26	8	6.9	0.00	0.00	0.00	0.00
Vendor	0	26	8	6.9	0.00	0.00	0.00	0.00
Worker	200	26	8	14.7	22.14	0.01	0.13	22.28
Site Preparation-2								
2023								
Total Haul Trips	0							
Hauling	102	1	8	32	0.00	0.00	0.00	0.00
Vendor	0	1	8	6.9	0.00	0.00	0.00	0.00
Worker	80	1	8	14.7	0.34	0.00	0.00	0.34
Paints								
2024								
Total Haul Trips	0							
Hauling	0	28	8	6.9	0.00	0.00	0.00	0.00
Vendor	0	28	8	6.9	0.00	0.00	0.00	0.00
Worker	0	28	8	14.7	0.00	0.00	0.00	0.00

Harvard Westlake
Idling Emissions

	Idling Emissions Factor (grams/minute)		
	CO2	CH4	N2O
2022Hauling Hauling	486.5663	0.01105837	0.07681957
2022Vendor Vendor	258.490517	0.00651153	0.04053409
2022Worker Worker	0	0	0
2023Hauling Hauling	466.791389	0.01109333	0.07373941
2023Vendor Vendor	248.201759	0.0065238	0.03888991
2023Worker Worker	0	0	0
2024Hauling Hauling	461.877718	0.01113899	0.07294934
2024Vendor Vendor	245.284071	0.00652813	0.03847475
2024Worker Worker	0	0	0
2025Hauling Hauling	455.764425	0.01119366	0.07199173
2025Vendor Vendor	241.878593	0.00653364	0.03796772
2025Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (min)	Regional Emissions (MT/year)			
					CO2	CH4	N2O	CO2e
Demo/ition								
2022								
Total Haul Trips	3026							
Hauling	150	21	8	15	22.09	0.01	1.01	23.11
Vendor	0	53	8	15	0.00	0.00	0.00	0.00
Worker	80	53	8	0	0.00	0.00	0.00	0.00
Demo/ition-116 trips								
2022								
Total Haul Trips	116							
Hauling	116	1	8	15	0.85	0.00	0.04	0.89
Vendor	0	1	8	15	0.00	0.00	0.00	0.00
Worker	80	1	8	0	0.00	0.00	0.00	0.00
Site Preparation-1								
2022								
Total Haul Trips	1866							
Hauling	102	19	8	15	13.62	0.01	0.62	14.25
Vendor	0	27	8	15	0.00	0.00	0.00	0.00
Worker	80	27	8	0	0.00	0.00	0.00	0.00
Grading Excavation - 2022(150 Truck Trips)								
2022								
Total Haul Trips	3450							
Hauling	150	23	8	15	25.18	0.01	1.15	26.35
Vendor	0	27	8	15	0.00	0.00	0.00	0.00
Worker	70	27	8	0	0.00	0.00	0.00	0.00
Grading Excavation - 2022(300 Truck Trips)								
2022								
Total Haul Trips	26100							
Hauling	300	87	8	15	190.49	0.11	8.72	199.32
Vendor	0	105	8	15	0.00	0.00	0.00	0.00
Worker	70	105	8	0	0.00	0.00	0.00	0.00
Grading Excavation - 2023(300 Truck Trips)								
2023								
Total Haul Trips	6166							
Hauling	300	22	8	15	43.17	0.03	1.98	45.18
Vendor	0	26	8	15	0.00	0.00	0.00	0.00
Worker	70	26	8	0	0.00	0.00	0.00	0.00
Grading Excavation - 2023(200 Truck Trips)								
2023								
Total Haul Trips	6166							
Hauling	200	19	8	15	43.17	0.03	1.98	45.18
Vendor	0	23	8	15	0.00	0.00	0.00	0.00
Worker	70	23	8	0	0.00	0.00	0.00	0.00
Utilities-2023								
2023								
Total Haul Trips	0							
Hauling	0	285	8	15	0.00	0.00	0.00	0.00
Vendor	6	285	8	15	6.36	0.00	0.29	6.65
Worker	70	285	8	0	0.00	0.00	0.00	0.00
Utilities-2024								
2024								
Total Haul Trips	0							
Hauling	0	83	8	15	0.00	0.00	0.00	0.00
Vendor	6	83	8	15	1.83	0.00	0.08	1.92
Worker	70	83	8	0	0.00	0.00	0.00	0.00
Foundations-2022-No Truck Trips								
2022								
Total Haul Trips	0							
Hauling	0	26	8	15	0.00	0.00	0.00	0.00
Vendor	0	26	8	15	0.00	0.00	0.00	0.00
Worker	200	26	8	0	0.00	0.00	0.00	0.00
Foundations-2023-No Truck Trips								
2023								
Total Haul Trips	0							
Hauling	0	26	8	15	0.00	0.00	0.00	0.00
Vendor	0	26	8	15	0.00	0.00	0.00	0.00
Worker	200	26	8	0	0.00	0.00	0.00	0.00
Foundations-2023-100 Truck Trips								
2023								
Total Haul Trips	2400							
Hauling	100	24	8	15	16.80	0.01	0.77	17.58
Vendor	0	24	8	15	0.00	0.00	0.00	0.00
Worker	200	24	8	0	0.00	0.00	0.00	0.00
Foundations-2023-200 Truck Trips								
2023								
Total Haul Trips	15800							
Hauling	200	79	8	15	110.63	0.07	5.07	115.76
Vendor	0	79	8	15	0.00	0.00	0.00	0.00
Worker	200	79	8	0	0.00	0.00	0.00	0.00
Foundations-2023-200 Truck Trips With Vendors								
2023								
Total Haul Trips	10270							
Hauling	130	79	8	15	71.91	0.04	3.29	75.25
Vendor	70	79	8	15	20.57	0.01	0.94	21.52
Worker	200	79	8	0	0.00	0.00	0.00	0.00
Foundations-2023-300 Truck Trips								
2023								
Total Haul Trips	10400							
Hauling	200	52	8	15	72.82	0.04	3.34	76.20
Vendor	0	52	8	15	0.00	0.00	0.00	0.00
Worker	200	52	8	0	0.00	0.00	0.00	0.00
Foundations-2023-No Truck Trips								
2023								
Total Haul Trips	0							
Hauling	0	26	8	15	0.00	0.00	0.00	0.00
Vendor	0	26	8	15	0.00	0.00	0.00	0.00
Worker	200	26	8	0	0.00	0.00	0.00	0.00
Site Preparation-2								
2023								
Total Haul Trips	102							
Hauling	0	1	8	15	0.00	0.00	0.00	0.00
Vendor	0	1	8	15	0.00	0.00	0.00	0.00
Worker	80	1	8	0	0.00	0.00	0.00	0.00

Harvard Westlake
Total On-Road Emissions

Harvard Westlake
Total On-Road Emissions

Construction Phase	314 Max construction days per year					Regional Emissions (MT/yr) Total CO2e
	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	
<u>Building Construction-No Workers</u>	2023					
Total Haul Trips	0					
Hauling	0	184	8	32	15	0.00
Vendor	40	184	8	6.9	15	91.27
Worker	0	184	8	14.7	0	0.00
					Total	91.27
<u>Building Construction- Workers</u>	2023					
Total Haul Trips	0					
Hauling	0	26	8	32	15	0.00
Vendor	40	26	8	6.9	15	12.90
Worker	200	26	8	14.7	0	22.28
					Total	35.17
<u>Building Construction- Workers</u>	2024					
Total Haul Trips	0					
Hauling	0	236	8	32	15	0.00
Vendor	40	236	8	6.9	15	115.51
Worker	200	236	8	14.7	0	197.89
					Total	313.40
<u>Architectural Coatings-2024-1</u>	2024					
Total Haul Trips	0					
Hauling	0	261	8	32	15	0.00
Vendor	40	261	8	6.9	15	127.75
Worker	280	261	8	14.7	0	306.39
					Total	434.14
<u>Architectural Coatings-2024-2</u>	2024					
Total Haul Trips	0					
Hauling	0	26	8	32	15	0.00
Vendor	20	26	8	6.9	15	6.36
Worker	280	26	8	14.7	0	30.52
					Total	36.88
<u>Architectural Coatings-2024-3</u>	2024					
Total Haul Trips	0					
Hauling	0	23	8	32	15	0.00
Vendor	10	23	8	6.9	15	2.81
Worker	280	23	8	14.7	0	27.00
					Total	29.81
<u>Pavings</u>	2023					
Total Haul Trips	0					
Hauling	0	28	8	6.9	15	0.00
Vendor	10	28	8	6.9	15	3.47
Worker	60	28	8	14.7	0	7.20
					Total	10.67

Harvard Westlake
Running Emissions

	Running Emissions Factor (grams/mile)		
	CO2	CH4	N2O
2022Hauling Hauling	1438.05743	0.07903854	0.22834706
2022Vendor Vendor	1241.05151	0.04153519	0.17850954
2022Worker Worker	297.421819	0.00429787	0.0062225
2023Hauling Hauling	1361.03203	0.07739449	0.21628901
2023Vendor Vendor	1182.89475	0.0395565	0.16983582
2023Worker Worker	289.682893	0.00377192	0.00569037
2024Hauling Hauling	1342.26891	0.07722514	0.21337247
2024Vendor Vendor	1165.94656	0.03960974	0.16765887
2024Worker Worker	283.595381	0.0033661	0.00525653
2025Hauling Hauling	1317.8866	0.07825682	0.20957126
2025Vendor Vendor	1144.64896	0.03978177	0.16478939
2025Worker Worker	276.824153	0.00298302	0.00488481
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year)			
					CO2	CH4	N2O	CO2e
Building Construction-No Workers								
	2023							
Total Haul Trips	0							
Hauling	0	184	8	32	0.00	0.00	0.00	0.00
Vendor	40	184	8	6.9	60.07	0.05	2.50	62.62
Worker	0	184	8	14.7	0.00	0.00	0.00	0.00
Building Construction-Workers								
	2023							
Total Haul Trips	0							
Hauling	0	26	8	32	0.00	0.00	0.00	0.00
Vendor	40	26	8	6.9	8.49	0.01	0.35	8.85
Worker	200	26	8	14.7	22.14	0.01	0.13	22.28
Building Construction-Workers								
	2024							
Total Haul Trips	0							
Hauling	0	236	8	32	0.00	0.00	0.00	0.00
Vendor	40	236	8	6.9	75.95	0.06	3.17	79.18
Worker	200	236	8	14.7	196.77	0.06	1.06	197.89
Architectural Coatings-2024-1								
	2024							
Total Haul Trips	0							
Hauling	0	261	8	32	0.00	0.00	0.00	0.00
Vendor	40	261	8	6.9	83.99	0.07	3.50	87.56
Worker	280	261	8	14.7	304.66	0.09	1.64	306.39
Architectural Coatings-2024-2								
	2024							
Total Haul Trips	0							
Hauling	0	26	8	32	0.00	0.00	0.00	0.00
Vendor	20	26	8	6.9	4.18	0.00	0.17	4.36
Worker	280	26	8	14.7	30.35	0.01	0.16	30.52
Architectural Coatings-2024-3								
	2024							
Total Haul Trips	0							
Hauling	0	23	8	32	0.00	0.00	0.00	0.00
Vendor	10	23	8	6.9	1.85	0.00	0.08	1.93
Worker	280	23	8	14.7	26.85	0.01	0.14	27.00
Pavings								
	2023							
Total Haul Trips	0							
Hauling	0	28	8	6.9	0.00	0.00	0.00	0.00
Vendor	10	28	8	6.9	2.29	0.00	0.10	2.38
Worker	60	28	8	14.7	7.15	0.00	0.04	7.20

