

Appendix A
Air Quality/Greenhouse Gas
Emissions Data

ARROWHEAD REGIONAL MEDICAL CENTER
INITIAL STUDY

Arrowhead Medical Center - San Bernardino-South Coast County, Annual

Arrowhead Medical Center
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	25.00	1000sqft	0.57	25,000.00	0
Parking Lot	125.00	Space	1.13	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use -

Construction Phase - Construction phases based on Construction Questionnaire

Off-road Equipment - equipment based on Construction Questionnaire

Off-road Equipment - equipment based on Construction Questionnaire

Off-road Equipment -

Off-road Equipment -

Grading -

Trips and VMT - total hauling trips based on construction questionnaire, typical truck hauls 16 cubic yards per load. $1,500/16=93.75$

Architectural Coating -

Construction Off-road Equipment Mitigation - Based on SCAQMD standards and regulationsw

Mobile Commute Mitigation -

Water Mitigation -

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Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	88.00
tblConstructionPhase	NumDays	4.00	22.00
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	PhaseEndDate	2/8/2021	8/14/2020
tblConstructionPhase	PhaseEndDate	1/11/2021	7/31/2020
tblConstructionPhase	PhaseEndDate	4/6/2020	3/31/2020
tblConstructionPhase	PhaseEndDate	1/25/2021	7/15/2020
tblConstructionPhase	PhaseStartDate	1/26/2021	8/3/2020
tblConstructionPhase	PhaseStartDate	4/7/2020	4/1/2020
tblConstructionPhase	PhaseStartDate	4/1/2020	3/2/2020
tblConstructionPhase	PhaseStartDate	1/12/2021	7/1/2020
tblGrading	MaterialExported	0.00	1,500.00
tblOffRoadEquipment	HorsePower	78.00	89.00
tblOffRoadEquipment	LoadFactor	0.50	0.20
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	188.00	94.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00

2.0 Emissions Summary

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2.1 Overall Construction

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	tons/yr										MT/yr					
2020	0.2516	1.0195	0.8399	1.6100e-003	0.0737	0.0516	0.1253	0.0331	0.0492	0.0822	0.0000	137.4878	137.4878	0.0252	0.0000	138.1174
Maximum	0.2516	1.0195	0.8399	1.6100e-003	0.0737	0.0516	0.1253	0.0331	0.0492	0.0822	0.0000	137.4878	137.4878	0.0252	0.0000	138.1174

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	tons/yr										MT/yr					
2020	0.2516	1.0195	0.8399	1.6100e-003	0.0364	0.0516	0.0881	0.0151	0.0492	0.0642	0.0000	137.4876	137.4876	0.0252	0.0000	138.1173
Maximum	0.2516	1.0195	0.8399	1.6100e-003	0.0364	0.0516	0.0881	0.0151	0.0492	0.0642	0.0000	137.4876	137.4876	0.0252	0.0000	138.1173

	ROG	NOx	CO	SO2	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	50.58	0.00	29.75	54.43	0.00	21.89	0.00	0.00	0.00	0.04	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-2-2020	6-1-2020	0.6461	0.6461
2	6-2-2020	9-1-2020	0.5900	0.5900
		Highest	0.6461	0.6461

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	0.1060	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9700e-003
Energy	4.7000e-004	4.2500e-003	3.5700e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	86.0371	86.0371	3.4500e-003	7.8000e-004	86.3558
Mobile	0.2359	1.7323	2.6969	9.4800e-003	0.6743	8.6100e-003	0.6830	0.1808	8.1100e-003	0.1889	0.0000	877.7732	877.7732	0.0517	0.0000	879.0666
Waste						0.0000	0.0000		0.0000	0.0000	54.8076	0.0000	54.8076	3.2390	0.0000	135.7834
Water						0.0000	0.0000		0.0000	0.0000	0.9952	15.1299	16.1252	0.1028	2.5400e-003	19.4540
Total	0.3424	1.7366	2.7024	9.5100e-003	0.6743	8.9400e-003	0.6833	0.1808	8.4400e-003	0.1892	55.8028	978.9440	1,034.7467	3.3971	3.3200e-003	1,120.6638