Harvard Westlake
Idling Emissions

	Idling Emissions Factor (grams/minute)		
	CO2	CH4	N2O
	2022Hauling Hauling	486.56663	0.01105837
2022Vendor Vendor	258.490517	0.00651153	0.04053409
2022Worker Worker	0	0	0
2023Hauling Hauling	466.791389	0.01109333	0.07371941
2023Vendor Vendor	248.001759	0.0065298	0.03888891
2023Worker Worker	0	0	0
2024Hauling Hauling	461.877718	0.01113899	0.07294934
2024Vendor Vendor	245.284071	0.00652813	0.03847475
2024Worker Worker	0	0	0
2025Hauling Hauling	455.764425	0.01119166	0.07199173
2025Vendor Vendor	241.978593	0.00653364	0.0379672
2025Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year)			
					CO2	CH4	N2O	CO2e
Building Construction-No Workers								
	2023							
Total Haul Trips	0							
Hauling	0	184	8	15	0.00	0.00	0.00	0.00
Vendor	40	184	8	15	27.38	0.02	1.25	28.64
Worker	0	184	8	0	0.00	0.00	0.00	0.00
Building Construction-Workers								
	2023							
Total Haul Trips	0							
Hauling	0	26	8	15	0.00	0.00	0.00	0.00
Vendor	40	26	8	15	3.87	0.00	0.18	4.05
Worker	200	26	8	0	0.00	0.00	0.00	0.00
Building Construction-Workers								
	2024							
Total Haul Trips	0							
Hauling	0	236	8	15	0.00	0.00	0.00	0.00
Vendor	40	236	8	15	34.73	0.02	1.58	36.34
Worker	200	236	8	0	0.00	0.00	0.00	0.00
Architectural Coatings-2024-1								
	2024							
Total Haul Trips	0							
Hauling	0	261	8	15	0.00	0.00	0.00	0.00
Vendor	40	261	8	15	38.41	0.03	1.75	40.18
Worker	280	261	8	0	0.00	0.00	0.00	0.00
Architectural Coatings-2024-2								
	2024							
Total Haul Trips	0							
Hauling	0	26	8	15	0.00	0.00	0.00	0.00
Vendor	20	26	8	15	1.91	0.00	0.09	2.00
Worker	280	26	8	0	0.00	0.00	0.00	0.00
Architectural Coatings-2024-3								
	2024							
Total Haul Trips	0							
Hauling	0	23	8	15	0.00	0.00	0.00	0.00
Vendor	10	23	8	15	0.85	0.00	0.04	0.89
Worker	280	23	8	0	0.00	0.00	0.00	0.00
Pavings								
	2023							
Total Haul Trips	0							
Hauling	0	28	8	15	0.00	0.00	0.00	0.00
Vendor	10	28	8	15	1.04	0.00	0.05	1.09
Worker	60	28	8	0	0.00	0.00	0.00	0.00

**Harvard Westlake
Total On-Road Emissions**

**Harvard Westlake
Emissions**

314 Max construction days per year

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)	Regional Emissions (MT/yr) Total CO2e
<u>Landscape-2023</u>						
	2023					
Total Haul Trips	4680					
Hauling	60	78	8	6.9	15	80.33
Vendor	20	78	8	6.9	15	19.34
Worker	0	78	8	14.7	0	0.00
					Total	99.67
<u>Landscape-2024-1-no workers</u>						
	2024					
Total Haul Trips	14100					
Hauling	60	235	8	6.9	15	239.02
Vendor	20	235	8	6.9	15	57.51
Worker	0	235	8	14.7	0	0.00
					Total	296.53
<u>Landscape-2024-1-with workers</u>						
	2024					
Total Haul Trips	1620					
Hauling	60	27	8	6.9	15	27.46
Vendor	20	27	8	6.9	15	6.61
Worker	200	27	8	14.7	0	22.64
					Total	56.71
<u>Landscape-2024-2</u>						
	2024					
Total Haul Trips	780					
Hauling	30	26	8	6.9	15	13.22
Vendor	10	26	8	6.9	15	3.18
Worker	200	26	8	14.7	0	21.80
					Total	38.20
<u>Landscape-2024-3</u>						
	2024					
Total Haul Trips	0					
Hauling	0	26	8	6.9	15	0.00
Vendor	10	26	8	6.9	15	3.18
Worker	200	26	8	14.7	0	21.80
					Total	24.98
<u>Landscape-2025</u>						
	2025					
Total Haul Trips						
Hauling	0	0	8	6.9	15	0.00
Vendor	0	0	8	6.9	15	0.00
Worker	0	0	8	14.7	0	0.00
					Total	0.00
<u>Pool-2023</u>						
	2023					
Total Haul Trips	2550					
Hauling	50	51	8	6.9	15	43.77
Vendor	20	51	8	6.9	15	12.65
Worker	0	51	8	14.7	0	0.00
					Total	56.42
<u>Pool-2024-1</u>						
	2024					
Total Haul Trips	13100					
Hauling	50	262	8	6.9	15	222.07
Vendor	20	262	8	6.9	15	64.12
Worker	0	262	8	14.7	0	0.00
					Total	286.19
<u>Pool-2024-2</u>						
	2024					
Total Haul Trips	650					
Hauling	25	26	8	6.9	15	11.02
Vendor	10	26	8	6.9	15	3.18
Worker	0	26	8	14.7	0	0.00
					Total	14.20
<u>Pool-2024-3</u>						
	2024					
Total Haul Trips	0					
Hauling	0	26	8	6.9	15	0.00
Vendor	10	26	8	6.9	15	3.18
Worker	0	26	8	14.7	0	0.00
					Total	3.18

Harvard Westlake
Running Emissions

	Running Emissions Factor (grams/mile)		
	CO2	CH4	N2O
2022Hauling Hauling	1436.05743	0.07903854	0.22834706
2022Vendor Vendor	1241.05151	0.04153519	0.17850954
2022Worker Worker	297.421819	0.00429787	0.0062225
2023Hauling Hauling	1361.03202	0.07739449	0.21628901
2023Vendor Vendor	1182.89475	0.0395565	0.16983582
2023Worker Worker	289.683893	0.00377192	0.00569037
2024Hauling Hauling	1342.26891	0.07772514	0.21337247
2024Vendor Vendor	1165.94656	0.03960974	0.16765887
2024Worker Worker	283.595381	0.0033661	0.00525653
2025Hauling Hauling	1317.8866	0.07825682	0.20957126
2025Vendor Vendor	1144.64896	0.03978177	0.16478939
2025Worker Worker	276.824153	0.00298302	0.00488481
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Regional Emissions (MT/year)			
					CO2	CH4	N2O	CO2e
Landscape-2023								
Total Haul Trips	4680							
Hauling	60	78	8	6.9	43.95	0.06	2.03	46.04
Vendor	20	78	8	6.9	12.73	0.01	0.53	13.27
Worker	0	78	8	14.7	0.00	0.00	0.00	0.00
Landscape-2024-1-no workers								
Total Haul Trips	14100							
Hauling	60	235	8	6.9	130.59	0.19	6.02	136.80
Vendor	20	235	8	6.9	37.81	0.03	1.58	39.42
Worker	0	235	8	14.7	0.00	0.00	0.00	0.00
Landscape-2024-1-with workers								
Total Haul Trips	1620							
Hauling	60	27	8	6.9	15.00	0.02	0.69	15.72
Vendor	20	27	8	6.9	4.34	0.00	0.18	4.53
Worker	200	27	8	14.7	22.51	0.01	0.12	22.64
Landscape-2024-2								
Total Haul Trips	780							
Hauling	30	26	8	6.9	7.22	0.01	0.33	7.57
Vendor	10	26	8	6.9	2.09	0.00	0.09	2.18
Worker	200	26	8	14.7	21.68	0.01	0.12	21.80
Landscape-2024-3								
Total Haul Trips	0							
Hauling	0	26	8	6.9	0.00	0.00	0.00	0.00
Vendor	10	26	8	6.9	2.09	0.00	0.09	2.18
Worker	200	26	8	14.7	21.68	0.01	0.12	21.80
Landscape-2025								
Total Haul Trips	0							
Hauling	0	0	8	6.9	0.00	0.00	0.00	0.00
Vendor	0	0	8	6.9	0.00	0.00	0.00	0.00
Worker	0	0	8	14.7	0.00	0.00	0.00	0.00
Pool-2023								
Total Haul Trips	2550							
Hauling	50	51	8	6.9	23.95	0.03	1.10	25.09
Vendor	20	51	8	6.9	8.33	0.01	0.35	8.68
Worker	0	51	8	14.7	0.00	0.00	0.00	0.00
Pool-2024-1								
Total Haul Trips	13100							
Hauling	50	262	8	6.9	121.33	0.18	5.59	127.10
Vendor	20	262	8	6.9	42.16	0.04	1.76	43.95
Worker	0	262	8	14.7	0.00	0.00	0.00	0.00
Pool-2024-2								
Total Haul Trips	650							
Hauling	25	26	8	6.9	6.02	0.01	0.28	6.31
Vendor	10	26	8	6.9	2.09	0.00	0.09	2.18
Worker	0	26	8	14.7	0.00	0.00	0.00	0.00
Pool-2024-3								
Total Haul Trips	0							
Hauling	0	26	8	6.9	0.00	0.00	0.00	0.00
Vendor	10	26	8	6.9	2.09	0.00	0.09	2.18
Worker	0	26	8	14.7	0.00	0.00	0.00	0.00

Harvard Westlake
Idling Emissions

Idling Emissions Factor (grams/minute)			
	CO2	CH4	N2O
2022Hauling Hauling	486.56663	0.01105837	0.07681957
2022Vendor Vendor	258.490517	0.00651153	0.04053409
2022Worker Worker	0	0	0
2023Hauling Hauling	466.791389	0.01109333	0.07371941
2023Vendor Vendor	248.001759	0.0065298	0.03888891
2023Worker Worker	0	0	0
2024Hauling Hauling	461.877718	0.01113899	0.07294934
2024Vendor Vendor	245.284071	0.00652813	0.03847475
2024Worker Worker	0	0	0
2025Hauling Hauling	455.764425	0.01119166	0.07199173
2025Vendor Vendor	241.978593	0.00653364	0.0379672
2025Worker Worker	0	0	0
GWP	1	25	290

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	Idling minutes per Day (miles)	Regional Emissions (MT/year)			
					CO2	CH4	N2O	CO2e
Landscape-2023								
2023								
Total Haul Trips	4680							
Hauling	60	78	8	15	32.77	0.02	1.50	34.29
Vendor	20	78	8	15	5.80	0.00	0.26	6.07
Worker	0	78	8	0	0.00	0.00	0.00	0.00
Landscape-2024-1-no workers								
2024								
Total Haul Trips	14100							
Hauling	60	235	8	15	97.69	0.06	4.47	102.22
Vendor	20	235	8	15	17.29	0.01	0.79	18.09
Worker	0	235	8	0	0.00	0.00	0.00	0.00
Landscape-2024-1-with workers								
2024								
Total Haul Trips	1620							
Hauling	60	27	8	15	11.22	0.01	0.51	11.74
Vendor	20	27	8	15	1.99	0.00	0.09	2.08
Worker	200	27	8	0	0.00	0.00	0.00	0.00
Landscape-2024-2								
2024								
Total Haul Trips	780							
Hauling	30	26	8	15	5.40	0.00	0.25	5.65
Vendor	10	26	8	15	0.96	0.00	0.04	1.00
Worker	200	26	8	0	0.00	0.00	0.00	0.00
Landscape-2024-3								
2024								
Total Haul Trips	0							
Hauling	0	26	8	15	0.00	0.00	0.00	0.00
Vendor	10	26	8	15	0.96	0.00	0.04	1.00
Worker	200	26	8	0	0.00	0.00	0.00	0.00
Landscape-2025								
2025								
Total Haul Trips	0							
Hauling	0	0	8	15	0.00	0.00	0.00	0.00
Vendor	0	0	8	15	0.00	0.00	0.00	0.00
Worker	0	0	8	0	0.00	0.00	0.00	0.00
Pool-2023								
2023								
Total Haul Trips	2550							
Hauling	50	51	8	15	17.85	0.01	0.82	18.68
Vendor	20	51	8	15	3.79	0.00	0.17	3.97
Worker	0	51	8	0	0.00	0.00	0.00	0.00
Pool-2024-1								
2024								
Total Haul Trips	13100							
Hauling	50	262	8	15	90.76	0.05	4.16	94.97
Vendor	20	262	8	15	19.28	0.01	0.88	20.17
Worker	0	262	8	0	0.00	0.00	0.00	0.00
Pool-2024-2								
2024								
Total Haul Trips	650							
Hauling	25	26	8	15	4.50	0.00	0.21	4.71
Vendor	10	26	8	15	0.96	0.00	0.04	1.00
Worker	0	26	8	0	0.00	0.00	0.00	0.00
Pool-2024-3								
2024								
Total Haul Trips	0							
Hauling	0	26	8	15	0.00	0.00	0.00	0.00
Vendor	10	26	8	15	0.96	0.00	0.04	1.00
Worker	0	26	8	0	0.00	0.00	0.00	0.00

1.b) Operational Modeling Outputs

- (1) Emissions Summaries and Miscellaneous Calculations
- (2) Project without GHG Reduction Measures
 - Annual
- (3) Project with GHG Reduction Measures
 - Annual

Harvard Westlake

Greenhouse Gas Emissions Summary

Project Operations Summary Without GHG Reduction Characteristics, Features, and Measures (Full Buildout Year)	
Category	MTCO ₂ e/yr
Mobile	1,865
Area	0.02
Electricity	972
Natural Gas	94
Waste	19
Water	73
Construction	430
Project Subtotal	3,452
Existing	1,186
Project Net Total GHG Emissions	2,266

Project Operations Summary With GHG Reduction Characteristics, Features, and Measures (Full Buildout Year)	
Category	MTCO ₂ e/yr
Mobile	1,420
Area	0.02
Electricity	693
Natural Gas	93
Waste	19
Water	64
Construction	430
Project Subtotal	2,719
Existing	1,186
Project Net Total GHG Emissions	1,533

Existing Emissions Summary	
Category	MTCO ₂ e/yr
On Road Mobile Sources	890
Area	0.01
Energy (Electricity and Natural Gas)	234
Water Conveyance and Wastewater Treatment	14
Solid Waste	47
Total Existing Emissions	1,186

MTCO₂e=Metric Tons Carbon Dioxide equivalents

**Harvard Westlake
Operational Energy Analysis**

Estimated Electricity demand from Electric Vehicle Supply Equipment (EVSE)

Land Use Type	Number of EVSE Charging Spaces	Percent of Spaces with EV Chargers	Average Charge (kWh/day) ^a	Days/Year	Electricity Demand (kWh/yr)	Electricity Demand (MWh/yr)
Total	532	10.0%	4.4	365	85,440	85.44

Notes:

- a. Estimated based on reference sources listed below.
- b. Project would install EV charging spaces for 10 percent of its parking capacity for immediate use
- c. Project would install pre-wiring for EV charging spaces for 30 percent of its parking capacity for future use (so 20% in addition to the immediate use).

Sources:

US Department of Energy. Alternative Fuels Data Center, 2016. Hybrid and Plug-In Electric Vehicle Emissions Data Sources and Assumptions.
Available at: https://www.afdc.energy.gov/vehicles/electric_emissions_sources.html.

US Department of Energy. Smith, Margaret, 2016. Level 1 Electric Vehicle Charging Stations at the Workplace.
Available at: https://www.afdc.energy.gov/uploads/publication/WPCC_L1ChargingAtTheWorkplace_0716.pdf.

UCLA Luskin Center for Innovation. Williams, Brett and JR deShazo, 2013. Pricing Workplace Charging: Financial Viability and Fueling Costs.
Available at: <http://luskin.ucla.edu/sites/default/files/Luskin-WPC-TRB-13-11-15d.pdf>.

Electricity Emission Factor	Electricity Emission Factor	Total EV Charging GHG Emissions Per Year
(MT CO2/MWh)	(lbs CO2/MWh)	24.38
0.28	626.48	
(MT CH4/MWh)	(lbs CH4/MWh)	
1.32E-05	0.029	
(MT N2O/MWh)	(lbs N2O/MWh)	
2.80E-06	0.00617	

Harvard Westlake
Operational Energy Analysis

Estimated Electricity demand from Electric Vehicle Supply Equipment (EVSE) - BAU

Land Use Type	Number of EVSE Charging Spaces	Percent of Spaces with EV Chargers	Average Charge (kWh/day) ^a	Days/Year	Electricity Demand (kWh/yr)	Electricity Demand (MWh/yr)
Total	532	10.0%	4.4	365	85,440	85.44

Notes:

- a. Estimated based on reference sources listed below.
- b. Project would install EV charging spaces for 10 percent of its parking capacity for immediate use
- c. Project would install pre-wiring for EV charging spaces for 30 percent of its parking capacity for future use (so 20% in addition to the immediate use).

Sources:

US Department of Energy. Alternative Fuels Data Center, 2016. Hybrid and Plug-In Electric Vehicle Emissions Data Sources and Assumptions.
Available at: https://www.afdc.energy.gov/vehicles/electric_emissions_sources.html.

US Department of Energy. Smith, Margaret, 2016. Level 1 Electric Vehicle Charging Stations at the Workplace.
Available at: https://www.afdc.energy.gov/uploads/publication/WPCC_L1ChargingAtTheWorkplace_0716.pdf.

UCLA Luskin Center for Innovation. Williams, Brett and JR deShazo, 2013. Pricing Workplace Charging: Financial Viability and Fueling Costs.
Available at: <http://luskin.ucla.edu/sites/default/files/Luskin-WPC-TRB-13-11-15d.pdf>.

Electricity Emission Factor	Electricity Emission Factor	Total EV Charging GHG Emissions Per Year
(MT CO2/MWh)	(lbs CO2/MWh)	28.78
0.34	740.03	
(MT CH4/MWh)	(lbs CH4/MWh)	
1.32E-05	0.029	
(MT N2O/MWh)	(lbs N2O/MWh)	
2.80E-06	0.00617	

Solar Assumptions

System Info 426.0 Panels

Generate	339,000 kwh/year
	339.0 mwh/year
Carbon Intensity Factor	626.48 lbs CO2/MWh
CH4IntensityFactor	0.029 lbs CO2/MWh
N2OIntensityFactor	0.006 lbs N2O/MWh
CO2e lbs/year	213228.5
lbs/metric ton	2204.623
CO2e MT/year	96.72

Source: Gensler

**Harvard Westlake
Pole Lighting and LED Screens**

**Pole Lighting
Based on Illuminance Calculations From Lighting Analysis**

Circuit Summary

Circuit	Description	Load (kW)	Fixture Qty
A	Track and Field	31.36	29
B	Tennis 1	6.96	12
C	Tennis 2	6.96	12
D	Tennis 3	6.96	12
E	Tennis 4	6.96	12
F	Athletic Fields	66.75	46
G	Pool	10.41	19
H	Track	2.67	26
I	Ball Tracking Fixtures	3.45	6
		142.480	

Assumptions		
Weekdays+Sundays/Year		313
Saturdays (when facilities will be used)		10
Lighting # hours per day		4
hours operating per year		1292
Energy usage per year		184084 kwh/year

LED Screens

LED Screen	Dimensions (ft)		Diagonal	Power Usage Watts
Field A	25	18	30.8	739.2
Field B	25	18	30.8	739.2
			Total	1478.4

Assumptions		
Weekdays+Sundays/Year		313
Saturdays (when facilities will be used)		10
Screens # hours per day		4
hours operating per year		1292
Energy usage per year		1910093 wh/year 1910 kwh/year

LED scaled from 50 inches diameter screen using 100 W
http://energyusecalculator.com/electricity_lcdleddisplay.htm
 Assumes LED no used on sundays since no events

Diagonal (f	Power Usage
4.17	100
30.8	739.2

Total Energy (Pole Lighting and LED Screens)