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2.2 Overall Operational

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	0.1060	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9700e-003
Energy	4.7000e-004	4.2500e-003	3.5700e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	86.0371	86.0371	3.4500e-003	7.8000e-004	86.3558
Mobile	0.2359	1.7323	2.6969	9.4800e-003	0.6743	8.6100e-003	0.6830	0.1808	8.1100e-003	0.1889	0.0000	877.7732	877.7732	0.0517	0.0000	879.0666
Waste						0.0000	0.0000		0.0000	0.0000	54.8076	0.0000	54.8076	3.2390	0.0000	135.7834
Water						0.0000	0.0000		0.0000	0.0000	0.8722	13.3923	14.2645	0.0901	2.2300e-003	17.1824
Total	0.3424	1.7366	2.7024	9.5100e-003	0.6743	8.9400e-003	0.6833	0.1808	8.4400e-003	0.1892	55.6798	977.2063	1,032.8861	3.3844	3.0100e-003	1,118.3922

	ROG	NOx	CO	SO2	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	0.22	0.18	0.18	0.37	9.34	0.20

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/2/2020	3/31/2020	5	22	
2	Building Construction	Building Construction	4/1/2020	7/31/2020	5	88	
3	Paving	Paving	7/1/2020	7/15/2020	5	11	
4	Architectural Coating	Architectural Coating	8/3/2020	8/14/2020	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.25

Acres of Paving: 1.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 37,500; Non-Residential Outdoor: 12,500; Striped Parking Area: 3,000 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Trenchers	1	6.00	89	0.20
Paving	Rollers	1	7.00	80	0.38
Paving	Pavers	1	6.00	130	0.42
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36

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
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	29.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	94.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Paving	5	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2020

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	tons/yr										MT/yr					
Fugitive Dust					0.0541	0.0000	0.0541	0.0278	0.0000	0.0278	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1862	0.0929	1.8000e-004		8.8100e-003	8.8100e-003		8.1000e-003	8.1000e-003	0.0000	16.2548	16.2548	5.2600e-003	0.0000	16.3862
Total	0.0169	0.1862	0.0929	1.8000e-004	0.0541	8.8100e-003	0.0630	0.0278	8.1000e-003	0.0359	0.0000	16.2548	16.2548	5.2600e-003	0.0000	16.3862

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3.2 Grading - 2020

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	tons/yr										MT/yr					
Hauling	2.0000e-004	8.5400e-003	1.2100e-003	2.0000e-005	4.0000e-004	2.0000e-005	4.2000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	2.0942	2.0942	1.6000e-004	0.0000	2.0984
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	0.0000	0.0000
Worker	5.4000e-004	4.3000e-004	4.2700e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0338	1.0338	3.0000e-005	0.0000	1.0346
Total	7.4000e-004	8.9700e-003	5.4800e-003	3.0000e-005	1.6100e-003	3.0000e-005	1.6300e-003	4.3000e-004	3.0000e-005	4.6000e-004	0.0000	3.1280	3.1280	1.9000e-004	0.0000	3.1329

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	tons/yr										MT/yr					
Fugitive Dust					0.0211	0.0000	0.0211	0.0108	0.0000	0.0108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1862	0.0929	1.8000e-004		8.8100e-003	8.8100e-003		8.1000e-003	8.1000e-003	0.0000	16.2547	16.2547	5.2600e-003	0.0000	16.3862
Total	0.0169	0.1862	0.0929	1.8000e-004	0.0211	8.8100e-003	0.0299	0.0108	8.1000e-003	0.0189	0.0000	16.2547	16.2547	5.2600e-003	0.0000	16.3862