Total Energy Usage	185994 kwh/year 186.0 mwh/year
Carbon IntensityFactor	626.48 lbs CO2/MWh
CH4IntensityFactor	0.029 lbs CO2/MWh
N2OIntensityFactor	0.006 lbs N2O/MWh
CO2e lbs/year	116989
lbs/metric ton	2204.623
CO2e MT/year	53.07

**Harvard Westlake
Pole Lighting and LED Screens**

**Pole Lighting - BAU
Based on Illuminance Calculations From Lighting Analysis**

Circuit Summary

Circuit	Description	Load (kW)	Fixture Qty
A	Track and Field	31.36	29
B	Tennis 1	6.96	12
C	Tennis 2	6.96	12
D	Tennis 3	6.96	12
E	Tennis 4	6.96	12
F	Athletic Fields	66.75	46
G	Pool	10.41	19
H	Track	2.67	26
	Ball Tracking Fixtures	3.450	6
		142.480	

Assumptions		
	Weekdays+Sundays/Year	313
	Saturdays (when facilities will be used)	10
	Lighting # hours per day	4
	hours operating per year	1292
	Energy usage per year	184084.2 kwh/year

LED Screens

LED Screen	Dimensions (ft)		Diagonal	Power Usage Watts
Field A	25	18	30.8	739.2
Field B	25	18	30.8	739.2
			Total	1478.4

Assumptions		
	Weekdays+Sundays/Year	313
	Saturdays (when facilities will be used)	10
	Screens # hours per day	4
	hours operating per year	1292
	Energy usage per year	1910093 wh/year 1910 kwh/year

LED scaled from 50 inches diameter screen using 100 W
http://energyusecalculator.com/electricity_lcdleddisplay.htm
 Assumes LED no used on sundays since no events

Diagonal (f	Power Usage
4.17	100
30.8	739.2

Total Energy (Pole Lighting and LED Screens)

Total Energy Usage	185994 kwh/year 186.0 mwh/year
Carbon Intensity Factor	740.03 lbs CO2/MWh
CH4IntensityFactor	0.029 lbs CO2/MWh
N2OIntensityFactor	0.006 lbs N2O/MWh
CO2e lbs/year	138108.6
lbs/metric ton	2204.623
CO2e MT/year	62.64

Harvard Westlake
 Air Quality and GHG Assessment
 Operational Mobile Emissions

Existing
 Project
 Project - Without GHG Reductions Scenario

Year	Max Daily VMT	Annual VMT	PM2.5 Total	GHG Emission Factors (metric tons/mile)				GHG Emissions (metric tons/year)			
				CO2	CH4	N2O	CO2e	CO2 1	CH4 25	N2O 298	CO2e
2020	6,030	2,200,950	2.18E-04	3.97E-04	2.59E-08	2.26E-08	4.05E-04	874.13	0.06	0.05	890.35
2025	48,370	3,958,345	2.12E-04	3.53E-04	2.04E-08	1.90E-08	3.59E-04	1,395.89	0.08	0.08	1,420.32
2025	48,370	5,196,809	2.12E-04	3.53E-04	2.04E-08	1.90E-08	3.59E-04	1,832.63	0.11	0.10	1,864.70

Source: Fehr & Peers, Transportation Assessment for the Harvard-Westlake River Park Project, March 2021.

VMT for Average Academic Year Weekday

Population Group	Daily Trip Gen	Trip Length (mi)	Total Daily VMT	Trip Gen Note	Trip Length Note	CallEMod	Trip Category	Default CallEMod	Trip Length	Trip Generation
Proposed Project										
HW Shuttles - Both directions	98	1.5	87	Trip gen is based on average school day from HW data	Trip length is for one-way trip between HW Upper School and River Park					
HW Private Vehicles - Inbound	43	1.5	65	Trip gen is based on average school day from HW data	Trip length is for one-way trip between HW Upper School and River Park			8.4	8.4	HW Drive
HW Private Vehicles - Outbound	43	0.0	0	Trip gen is based on average school day from HW data	Difference in trip length between zip codes and River Park vs HW Upper School			c-c	c-c	Non-HW Drive
HW Other	132	12.9	1,703	Trip gen is based on average school day from HW data	Trip length is weighted average for HW student zip codes			8.4	8.4	
Employees	98	13.3	1,303	Trip gen is based on employee data from HW AVO of 1, no TNC	Trip length is based on HW employee zip codes			16.6	16.6	
HW Special Events	66	12.9	851	Trip gen is based on 15 weekday events averaged across school days, using AVO of 1.5, 10% TNC	Trip length is weighted average for HW student zip codes			8.4	8.4	
Existing Use Credit										
Weddington	-1022	5.9	-6,030	Trip gen is based on daily vehicle counts collected at Weddington Golf & Tennis	Trip length based on Weddington Tennis zip codes					
Weddington	Existing VMT Credit		-6,030							
Net Total VMT										
	Net Total VMT for TA		-2,021							

Other VMT (Exemptions not for TA)				Trip Gen Note	Trip Length Note
Community Use	Daily Trip Gen	Trip Length (mi)	Daily VMT		
Community Use	1,248	5.9	7,363	Trip gen is based on ITE for Tennis Courts (490) and Recreational Community Center (495)	Trip length based on Weddington Tennis zip codes
Community Events	Trip Gen per Event	Trip Length (mi)	VMT Per Event		
Community Events	354	5.9	4,331	Trip gen is based on a 500 attendee event using an AVO of 1.5, 10% TNC	Trip length based on Weddington Tennis zip codes
HW Special Events	Trip Gen per Event	Trip Length (mi)	VMT Per Event		
HW Special Events	54	12.9	703	Trip gen is based on 27 events of 500 attendees and 3 events of 2,000 attendees using an AVO of 1.5, 10% TNC	Trip length is weighted average for HW student zip codes

	Project Scenario	Project Without Reduction Features Scenario
Annual VMT	1,855	2,318
HW Daily	404,350	505,411
Employees Daily	1,300	1,627
Employees Annual	475,595	593,782
HW + Employee Subtotal Daily	3,154	3,943
HW + Employee Subtotal Annual	878,966	1,095,193
Community Use Daily	7,363	10,483
Community Use Annual	2,687,495	3,826,368
Max HW Special Event VMT	37,849	
HW Special Events Per Year	90	
HW Special Event VMT Per Year	369,210	240,420
Max Community Event VMT	4,331	
Community Events Per Year	5	
Community Events VMT Per Year	21,655	30,828
Max Day AQ	48.376	
Max Annual GHG	3,958,345	5,196,809

Average Academic Year Weekday	Inbound	Outbound	Total
Shuttles	29	29	58
HW Drive	43	43	86
Non-HW Drive	66	66	132
	adjusted for TNC		

Trip Lengths	Miles	Notes
One-way HW Upper School - River Park	1.5	Google Maps
One-way Zip codes to HW Upper School	12.9	Student zip code data from David, GIS network analyst to determine weighted average trip length
One-way Zip codes to River Park	12.9	Student zip code data from David, GIS network analyst to determine weighted average trip length
One-Way Weddington Trip Length	5.9	Weddington Tennis zip code data from David
One-Way Employees to River Park	13.3	Employee zip code data from David, GIS network analyst to determine weighted average trip length

HW Special Events	Days in school year	# per School Year	Annual Trips	Avg Daily Trips	Trip Length	Daily VMT
8.4 Average Academic Year Weekday	218	15	14,300	66	12.9	851
15 Events Spread out Across School Year						
8.4 Average HW Special Event (not for TA)	# per Year	Attendee/Event	Trips/Event	Trip Length (mi)	VMT per event	Annual VMT
8.4 Smaller Events	27	500	754	12.9	9,469	315,663
Larger Events	3	2,000	2,934	12.9	37,849	113,547
Average Events	30	650	954		12,307	241,451

Community Events (not for TA)	# per Year	Attendee/Event	Trips/Event	Trip Length (mi)	VMT per event	Annual VMT
Community Events	5	500	754	5.9	4,331	21,655

rounding factor for trip length	1
rounding factor for VMT	0
Event Attendee AVO	1.5
TNC Factor	10%

Harvard Westlake - Operations - South Coast AQMD Air District, Annual

**Harvard Westlake - Operations
South Coast AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking Structure	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	626.48	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor linearly adjusted to account for SB100 RPS by year 2025.

Land Use - Existing uses to remain not included. See operational assumptions.

Construction Phase -

Vehicle Trips - operational mobile emissions calculated outside of CalEEMod.

Area Coating - see operational assumptions

Energy Use - accounts for 2019 Title 24 standards. Health Club Non-Title 24 Natural Gas usage to account for pool heating and parking lot lighting assumed for certain uses to account for general lighting. see operational assumptions.

Water And Wastewater - Operational water demand from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Solid Waste - Solid waste values for Project uses from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Waste Mitigation - City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013). Citywide 76% MSW diversion.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	58777	128809
tblAreaCoating	Area_Nonresidential_Interior	176331	386426
tblAreaCoating	Area_Parking	24040	15636
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	NT24NG	0.00	4.45
tblEnergyUse	T24E	3.92	3.50
tblEnergyUse	T24E	4.60	4.11
tblEnergyUse	T24E	2.25	2.01
tblEnergyUse	T24E	0.65	0.58
tblEnergyUse	T24NG	10.02	9.92
tblEnergyUse	T24NG	13.65	13.51
tblEnergyUse	T24NG	0.84	0.83
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60
tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30
tblLandUse	LotAcreage	4.53	1.00

tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10
tblProjectCharacteristics	CO2IntensityFactor	1227.89	626.48
tblSolidWaste	SolidWasteGenerationRate	0.91	0.00
tblSolidWaste	SolidWasteGenerationRate	0.17	0.00
tblSolidWaste	SolidWasteGenerationRate	524.12	160.00
tblSolidWaste	SolidWasteGenerationRate	72.22	0.00
tblSolidWaste	SolidWasteGenerationRate	23.89	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	31,992.07	2,102.00
tblWater	IndoorWaterUseRate	5,438,212.09	9,182,232.00
tblWater	IndoorWaterUseRate	749,343.63	0.00
tblWater	IndoorWaterUseRate	5,878,375.00	26,280.00
tblWater	OutdoorWaterUseRate	12,641,617.12	3,300,000.00

tblWater	OutdoorWaterUseRate	0.00	1,813,320.00
tblWater	OutdoorWaterUseRate	19,608.05	0.00
tblWater	OutdoorWaterUseRate	3,333,097.74	0.00
tblWater	OutdoorWaterUseRate	459,275.13	178,704.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Energy	9.3400e-003	0.0849	0.0713	5.1000e-004		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	801.6179	801.6179	0.0346	8.4900e-003	805.0119
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	32.4786	0.0000	32.4786	1.9194	0.0000	80.4642
Water						0.0000	0.0000		0.0000	0.0000	2.9221	50.7879	53.7100	0.3025	7.5700e-003	63.5288
Total	0.5884	0.0850	0.0817	5.1000e-004	0.0000	6.4900e-003	6.4900e-003	0.0000	6.4900e-003	6.4900e-003	35.4007	852.4260	887.8266	2.2566	0.0161	949.0264