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3.2 Grading - 2020

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	tons/yr										MT/yr					
Hauling	2.0000e-004	8.5400e-003	1.2100e-003	2.0000e-005	3.3000e-004	2.0000e-005	3.4000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	2.0942	2.0942	1.6000e-004	0.0000	2.0984
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	0.0000	0.0000
Worker	5.4000e-004	4.3000e-004	4.2700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	1.0338	1.0338	3.0000e-005	0.0000	1.0346
Total	7.4000e-004	8.9700e-003	5.4800e-003	3.0000e-005	1.2600e-003	3.0000e-005	1.2800e-003	3.4000e-004	3.0000e-005	3.7000e-004	0.0000	3.1280	3.1280	1.9000e-004	0.0000	3.1329

3.3 Building Construction - 2020

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	tons/yr										MT/yr					
Off-Road	0.0957	0.7079	0.6200	1.0200e-003		0.0393	0.0393		0.0378	0.0378	0.0000	84.3440	84.3440	0.0163	0.0000	84.7508
Total	0.0957	0.7079	0.6200	1.0200e-003		0.0393	0.0393		0.0378	0.0378	0.0000	84.3440	84.3440	0.0163	0.0000	84.7508

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3.3 Building Construction - 2020

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	tons/yr										MT/yr					
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	0.0000	0.0000
Vendor	1.6400e-003	0.0564	0.0118	1.4000e-004	3.3300e-003	2.6000e-004	3.5900e-003	9.6000e-004	2.5000e-004	1.2100e-003	0.0000	13.4807	13.4807	9.3000e-004	0.0000	13.5041
Worker	6.3000e-003	4.9500e-003	0.0495	1.3000e-004	0.0140	9.0000e-005	0.0141	3.7200e-003	9.0000e-005	3.8000e-003	0.0000	11.9921	11.9921	3.6000e-004	0.0000	12.0011
Total	7.9400e-003	0.0613	0.0613	2.7000e-004	0.0173	3.5000e-004	0.0177	4.6800e-003	3.4000e-004	5.0100e-003	0.0000	25.4728	25.4728	1.2900e-003	0.0000	25.5052

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	tons/yr										MT/yr					
Off-Road	0.0957	0.7079	0.6200	1.0200e-003		0.0393	0.0393		0.0378	0.0378	0.0000	84.3439	84.3439	0.0163	0.0000	84.7507
Total	0.0957	0.7079	0.6200	1.0200e-003		0.0393	0.0393		0.0378	0.0378	0.0000	84.3439	84.3439	0.0163	0.0000	84.7507

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3.3 Building Construction - 2020

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	tons/yr										MT/yr					
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	0.0000	0.0000
Vendor	1.6400e-003	0.0564	0.0118	1.4000e-004	2.7200e-003	2.6000e-004	2.9700e-003	8.1000e-004	2.5000e-004	1.0600e-003	0.0000	13.4807	13.4807	9.3000e-004	0.0000	13.5041
Worker	6.3000e-003	4.9500e-003	0.0495	1.3000e-004	0.0108	9.0000e-005	0.0109	2.9400e-003	9.0000e-005	3.0300e-003	0.0000	11.9921	11.9921	3.6000e-004	0.0000	12.0011
Total	7.9400e-003	0.0613	0.0613	2.7000e-004	0.0136	3.5000e-004	0.0139	3.7500e-003	3.4000e-004	4.0900e-003	0.0000	25.4728	25.4728	1.2900e-003	0.0000	25.5052

3.4 Paving - 2020

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	tons/yr										MT/yr					
Off-Road	4.6200e-003	0.0465	0.0488	7.0000e-005		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	6.4711	6.4711	2.0500e-003	0.0000	6.5224
Paving	1.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1000e-003	0.0465	0.0488	7.0000e-005		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	6.4711	6.4711	2.0500e-003	0.0000	6.5224

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3.4 Paving - 2020

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	tons/yr										MT/yr					
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	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	0.0000	0.0000
Worker	1.4000e-004	1.1000e-004	1.0700e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2585	0.2585	1.0000e-005	0.0000	0.2586
Total	1.4000e-004	1.1000e-004	1.0700e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2585	0.2585	1.0000e-005	0.0000	0.2586

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	tons/yr										MT/yr					
Off-Road	4.6200e-003	0.0465	0.0488	7.0000e-005		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	6.4711	6.4711	2.0500e-003	0.0000	6.5224
Paving	1.4800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1000e-003	0.0465	0.0488	7.0000e-005		2.5800e-003	2.5800e-003		2.3800e-003	2.3800e-003	0.0000	6.4711	6.4711	2.0500e-003	0.0000	6.5224

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3.4 Paving - 2020

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	tons/yr										MT/yr					
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	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	0.0000	0.0000
Worker	1.4000e-004	1.1000e-004	1.0700e-003	0.0000	2.3000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2585	0.2585	1.0000e-005	0.0000	0.2586
Total	1.4000e-004	1.1000e-004	1.0700e-003	0.0000	2.3000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2585	0.2585	1.0000e-005	0.0000	0.2586

3.5 Architectural Coating - 2020

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	tons/yr										MT/yr					
Archit. Coating	0.1228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	0.1240	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791

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3.5 Architectural Coating - 2020

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	tons/yr										MT/yr					
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	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	0.0000	0.0000
Worker	1.5000e-004	1.2000e-004	1.1600e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2820	0.2820	1.0000e-005	0.0000	0.2822
Total	1.5000e-004	1.2000e-004	1.1600e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2820	0.2820	1.0000e-005	0.0000	0.2822

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	tons/yr										MT/yr					
Archit. Coating	0.1228					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	0.1240	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791

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3.5 Architectural Coating - 2020

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	tons/yr										MT/yr					
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	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	0.0000	0.0000
Worker	1.5000e-004	1.2000e-004	1.1600e-003	0.0000	2.5000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2820	0.2820	1.0000e-005	0.0000	0.2822
Total	1.5000e-004	1.2000e-004	1.1600e-003	0.0000	2.5000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2820	0.2820	1.0000e-005	0.0000	0.2822

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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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
Category	tons/yr										MT/yr					
Mitigated	0.2359	1.7323	2.6969	9.4800e-003	0.6743	8.6100e-003	0.6830	0.1808	8.1100e-003	0.1889	0.0000	877.7732	877.7732	0.0517	0.0000	879.0666
Unmitigated	0.2359	1.7323	2.6969	9.4800e-003	0.6743	8.6100e-003	0.6830	0.1808	8.1100e-003	0.1889	0.0000	877.7732	877.7732	0.0517	0.0000	879.0666

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	903.25	224.00	38.75	1,770,864	1,770,864
Parking Lot	0.00	0.00	0.00		
Total	903.25	224.00	38.75	1,770,864	1,770,864

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
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
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
Medical Office Building	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Parking Lot	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082

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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	81.4078	81.4078	3.3600e-003	7.0000e-004	81.6990
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	81.4078	81.4078	3.3600e-003	7.0000e-004	81.6990
NaturalGas Mitigated	4.7000e-004	4.2500e-003	3.5700e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.6293	4.6293	9.0000e-005	8.0000e-005	4.6568
NaturalGas Unmitigated	4.7000e-004	4.2500e-003	3.5700e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.6293	4.6293	9.0000e-005	8.0000e-005	4.6568

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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					
Medical Office Building	86750	4.7000e-004	4.2500e-003	3.5700e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.6293	4.6293	9.0000e-005	8.0000e-005	4.6568
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		4.7000e-004	4.2500e-003	3.5700e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.6293	4.6293	9.0000e-005	8.0000e-005	4.6568