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Energy	9.3400e-003	0.0849	0.0713	5.1000e-004		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	801.6179	801.6179	0.0346	8.4900e-003	805.0119
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7.7949	0.0000	7.7949	0.4607	0.0000	19.3114
Water						0.0000	0.0000		0.0000	0.0000	2.9221	50.7879	53.7100	0.3025	7.5700e-003	63.5288

Total	0.5884	0.0850	0.0817	5.1000e-004	0.0000	6.4900e-003	6.4900e-003	0.0000	6.4900e-003	6.4900e-003	10.7170	852.4260	863.1429	0.7978	0.0161	887.8735
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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.73	0.00	2.78	64.65	0.00	6.44

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										Mt/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Enclosed Parking Structure	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
General Office Building	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Health Club	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Other Non-Asphalt Surfaces	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Parking Lot	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Recreational Swimming Pool	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Unrefrigerated Warehouse-No Rail	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	709.2131	709.2131	0.0328	6.7900e-003	712.0579
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	709.2131	709.2131	0.0328	6.7900e-003	712.0579
NaturalGas Mitigated	9.3400e-003	0.0849	0.0713	5.1000e-004		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	92.4048	92.4048	1.7700e-003	1.6900e-003	92.9540
NaturalGas Unmitigated	9.3400e-003	0.0849	0.0713	5.1000e-004		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	92.4048	92.4048	1.7700e-003	1.6900e-003	92.9540

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1855.8	1.0000e-005	9.0000e-005	8.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0990	0.0990	0.0000	0.0000	0.0996
Health Club	1.65149e+006	8.9100e-003	0.0810	0.0680	4.9000e-004		6.1500e-003	6.1500e-003		6.1500e-003	6.1500e-003	0.0000	88.1300	88.1300	1.6900e-003	1.6200e-003	88.6537
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	56390.4	3.0000e-004	2.7600e-003	2.3200e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	3.0092	3.0092	6.0000e-005	6.0000e-005	3.0271
Unrefrigerated Warehouse-No Fuel	21861.2	1.2000e-004	1.0700e-003	9.0000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1666	1.1666	2.0000e-005	2.0000e-005	1.1735
Total		9.3400e-003	0.0849	0.0713	5.2000e-004		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	92.4048	92.4048	1.7700e-003	1.7000e-003	92.9540

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1855.8	1.0000e-005	9.0000e-005	8.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0990	0.0990	0.0000	0.0000	0.0996
Health Club	1.65149e+006	8.9100e-003	0.0810	0.0680	4.9000e-004		6.1500e-003	6.1500e-003		6.1500e-003	6.1500e-003	0.0000	88.1300	88.1300	1.6900e-003	1.6200e-003	88.6537
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	56390.4	3.0000e-004	2.7600e-003	2.3200e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	3.0092	3.0092	6.0000e-005	6.0000e-005	3.0271
Unrefrigerated Warehouse-No Fuel	21861.2	1.2000e-004	1.0700e-003	9.0000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1666	1.1666	2.0000e-005	2.0000e-005	1.1735
Total		9.3400e-003	0.0849	0.0713	5.2000e-004		6.4500e-003	6.4500e-003		6.4500e-003	6.4500e-003	0.0000	92.4048	92.4048	1.7700e-003	1.7000e-003	92.9540

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	161760	45.9668	2.1300e-003	4.4000e-004	46.1512
Enclosed Parking Structure	1.1738e+006	333.5533	0.0154	3.1900e-003	334.8913
General Office Building	2250	0.6394	3.0000e-005	1.0000e-005	0.6419
Health Club	998620	283.7745	0.0131	2.7200e-003	284.9128
Other Non-Asphalt Surfaces	49022.3	13.9305	6.4000e-004	1.3000e-004	13.9864
Parking Lot	12959.1	3.6825	1.7000e-004	4.0000e-005	3.6973
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	97358.6	27.6661	1.2800e-003	2.6000e-004	27.7770
Total		709.2131	0.0328	6.7900e-003	712.0579

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	161760	45.9668	2.1300e-003	4.4000e-004	46.1512
Enclosed Parking Structure	1.1738e+006	333.5533	0.0154	3.1900e-003	334.8913
General Office Building	2250	0.6394	3.0000e-005	1.0000e-005	0.6419
Health Club	998620	283.7745	0.0131	2.7200e-003	284.9128
Other Non-Asphalt Surfaces	49022.3	13.9305	6.4000e-004	1.3000e-004	13.9864
Parking Lot	12959.1	3.6825	1.7000e-004	4.0000e-005	3.6973
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	97358.6	27.6661	1.2800e-003	2.6000e-004	27.7770
Total		709.2131	0.0328	6.7900e-003	712.0579

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Unmitigated	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Total	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Total	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	53.7100	0.3025	7.5700e-003	63.5288
Unmitigated	53.7100	0.3025	7.5700e-003	63.5288

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.3	10.4184	4.8000e-004	1.0000e-004	10.4602
Enclosed Parking Structure	0 / 1.81332	5.7248	2.7000e-004	5.0000e-005	5.7478
General Office Building	0.002102 / 0	8.4400e-003	7.0000e-005	0.0000	0.0107
Health Club	9.18223 / 0	36.8886	0.3008	7.3900e-003	46.6103
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0 / 0.178704	0.5642	3.0000e-005	1.0000e-005	0.5665
Unrefrigerated Warehouse-No Pail	0.02628 / 0	0.1056	8.6000e-004	2.0000e-005	0.1334
Total		53.7100	0.3025	7.5700e-003	63.5288

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.3	10.4184	4.8000e-004	1.0000e-004	10.4602
Enclosed Parking Structure	0 / 1.81332	5.7248	2.7000e-004	5.0000e-005	5.7478
General Office Building	0.002102 / 0	8.4400e-003	7.0000e-005	0.0000	0.0107
Health Club	9.18223 / 0	36.8886	0.3008	7.3900e-003	46.6103
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0 / 0.178704	0.5642	3.0000e-005	1.0000e-005	0.5665
Unrefrigerated Warehouse-No	0.02628 / 0	0.1056	8.6000e-004	2.0000e-005	0.1334
Total		53.7100	0.3025	7.5700e-003	63.5288

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.7949	0.4607	0.0000	19.3114
Unmitigated	32.4786	1.9194	0.0000	80.4642

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	160	32.4786	1.9194	0.0000	80.4642
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pallet	0	0.0000	0.0000	0.0000	0.0000
Total		32.4786	1.9194	0.0000	80.4642

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	38.4	7.7949	0.4607	0.0000	19.3114
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	0	0.0000	0.0000	0.0000	0.0000
Total		7.7949	0.4607	0.0000	19.3114

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Harvard Westlake - Operations - South Coast AQMD Air District, Annual

**Harvard Westlake - Operations
South Coast AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.18	1000sqft	0.05	180.00	0
Unrefrigerated Warehouse-No Rail	25.42	1000sqft	0.30	25,420.00	0
Enclosed Parking Structure	503.00	Space	1.00	223,580.00	0
Other Non-Asphalt Surfaces	140.06	1000sqft	3.16	140,063.60	0
Parking Lot	29.00	Space	0.85	37,026.00	0
City Park	10.61	Acre	10.61	462,171.60	0
Health Club	91.95	1000sqft	0.68	91,954.00	0
Recreational Swimming Pool	12.67	1000sqft	0.10	12,672.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	740.03	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor linearly adjusted for year 2025 consistent with CARB's Scoping Plan Statewide NAT forecast for the AB 32.

Land Use - Existing uses to remain not included. See operational assumptions.

Construction Phase -

Vehicle Trips - operational mobile emissions calculated outside of CalEEMod.

Area Coating - see operational assumptions

Energy Use - Health Club Non-Title 24 Natural Gas usage to account for pool heating and parking lot lighting assumed for certain uses to account for general lighting. see operational assumptions.

Water And Wastewater - Operational water demand from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Solid Waste - Solid waste values for Project uses from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Waste Mitigation - City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013). Citywide 76% MSW diversion.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	58777	128809
tblAreaCoating	Area_Nonresidential_Interior	176331	386426
tblAreaCoating	Area_Parking	24040	15636
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	LightingElect	0.00	0.35
tblEnergyUse	NT24NG	0.00	4.45
tblLandUse	LandUseSquareFeet	201,200.00	223,580.00
tblLandUse	LandUseSquareFeet	140,060.00	140,063.60
tblLandUse	LandUseSquareFeet	11,600.00	37,026.00
tblLandUse	LandUseSquareFeet	91,950.00	91,954.00
tblLandUse	LandUseSquareFeet	12,670.00	12,672.00
tblLandUse	LotAcreage	0.00	0.05
tblLandUse	LotAcreage	0.58	0.30
tblLandUse	LotAcreage	4.53	1.00
tblLandUse	LotAcreage	3.22	3.16
tblLandUse	LotAcreage	0.26	0.85
tblLandUse	LotAcreage	2.11	0.68
tblLandUse	LotAcreage	0.29	0.10
tblProjectCharacteristics	CO2IntensityFactor	1227.89	740.03
tblSolidWaste	SolidWasteGenerationRate	0.91	0.00

tblSolidWaste	SolidWasteGenerationRate	0.17	0.00
tblSolidWaste	SolidWasteGenerationRate	524.12	160.00
tblSolidWaste	SolidWasteGenerationRate	72.22	0.00
tblSolidWaste	SolidWasteGenerationRate	23.89	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	31,992.07	2,102.00
tblWater	IndoorWaterUseRate	5,438,212.09	9,182,232.00
tblWater	IndoorWaterUseRate	749,343.63	0.00
tblWater	IndoorWaterUseRate	5,878,375.00	26,280.00
tblWater	OutdoorWaterUseRate	12,641,617.12	3,300,000.00
tblWater	OutdoorWaterUseRate	0.00	1,813,320.00
tblWater	OutdoorWaterUseRate	19,608.05	0.00
tblWater	OutdoorWaterUseRate	3,333,097.74	0.00
tblWater	OutdoorWaterUseRate	459,275.13	178,704.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Energy	9.4100e-003	0.0855	0.0718	5.1000e-004		6.5000e-003	6.5000e-003		6.5000e-003	6.5000e-003	0.0000	970.4205	970.4205	0.0362	8.8200e-003	973.9529
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	32.4786	0.0000	32.4786	1.9194	0.0000	80.4642
Water						0.0000	0.0000		0.0000	0.0000	2.9221	59.9932	62.9153	0.3025	7.5700e-003	72.7341
Total	0.5884	0.0856	0.0822	5.1000e-004	0.0000	6.5400e-003	6.5400e-003	0.0000	6.5400e-003	6.5400e-003	35.4007	1,030.4339	1,065.8345	2.2581	0.0164	1,127.1728