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					
Medical Office Building	86750	4.7000e-004	4.2500e-003	3.5700e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.6293	4.6293	9.0000e-005	8.0000e-005	4.6568
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		4.7000e-004	4.2500e-003	3.5700e-003	3.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.6293	4.6293	9.0000e-005	8.0000e-005	4.6568

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	238000	75.8319	3.1300e-003	6.5000e-004	76.1032
Parking Lot	17500	5.5759	2.3000e-004	5.0000e-005	5.5958
Total		81.4078	3.3600e-003	7.0000e-004	81.6990

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	238000	75.8319	3.1300e-003	6.5000e-004	76.1032
Parking Lot	17500	5.5759	2.3000e-004	5.0000e-005	5.5958
Total		81.4078	3.3600e-003	7.0000e-004	81.6990

6.0 Area Detail

6.1 Mitigation Measures Area

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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
Category	tons/yr										MT/yr					
Mitigated	0.1060	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9700e-003
Unmitigated	0.1060	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9700e-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	0.0123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0936					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9700e-003
Total	0.1060	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9700e-003

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6.2 Area by SubCategory

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	0.0123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0936					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.8000e-004	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9700e-003
Total	0.1060	2.0000e-005	1.9300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.7200e-003	3.7200e-003	1.0000e-005	0.0000	3.9700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Toilet

Use Water Efficient Irrigation System

Arrowhead Medical Center - San Bernardino-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.2645	0.0901	2.2300e-003	17.1824
Unmitigated	16.1252	0.1028	2.5400e-003	19.4540

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	3.13701 / 0.597526	16.1252	0.1028	2.5400e-003	19.4540
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		16.1252	0.1028	2.5400e-003	19.4540

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	2.74928 / 0.561077	14.2645	0.0901	2.2300e-003	17.1824
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		14.2645	0.0901	2.2300e-003	17.1824

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	54.8076	3.2390	0.0000	135.7834
Unmitigated	54.8076	3.2390	0.0000	135.7834

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	270	54.8076	3.2390	0.0000	135.7834
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		54.8076	3.2390	0.0000	135.7834

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	270	54.8076	3.2390	0.0000	135.7834
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		54.8076	3.2390	0.0000	135.7834

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

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

Arrowhead Medical Center
San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	25.00	1000sqft	0.57	25,000.00	0
Parking Lot	125.00	Space	1.13	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

Project Characteristics -

Land Use -

Construction Phase - Construction phases based on Construction Questionnaire

Off-road Equipment - equipment based on Construction Questionnaire

Off-road Equipment - equipment based on Construction Questionnaire

Off-road Equipment -

Off-road Equipment -

Grading -

Trips and VMT - total hauling trips based on construction questionnaire, typical truck hauls 16 cubic yards per load. $1,500/16=93.75$

Architectural Coating -

Construction Off-road Equipment Mitigation - Based on SCAQMD standards and regulationsw

Mobile Commute Mitigation -

Water Mitigation -

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	88.00
tblConstructionPhase	NumDays	4.00	22.00
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	PhaseEndDate	2/8/2021	8/14/2020
tblConstructionPhase	PhaseEndDate	1/11/2021	7/31/2020
tblConstructionPhase	PhaseEndDate	4/6/2020	3/31/2020
tblConstructionPhase	PhaseEndDate	1/25/2021	7/15/2020
tblConstructionPhase	PhaseStartDate	1/26/2021	8/3/2020
tblConstructionPhase	PhaseStartDate	4/7/2020	4/1/2020
tblConstructionPhase	PhaseStartDate	4/1/2020	3/2/2020
tblConstructionPhase	PhaseStartDate	1/12/2021	7/1/2020
tblGrading	MaterialExported	0.00	1,500.00
tblOffRoadEquipment	HorsePower	78.00	89.00
tblOffRoadEquipment	LoadFactor	0.50	0.20
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	188.00	94.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00

2.0 Emissions Summary

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

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	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Energy	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
Mobile	2.0246	12.3042	21.3114	0.0734	4.9952	0.0624	5.0577	1.3368	0.0588	1.3956		7,474.4897	7,474.4897	0.4142		7,484.8456
Total	2.6087	12.3277	21.3463	0.0735	4.9952	0.0643	5.0595	1.3368	0.0606	1.3974		7,502.4839	7,502.4839	0.4149	5.1000e-004	7,513.0081

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	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Energy	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
Mobile	2.0246	12.3042	21.3114	0.0734	4.9952	0.0624	5.0577	1.3368	0.0588	1.3956		7,474.4897	7,474.4897	0.4142		7,484.8456
Total	2.6087	12.3277	21.3463	0.0735	4.9952	0.0643	5.0595	1.3368	0.0606	1.3974		7,502.4839	7,502.4839	0.4149	5.1000e-004	7,513.0081

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	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	Grading	Grading	3/2/2020	3/31/2020	5	22	
2	Building Construction	Building Construction	4/1/2020	7/31/2020	5	88	
3	Paving	Paving	7/1/2020	7/15/2020	5	11	
4	Architectural Coating	Architectural Coating	8/3/2020	8/14/2020	5	10	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 8.25****Acres of Paving: 1.13****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 37,500; Non-Residential Outdoor: 12,500; Striped Parking Area: 3,000 (Architectural Coating – sqft)****OffRoad Equipment**

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Trenchers	1	6.00	89	0.20
Paving	Rollers	1	7.00	80	0.38
Paving	Pavers	1	6.00	130	0.42
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36

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
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	29.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	94.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Paving	5	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2020

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					4.9220	0.0000	4.9220	2.5268	0.0000	2.5268			0.0000			0.0000
Off-Road	1.5331	16.9274	8.4490	0.0168		0.8009	0.8009		0.7368	0.7368		1,628.8908	1,628.8908	0.5268		1,642.0612
Total	1.5331	16.9274	8.4490	0.0168	4.9220	0.8009	5.7228	2.5268	0.7368	3.2636		1,628.8908	1,628.8908	0.5268		1,642.0612

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

3.2 Grading - 2020

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	0.0179	0.7669	0.0998	2.0100e-003	0.0374	1.6500e-003	0.0391	0.0103	1.5800e-003	0.0118		213.7606	213.7606	0.0158		214.1555
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	0.0546	0.0350	0.4497	1.1400e-003	0.1118	7.3000e-004	0.1125	0.0296	6.7000e-004	0.0303		113.0084	113.0084	3.4500e-003		113.0947
Total	0.0724	0.8019	0.5495	3.1500e-003	0.1492	2.3800e-003	0.1516	0.0399	2.2500e-003	0.0422		326.7690	326.7690	0.0192		327.2501

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					1.9196	0.0000	1.9196	0.9854	0.0000	0.9854			0.0000			0.0000
Off-Road	1.5331	16.9274	8.4490	0.0168		0.8009	0.8009		0.7368	0.7368	0.0000	1,628.8908	1,628.8908	0.5268		1,642.0612
Total	1.5331	16.9274	8.4490	0.0168	1.9196	0.8009	2.7204	0.9854	0.7368	1.7222	0.0000	1,628.8908	1,628.8908	0.5268		1,642.0612

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

3.2 Grading - 2020

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	0.0179	0.7669	0.0998	2.0100e-003	0.0301	1.6500e-003	0.0317	8.4600e-003	1.5800e-003	0.0100		213.7606	213.7606	0.0158		214.1555
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	0.0546	0.0350	0.4497	1.1400e-003	0.0865	7.3000e-004	0.0872	0.0234	6.7000e-004	0.0241		113.0084	113.0084	3.4500e-003		113.0947
Total	0.0724	0.8019	0.5495	3.1500e-003	0.1166	2.3800e-003	0.1190	0.0319	2.2500e-003	0.0342		326.7690	326.7690	0.0192		327.2501