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Energy	9.4100e-003	0.0855	0.0718	5.1000e-004		6.5000e-003	6.5000e-003		6.5000e-003	6.5000e-003	0.0000	970.4205	970.4205	0.0362	8.8200e-003	973.9529
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7.7949	0.0000	7.7949	0.4607	0.0000	19.3114
Water						0.0000	0.0000		0.0000	0.0000	2.9221	59.9932	62.9153	0.3025	7.5700e-003	72.7341
Total	0.5884	0.0856	0.0822	5.1000e-004	0.0000	6.5400e-003	6.5400e-003	0.0000	6.5400e-003	6.5400e-003	10.7170	1,030.4339	1,041.1508	0.7994	0.0164	1,066.0199

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	69.73	0.00	2.32	64.60	0.00	5.43

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Enclosed Parking Structure	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
General Office Building	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Health Club	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Other Non-Asphalt Surfaces	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Parking Lot	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Recreational Swimming Pool	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825
Unrefrigerated Warehouse-No Rail	0.551360	0.042151	0.204257	0.114482	0.014139	0.005783	0.021875	0.035696	0.002143	0.001676	0.004899	0.000713	0.000825

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	877.3141	877.3141	0.0344	7.1100e-003	880.2933
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	877.3141	877.3141	0.0344	7.1100e-003	880.2933
NaturalGas Mitigated	9.4100e-003	0.0855	0.0718	5.1000e-004		6.5000e-003	6.5000e-003		6.5000e-003	6.5000e-003	0.0000	93.1063	93.1063	1.7800e-003	1.7100e-003	93.6596
NaturalGas Unmitigated	9.4100e-003	0.0855	0.0718	5.1000e-004		6.5000e-003	6.5000e-003		6.5000e-003	6.5000e-003	0.0000	93.1063	93.1063	1.7800e-003	1.7100e-003	93.6596

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1873.8	1.0000e-005	9.0000e-005	8.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1000	0.1000	0.0000	0.0000	0.1006
Health Club	1.66437e+006	8.9700e-003	0.0816	0.0685	4.9000e-004		6.2000e-003	6.2000e-003		6.2000e-003	6.2000e-003	0.0000	88.8170	88.8170	1.7000e-003	1.6300e-003	89.3448
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	56390.4	3.0000e-004	2.7600e-003	2.3200e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	3.0092	3.0092	6.0000e-005	6.0000e-005	3.0271
Unrefrigerated Warehouse-No	22115.4	1.2000e-004	1.0800e-003	9.1000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1802	1.1802	2.0000e-005	2.0000e-005	1.1872
Total		9.4000e-003	0.0855	0.0718	5.2000e-004		6.5000e-003	6.5000e-003		6.5000e-003	6.5000e-003	0.0000	93.1063	93.1063	1.7800e-003	1.7100e-003	93.6596

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										Mt/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1873.8	1.0000e-005	9.0000e-005	8.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1000	0.1000	0.0000	0.0000	0.1006
Health Club	1.66437e+006	8.9700e-003	0.0816	0.0685	4.9000e-004		6.2000e-003	6.2000e-003		6.2000e-003	6.2000e-003	0.0000	88.8170	88.8170	1.7000e-003	1.6300e-003	89.3448
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	56390.4	3.0000e-004	2.7600e-003	2.3200e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	3.0092	3.0092	6.0000e-005	6.0000e-005	3.0271
Unrefrigerated Warehouse-No Rail	22115.4	1.2000e-004	1.0800e-003	9.1000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1802	1.1802	2.0000e-005	2.0000e-005	1.1872
Total		9.4000e-003	0.0855	0.0718	5.2000e-004		6.5000e-003	6.5000e-003		6.5000e-003	6.5000e-003	0.0000	93.1063	93.1063	1.7800e-003	1.7100e-003	93.6596

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	161760	54.2983	2.1300e-003	4.4000e-004	54.4827
Enclosed Parking Structure	1.2677e+006	425.5309	0.0167	3.4500e-003	426.9759
General Office Building	2338.2	0.7849	3.0000e-005	1.0000e-005	0.7875
Health Club	1.02069e+006	342.6168	0.0134	2.7800e-003	343.7803
Other Non-Asphalt Surfaces	49022.3	16.4554	6.4000e-004	1.3000e-004	16.5113
Parking Lot	12959.1	4.3500	1.7000e-004	4.0000e-005	4.3648
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	99138	33.2779	1.3000e-003	2.7000e-004	33.3909
Total		877.3141	0.0344	7.1200e-003	880.2933

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	161760	54.2983	2.1300e-003	4.4000e-004	54.4827
Enclosed Parking Structure	1.2677e+006	425.5309	0.0167	3.4500e-003	426.9759
General Office Building	2338.2	0.7849	3.0000e-005	1.0000e-005	0.7875
Health Club	1.02069e+006	342.6168	0.0134	2.7800e-003	343.7803
Other Non-Asphalt Surfaces	49022.3	16.4554	6.4000e-004	1.3000e-004	16.5113
Parking Lot	12959.1	4.3500	1.7000e-004	4.0000e-005	4.3648
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	99138	33.2779	1.3000e-003	2.7000e-004	33.3909
Total		877.3141	0.0344	7.1200e-003	880.2933

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Unmitigated	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Total	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1230					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.5000e-004	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215
Total	0.5790	9.0000e-005	0.0104	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0202	0.0202	5.0000e-005	0.0000	0.0215

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	62.9153	0.3025	7.5700e-003	72.7341
Unmitigated	62.9153	0.3025	7.5700e-003	72.7341

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.3	12.3067	4.8000e-004	1.0000e-004	12.3485
Enclosed Parking Structure	0 / 1.81332	6.7624	2.7000e-004	5.0000e-005	6.7854
General Office Building	0.002102 / 0	9.8500e-003	7.0000e-005	0.0000	0.0121
Health Club	9.18223 / 0	43.0467	0.3008	7.3900e-003	52.7683
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0 / 0.178704	0.6664	3.0000e-005	1.0000e-005	0.6687
Unrefrigerated Warehouse-No Pool	0.02628 / 0	0.1232	8.6000e-004	2.0000e-005	0.1510
Total		62.9153	0.3025	7.5700e-003	72.7341

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.3	12.3067	4.8000e-004	1.0000e-004	12.3485
Enclosed Parking Structure	0 / 1.81332	6.7624	2.7000e-004	5.0000e-005	6.7854
General Office Building	0.002102 / 0	9.8500e-003	7.0000e-005	0.0000	0.0121
Health Club	9.18223 / 0	43.0467	0.3008	7.3900e-003	52.7683
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0 / 0.178704	0.6664	3.0000e-005	1.0000e-005	0.6687
Unrefrigerated Warehouse-No	0.02628 / 0	0.1232	8.6000e-004	2.0000e-005	0.1510
Total		62.9153	0.3025	7.5700e-003	72.7341

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.7949	0.4607	0.0000	19.3114
Unmitigated	32.4786	1.9194	0.0000	80.4642

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	160	32.4786	1.9194	0.0000	80.4642
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	0	0.0000	0.0000	0.0000	0.0000
Total		32.4786	1.9194	0.0000	80.4642

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	38.4	7.7949	0.4607	0.0000	19.3114
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	0	0.0000	0.0000	0.0000	0.0000
Total		7.7949	0.4607	0.0000	19.3114

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

1.c) Existing Modeling Outputs

Harvard Westlake - Existing - South Coast AQMD Air District, Annual

**Harvard Westlake - Existing
South Coast AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.80	1000sqft	0.05	799.00	0
Other Non-Asphalt Surfaces	128.00	1000sqft	2.94	128,000.00	0
Parking Lot	89.00	Space	0.88	38,400.00	0
City Park	1.10	Acre	1.10	47,916.00	0
Golf Course	11.78	Acre	11.78	559,860.95	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	12	Operational Year	2020		
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	787.02	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor linearly adjusted to account for SB100 RPS by year 2020.

Land Use - Existing uses to remain not included. See operational assumptions.

Construction Phase -

Vehicle Trips - mobile emissions calculated outside of CalEEMod.

Energy Use - Added parking lot lighting to land uses account for general lighting. See operational assumptions. Historical data box checked to account for existing uses built before 2005.

Water And Wastewater - Existing use water demand from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations.

Solid Waste - Solid waste values for existing uses from DEIR Section P. Utilities and Service Systems - Wastewater, Water Supply and Infrastructure, Solid Waste Regulations

Waste Mitigation - City of Los Angeles, Bureau of Sanitation, Zero Waste Progress Report, (2013). Citywide 76% MSW diversion.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	0.00	0.88
tblEnergyUse	LightingElect	0.00	0.88
tblLandUse	LandUseSquareFeet	800.00	799.00
tblLandUse	LandUseSquareFeet	35,600.00	38,400.00
tblLandUse	LandUseSquareFeet	513,136.80	559,860.95
tblLandUse	LotAcreage	0.02	0.05
tblLandUse	LotAcreage	0.80	0.88
tblProjectCharacteristics	CO2IntensityFactor	1227.89	787.02
tblSolidWaste	SolidWasteGenerationRate	0.09	120.00
tblSolidWaste	SolidWasteGenerationRate	0.74	0.00
tblSolidWaste	SolidWasteGenerationRate	10.96	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.82	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	5.88	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	5.04	0.00
tblWater	IndoorWaterUseRate	142,187.00	47,304.00
tblWater	OutdoorWaterUseRate	1,310,629.48	0.00
tblWater	OutdoorWaterUseRate	87,146.87	0.00
tblWater	OutdoorWaterUseRate	14,035,650.30	11,332,488.00
tblWater	OutdoorWaterUseRate	0.00	488,808.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0223	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7200e-003	5.7200e-003	2.0000e-005	0.0000	6.1100e-003
Energy	5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	233.0307	233.0307	8.5800e-003	1.7800e-003	233.7763
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	24.3589	0.0000	24.3589	1.4396	0.0000	60.3482
Water						0.0000	0.0000		0.0000	0.0000	0.0150	47.1045	47.1195	3.2800e-003	4.0000e-004	47.3193
Total	0.0224	5.2000e-004	3.3700e-003	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005	24.3739	280.1410	304.5149	1.4515	2.1800e-003	341.4499