3.3 Building Construction - 2020

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	2.1742	16.0878	14.0905	0.0232		0.8933	0.8933		0.8583	0.8583		2,113.0298	2,113.0298	0.4077		2,123.2215
Total	2.1742	16.0878	14.0905	0.0232		0.8933	0.8933		0.8583	0.8583		2,113.0298	2,113.0298	0.4077		2,123.2215

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

3.3 Building Construction - 2020

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	0.0364	1.2663	0.2468	3.2600e-003	0.0769	5.8300e-003	0.0827	0.0221	5.5700e-003	0.0277		343.3217	343.3217	0.0223		343.8792
Worker	0.1583	0.1016	1.3042	3.2900e-003	0.3242	2.1200e-003	0.3263	0.0860	1.9600e-003	0.0879		327.7244	327.7244	0.0100		327.9745
Total	0.1947	1.3679	1.5510	6.5500e-003	0.4010	7.9500e-003	0.4090	0.1081	7.5300e-003	0.1156		671.0461	671.0461	0.0323		671.8537

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	2.1742	16.0878	14.0905	0.0232		0.8933	0.8933		0.8583	0.8583	0.0000	2,113.0298	2,113.0298	0.4077		2,123.2215
Total	2.1742	16.0878	14.0905	0.0232		0.8933	0.8933		0.8583	0.8583	0.0000	2,113.0298	2,113.0298	0.4077		2,123.2215

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

3.3 Building Construction - 2020

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	0.0364	1.2663	0.2468	3.2600e-003	0.0626	5.8300e-003	0.0685	0.0186	5.5700e-003	0.0242		343.3217	343.3217	0.0223		343.8792
Worker	0.1583	0.1016	1.3042	3.2900e-003	0.2509	2.1200e-003	0.2530	0.0680	1.9600e-003	0.0699		327.7244	327.7244	0.0100		327.9745
Total	0.1947	1.3679	1.5510	6.5500e-003	0.3135	7.9500e-003	0.3215	0.0866	7.5300e-003	0.0942		671.0461	671.0461	0.0323		671.8537

3.4 Paving - 2020

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	0.8402	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328		1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.2692					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1093	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328		1,296.9461	1,296.9461	0.4111		1,307.2246

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

3.4 Paving - 2020

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	0.0273	0.0175	0.2249	5.7000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		56.5042	56.5042	1.7200e-003		56.5473
Total	0.0273	0.0175	0.2249	5.7000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		56.5042	56.5042	1.7200e-003		56.5473

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	0.8402	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328	0.0000	1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.2692					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1093	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328	0.0000	1,296.9461	1,296.9461	0.4111		1,307.2246

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

3.4 Paving - 2020

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	0.0273	0.0175	0.2249	5.7000e-004	0.0433	3.7000e-004	0.0436	0.0117	3.4000e-004	0.0121		56.5042	56.5042	1.7200e-003		56.5473
Total	0.0273	0.0175	0.2249	5.7000e-004	0.0433	3.7000e-004	0.0436	0.0117	3.4000e-004	0.0121		56.5042	56.5042	1.7200e-003		56.5473

3.5 Architectural Coating - 2020

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	24.5655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	24.8077	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

3.5 Architectural Coating - 2020

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	0.0328	0.0210	0.2698	6.8000e-004	0.0671	4.4000e-004	0.0675	0.0178	4.0000e-004	0.0182		67.8051	67.8051	2.0700e-003		67.8568
Total	0.0328	0.0210	0.2698	6.8000e-004	0.0671	4.4000e-004	0.0675	0.0178	4.0000e-004	0.0182		67.8051	67.8051	2.0700e-003		67.8568

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	24.5655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	24.8077	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