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0223	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7200e-003	5.7200e-003	2.0000e-005	0.0000	6.1100e-003
Energy	5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	233.0307	233.0307	8.5800e-003	1.7800e-003	233.7763
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	5.8461	0.0000	5.8461	0.3455	0.0000	14.4836
Water						0.0000	0.0000		0.0000	0.0000	0.0150	47.1045	47.1195	3.2800e-003	4.0000e-004	47.3193
Total	0.0224	5.2000e-004	3.3700e-003	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005	5.8612	280.1410	286.0021	0.3574	2.1800e-003	295.5853

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.95	0.00	6.08	75.38	0.00	13.43
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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
General Office Building	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Golf Course	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Other Non-Asphalt Surfaces	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956
Parking Lot	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	232.5003	232.5003	8.5700e-003	1.7700e-003	233.2427
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	232.5003	232.5003	8.5700e-003	1.7700e-003	233.2427
NaturalGas Mitigated	5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5304	0.5304	1.0000e-005	1.0000e-005	0.5336
NaturalGas Unmitigated	5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5304	0.5304	1.0000e-005	1.0000e-005	0.5336

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	9939.56	5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5304	0.5304	1.0000e-005	1.0000e-005	0.5336
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5304	0.5304	1.0000e-005	1.0000e-005	0.5336

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	9939.56	5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5304	0.5304	1.0000e-005	1.0000e-005	0.5336
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		5.0000e-005	4.9000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5304	0.5304	1.0000e-005	1.0000e-005	0.5336

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	12176.8	4.3469	1.6000e-004	3.0000e-005	4.3608
Golf Course	492678	175.8792	6.4800e-003	1.3400e-003	176.4407
Other Non-Asphalt Surfaces	112640	40.2109	1.4800e-003	3.1000e-004	40.3393
Parking Lot	33792	12.0633	4.4000e-004	9.0000e-005	12.1018
Total		232.5003	8.5600e-003	1.7700e-003	233.2427

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
General Office Building	12176.8	4.3469	1.6000e-004	3.0000e-005	4.3608
Golf Course	492678	175.8792	6.4800e-003	1.3400e-003	176.4407
Other Non-Asphalt Surfaces	112640	40.2109	1.4800e-003	3.1000e-004	40.3393
Parking Lot	33792	12.0633	4.4000e-004	9.0000e-005	12.1018
Total		232.5003	8.5600e-003	1.7700e-003	233.2427

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0223	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7200e-003	5.7200e-003	2.0000e-005	0.0000	6.1100e-003
Unmitigated	0.0223	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7200e-003	5.7200e-003	2.0000e-005	0.0000	6.1100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0194					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7200e-003	5.7200e-003	2.0000e-005	0.0000	6.1100e-003
Total	0.0223	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7200e-003	5.7200e-003	2.0000e-005	0.0000	6.1100e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.6800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0194					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7200e-003	5.7200e-003	2.0000e-005	0.0000	6.1100e-003
Total	0.0223	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7200e-003	5.7200e-003	2.0000e-005	0.0000	6.1100e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	47.1195	3.2800e-003	4.0000e-004	47.3193
Unmitigated	47.1195	3.2800e-003	4.0000e-004	47.3193

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.047304 / 0	0.2349	1.5500e-003	4.0000e-005	0.2850
Golf Course	0 / 11.3325	44.9460	1.6600e-003	3.4000e-004	45.0895
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0.488808	1.9387	7.0000e-005	1.0000e-005	1.9449
Total		47.1195	3.2800e-003	3.9000e-004	47.3193

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.047304 / 0	0.2349	1.5500e-003	4.0000e-005	0.2850
Golf Course	0 / 11.3325	44.9460	1.6600e-003	3.4000e-004	45.0895
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0.488808	1.9387	7.0000e-005	1.0000e-005	1.9449
Total		47.1195	3.2800e-003	3.9000e-004	47.3193

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.8461	0.3455	0.0000	14.4836
Unmitigated	24.3589	1.4396	0.0000	60.3482

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	120	24.3589	1.4396	0.0000	60.3482
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		24.3589	1.4396	0.0000	60.3482

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	28.8	5.8461	0.3455	0.0000	14.4836
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		5.8461	0.3455	0.0000	14.4836

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

C-2 Urban Heat Island



626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 [phone](#)
213.599.4301 [fax](#)

esassoc.com

technical memorandum

date October 8, 2021

to Kimberly Henry, City Planner, Los Angeles City Planning

Cc

from Alan Sako, Director of Air Quality, Climate and Acoustics Analyst, ESA

subject Urban Heat Island

Proposed Harvard-Westlake River Park Project Artificial Turf

Harvard-Westlake School (Applicant or School) is proposing to repurpose a site currently occupied by a private nine-hole, 27-par golf course and tennis facility, for use as an athletic and recreational facility for its students, employees and the general public (Project). The area proposed for the Project consists of a 16.1-acre (701,428 square foot) parcel, owned by the School (the Property) and located at 4141 Whitsett Avenue, and a 1.1-acre (47,916 square foot) parcel the School leases from Los Angeles County (Leased Property) (portion of Assessor Parcel Number [APN] 2375-018-903), which collectively comprise the 17.2-acre (749,344 square foot) project site (Project Site).

Under existing conditions, in order to maintain an appropriate, manicured playing field for golf, the Project Site has limited understory landscaping and ornamental vegetation, non-diverse and non-native trees (whose primary function is to delineate one golf hole from another) and non-native turf grass. The Project would replace the existing uses with new athletic and recreational facilities, including outdoor athletic fields utilizing artificial grass as a sustainable alternative to turf grass, thereby reducing irrigation water demand and avoiding the use of pesticides.

The following provides a discussion of the composition of artificial turf, which includes an overview of the components of artificial turf and the compounds of concern regarding the urban heat island effect. Based on the available studies and assessments, the potential for the Project's artificial turf to create a significant effect related to the urban heat island effect is discussed.

Background Information on Urban Heat Island

The urban heat island effect is a potential adverse outcome of climate change-induced temperature increases resulting from greenhouse gas (GHG) emissions, which could potentially lead to greater GHG emissions from additional energy needed for cooling. According to the California Environmental Protection Agency (CalEPA), the urban heat island effect refers to large urbanized areas that experience higher temperatures, greater pollution

and more negative health impacts during hot summer months when compared to more rural communities.¹ Heat islands are created by a combination of heat-absorptive surfaces (such as dark pavement and roofing), heat-generating activities (such as engines and generators) and the absence of vegetation (which provides evaporative cooling). Daytime temperatures in urban areas are on average 1 to 6 degrees Fahrenheit (F) higher than in rural areas, while nighttime temperatures can be as much as 22 degrees F higher as the heat is gradually released from buildings and pavement.² Assembly Bill 296 (Chapter 667, Statutes of 2012) required that CalEPA develop an Urban Heat Island Index (UHII) to quantify the extent and severity of an urban heat island for individual cities to map where and how intensely they manifest at a local scale.³ In 2015, CalEPA released maps that shows the scientifically assigned UHII scores based on atmospheric modeling for each census tract in and around most urban areas throughout California. The urban area in which the Project Site is located has a UHII score of 0 to 10 degree-hours per day (Celsius scale).⁴ This is equivalent to an average temperature difference between rural and urban in that area of approximately 0 to 0.75 degrees F.⁵ The CalEPA UHII map for the urban area in which the Project Site is located is provided in **Figure 1**, *California Environmental Protection Agency Urban Heat Island Index Map – San Fernando*. It is important to note that the UHII does not measure the temperatures of an area, but rather it measures the average temperature difference between rural and urban in that area.

Impact Analysis

Under existing conditions, in order to maintain an appropriate, manicured playing field for golf, the Project Site has limited understory landscaping and ornamental vegetation, non-diverse and non-native trees (whose primary function is to delineate one golf hole from another) and non-native turf grass. The Project would replace the existing uses with new athletic and recreational facilities, including outdoor athletic fields utilizing artificial grass as a sustainable alternative to turf grass, thereby reducing irrigation water demand, which would reduce the Project's GHG emissions associated with water conveyance and wastewater treatment, and avoiding the use of pesticides.

The following provides a discussion of the composition of artificial turf, which includes an overview of the components of artificial turf and the compounds of concern regarding the urban heat island effect, which is a potential adverse outcome of climate change-induced temperature increases resulting from GHG emissions and could potentially lead to greater GHG emissions from additional energy needed for cooling. Based on the available studies and assessments, the potential for the Project's artificial turf to create a significant effect related to the urban heat island effect is discussed.

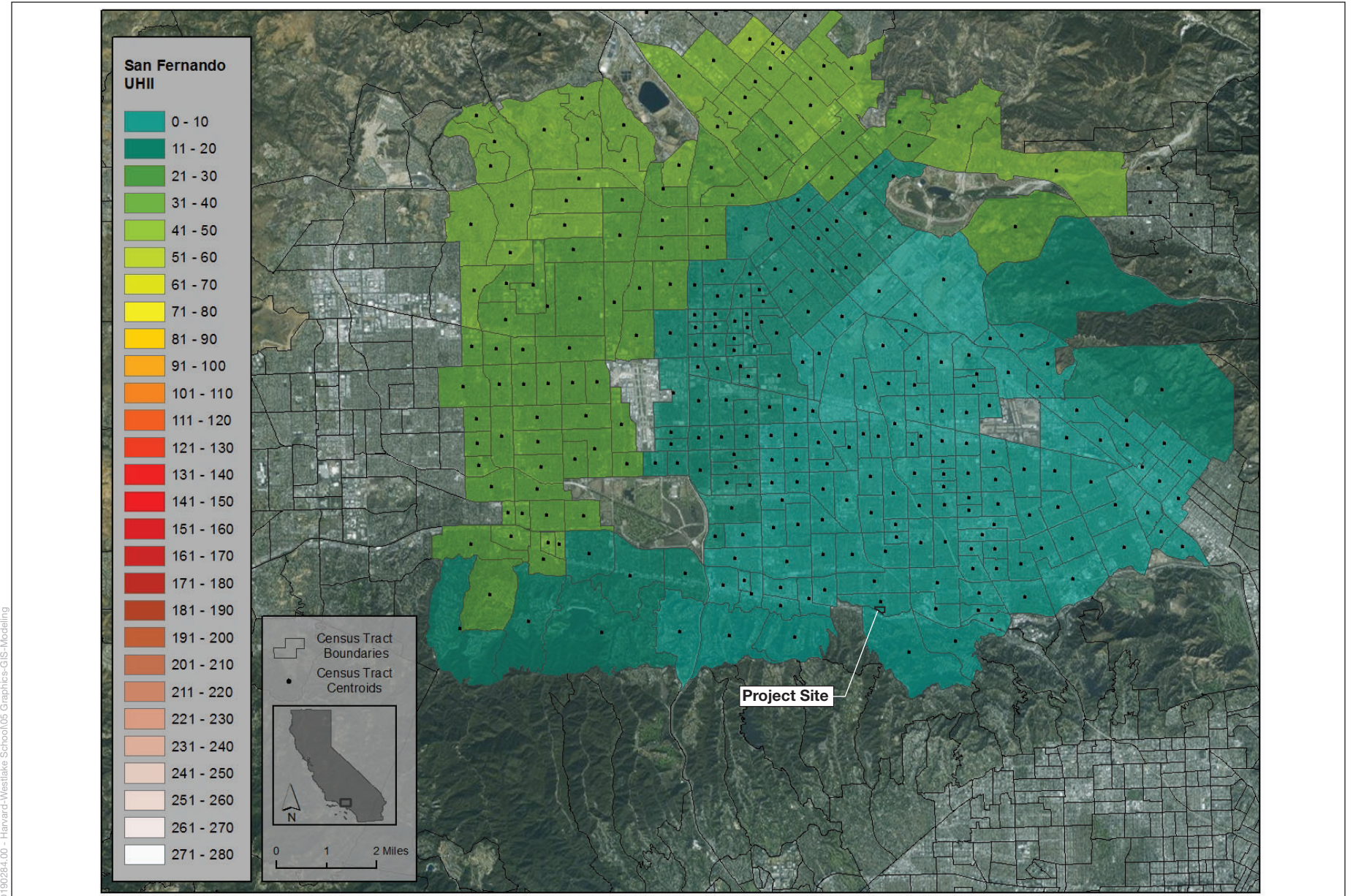
¹ CalEPA, Understanding the Urban Heat Island Index, <https://calepa.ca.gov/climate/urban-heat-island-index-for-california/understanding-the-urban-heat-island-index/>. Accessed December 1, 2020.

² CalEPA, Understanding the Urban Heat Island Index, <https://calepa.ca.gov/climate/urban-heat-island-index-for-california/understanding-the-urban-heat-island-index/>. Accessed December 1, 2020.

³ CalEPA, Understanding the Urban Heat Island Index, <https://calepa.ca.gov/climate/urban-heat-island-index-for-california/understanding-the-urban-heat-island-index/>. Accessed December 1, 2020.

⁴ According to CalEPA, the degree-hour combines both the intensity of the heat and the duration of the heat into a single numerical measure.

⁵ According to CalEPA, to perform an approximate conversion to a total number of degrees Fahrenheit per day, divide the Index by 24 hours and multiply the result by 1.8 degrees. For example, if the Index is 120 degree-hours per day, then the approximate average temperature difference between rural and urban in that area is 9 degrees F (i.e., $120 / 24 * 1.8 = 9$).



SOURCE: CalEPA, 2015. Creating and Mapping an Urban Heat Island Index for California.

Harvard-Westlake River Park Project

Figure 1
California Environmental Protection Agency
Urban Heat Island Index Map – San Fernando

A study conducted by Milone & MacBroom, Inc., a privately-owned, multidisciplinary consulting firm, conducted a temperature evaluation study designed and conducted to determine the temperature rise of the synthetic materials under a number of conditions.⁶ Two fields within Connecticut were selected for this study. Both fields were constructed by FieldTurf in 2007. One field, identified as Field F, is located in the northern portion of the state, while Field G is located in the southern portion of the state. Selection of the fields was based upon the ability to obtain permission to perform the testing and was not based upon manufacturer or geographic location. Temperature monitoring occurred on June 10 and July 11, 2008, at Field F and on June 17, 2008, at Field G. During the testing procedure, the air temperature was monitored at two elevations directly over the artificial playing surface and at a location adjacent to the artificial surface but within an area of natural grass. Air temperatures were measured at two feet and five feet above the ground surface during the June 10 and June 17, 2008, monitoring events. The methodology was adjusted for the July 11, 2008, event, at which time the temperatures were measured at one foot and five feet above the ground surface. Also measured during the testing were the temperatures of the crumb rubber and the surface temperature of the polyethylene and polypropylene blended fibers. Additional measurements were made of the soil at various depths in the area of the natural grass and the surface temperature of the natural grass itself. The results of the study indicate that solar heating of the materials used in the construction of artificial turf playing surfaces does occur and is most pronounced in the polyethylene and polypropylene fibers used to replicate natural grass. Maximum temperatures of approximately 156 degrees F on the surface of the artificial grass fibers were noted when the fields were exposed to direct sunlight for a prolonged period of time. The corresponding ambient temperature was 102 degrees F and the air temperature at 2 feet and 5 feet above the surface was 103 and 101 degrees F, respectively. As a comparison, the temperatures at the natural turf location at this same time was 99 degrees F on the surface of the natural grass, 101 and 102 degrees F at 2 feet and 5 feet above the surface, respectively. The temperature rise noted at one foot above the synthetic turf field was generally two to four degrees as compared to the measured ambient air temperature, although a maximum of a nine-degree rise was noted to occur over a short time period early in the study. Rapid cooling of the fibers was noted if the sunlight was interrupted or filtered by clouds. Data for Field G showed a cooling of 40 to 50 degrees F over a 10-minute period from 13:00 to 13:10 on June 17, 2008 when there was observed cloud cover. Significant cooling was also noted if water was applied to the synthetic fibers in quantities as low as one ounce per square foot. The elevated temperatures noted for the fibers generally resulted in an air temperature increase of less than five degrees even during periods of calm to low winds. For the artificial turf, the air temperatures above the surface decrease rapidly with increasing height.

The New York State Department of Health report, *An Assessment of Chemical Leaching, Releases to Air and Temperature at Crumb-Rubber Infilled Synthetic Turf Fields*,⁷ conducted a temperature survey to gain a better understanding of the surface temperature of artificial turf fields. For the two artificial turf fields in this study (Thomas Jefferson Field and John Mullaly Field), the center and a shaded edge area were selected for measurements and both areas were comprised of green-colored synthetic grass. An additional center location was selected for one field consisting of white artificial turf. Field measurements were conducted in August (11 days) and September (6 days). The results of the temperature survey show higher surface temperatures for artificial turf fields as compared to the measurements obtained on nearby grass and sand surfaces. Surface temperatures for the Thomas Jefferson Field, grass and sand had approximate median temperatures of 132, 87, and 86 degrees F, respectively and geometric mean temperatures of 126, 87, and 88 degrees F. The average synthetic turf surface

⁶ Milone & MacBroom, Inc., Thermal Effects Associated with Crumb Rubber In-filled Synthetic Turf Athletic Fields, December 2008.

⁷ Lim, Ly, & Walker, Randi, An assessment of chemical leaching, releases to air and temperature at crumb-rubber infilled synthetic turf fields. New York State Department of Environmental Conservation (NYDEC), 2009.

was 42°F higher than the grass surface temperature and 40°F higher than the sand surface temperature. Surface temperatures for the John Mullaly Field grass and sand had approximate median temperatures of 119, 80, and 90 degrees F, respectively and geometric mean temperatures of 114, 80, and 89 degrees F. The average synthetic turf surface was 26 degrees F higher than the grass surface temperature and 35 degrees F higher than the sand surface temperature.

Based on the studies, surface temperatures of artificial turf are higher compared to natural turf due to solar heating and is most pronounced in the polyethylene and polypropylene fibers used to replicate natural grass. Air temperatures at 1 feet above artificial turf were measured to be two to nine degrees higher as compared to the measured ambient air temperature. Air temperatures at 2 and 5 feet above artificial turf were measured to be generally equivalent to the measured ambient air temperature. Additionally, rapid cooling of the artificial turf fibers was noted if the sunlight was interrupted or filtered by clouds with observed data indicating a cooling of 40 to 50 degrees F over a 10-minute period when there was observed cloud cover. As shown in Figure II-2 of Chapter II, *Project Description*, of the Draft Environmental Impact Report, the Project Site is located in an already developed urban area with an asphalt roadway grid, and nearby commercial parking lots and commercial and residential buildings, which are general urban features that can potentially contribute to the urban heat island effect. However, as shown in Figure 1, the urban area in which the Project Site is located is rated with the lowest UHII score of 0 to 10 degree-hours per day (Celsius scale) – equivalent to an average temperature difference between rural and urban in that area of approximately 0 to 0.75 degrees F. Thus, the Project’s artificial turf would not substantially contribute to an increase in the urban heat island effect for the area given that the totality of the urbanized development in the area already yields the lowest UHII score. Furthermore, the urban heat island effect is most pronounced during the nighttime. In general, daytime temperatures in urban areas are on average 1 to 6 degrees F higher than in rural areas, while nighttime temperatures can be as much as 22 degrees F higher as the heat is gradually released from buildings and pavement.⁸ However, artificial turf fibers undergo rapid cooling if sunlight is interrupted or filtered by clouds with observed data indicating a cooling of 40 to 50 degrees F over a 10-minute period with observed cloud cover. Thus, unlike buildings and pavement that retain daytime heat and gradually release heat during the nighttime hours, artificial turf fibers would undergo rapid cooling as the sun sets and would not contribute substantially to nighttime heating.

The Project would implement an extensive tree and landscaping program that would remove 240 of the existing 421 inventoried on- and off-site trees (including four which are deemed dead and, therefore, excluded from mitigation requirements), and plant 393 trees resulting in a net increase of 153 trees beyond existing conditions (or a 36 percent increase). According to the United States Environmental Protection Agency (USEPA), trees help reduce urban heat island effects by shading building and ground surfaces, deflecting radiation from the sun, and releasing moisture into the atmosphere, which results in cooling through evapotranspiration.⁹ The increase in trees would help offset some of the warming effects from the proposed outdoor athletic fields utilizing artificial grass through increased Site-wide tree shading, deflection of solar radiation, and evapotranspiration compared to existing conditions.

Based on the above, the Project would have a less than significant impact with respect to the urban heat island effect.

⁸ CalEPA, Understanding the Urban Heat Island Index, <https://calepa.ca.gov/climate/urban-heat-island-index-for-california/understanding-the-urban-heat-island-index/>. Accessed December 1, 2020.

⁹ USEPA, Reduce Urban Heat Island Effect, November 2, 2020, <https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect>. Accessed December 1, 2020.