3.5 Architectural Coating - 2020

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	0.0328	0.0210	0.2698	6.8000e-004	0.0519	4.4000e-004	0.0524	0.0141	4.0000e-004	0.0145		67.8051	67.8051	2.0700e-003		67.8568
Total	0.0328	0.0210	0.2698	6.8000e-004	0.0519	4.4000e-004	0.0524	0.0141	4.0000e-004	0.0145		67.8051	67.8051	2.0700e-003		67.8568

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.0246	12.3042	21.3114	0.0734	4.9952	0.0624	5.0577	1.3368	0.0588	1.3956		7,474.4897	7,474.4897	0.4142		7,484.8456
Unmitigated	2.0246	12.3042	21.3114	0.0734	4.9952	0.0624	5.0577	1.3368	0.0588	1.3956		7,474.4897	7,474.4897	0.4142		7,484.8456

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	903.25	224.00	38.75	1,770,864	1,770,864
Parking Lot	0.00	0.00	0.00		
Total	903.25	224.00	38.75	1,770,864	1,770,864

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
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
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
Medical Office Building	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Parking Lot	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

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	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
NaturalGas Unmitigated	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

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					
Medical Office Building	237.671	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
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		2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275

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					
Medical Office Building	0.237671	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
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		2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275

6.0 Area Detail

6.1 Mitigation Measures Area

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Unmitigated	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

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	0.0673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4500e-003	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Total	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

Arrowhead Medical Center - San Bernardino-South Coast County, Summer

6.2 Area by SubCategory

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	0.0673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4500e-003	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Total	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Toilet
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Arrowhead Medical Center - San Bernardino-South Coast County, Summer

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

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

Arrowhead Medical Center
San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	25.00	1000sqft	0.57	25,000.00	0
Parking Lot	125.00	Space	1.13	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

Project Characteristics -

Land Use -

Construction Phase - Construction phases based on Construction Questionnaire

Off-road Equipment - equipment based on Construction Questionnaire

Off-road Equipment - equipment based on Construction Questionnaire

Off-road Equipment -

Off-road Equipment -

Grading -

Trips and VMT - total hauling trips based on construction questionnaire, typical truck hauls 16 cubic yards per load. $1,500/16=93.75$

Architectural Coating -

Construction Off-road Equipment Mitigation - Based on SCAQMD standards and regulationsw

Mobile Commute Mitigation -

Water Mitigation -

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	88.00
tblConstructionPhase	NumDays	4.00	22.00
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	PhaseEndDate	2/8/2021	8/14/2020
tblConstructionPhase	PhaseEndDate	1/11/2021	7/31/2020
tblConstructionPhase	PhaseEndDate	4/6/2020	3/31/2020
tblConstructionPhase	PhaseEndDate	1/25/2021	7/15/2020
tblConstructionPhase	PhaseStartDate	1/26/2021	8/3/2020
tblConstructionPhase	PhaseStartDate	4/7/2020	4/1/2020
tblConstructionPhase	PhaseStartDate	4/1/2020	3/2/2020
tblConstructionPhase	PhaseStartDate	1/12/2021	7/1/2020
tblGrading	MaterialExported	0.00	1,500.00
tblOffRoadEquipment	HorsePower	78.00	89.00
tblOffRoadEquipment	LoadFactor	0.50	0.20
tblOffRoadEquipment	OffRoadEquipmentType	Forklifts	Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	188.00	94.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00

2.0 Emissions Summary

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

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	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Energy	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
Mobile	1.7608	12.3025	19.0245	0.0675	4.9952	0.0630	5.0583	1.3368	0.0593	1.3961		6,881.7520	6,881.7520	0.4234		6,892.3368
Total	2.3449	12.3259	19.0595	0.0676	4.9952	0.0649	5.0601	1.3368	0.0612	1.3980		6,909.7462	6,909.7462	0.4240	5.1000e-004	6,920.4994

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	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Energy	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
Mobile	1.7608	12.3025	19.0245	0.0675	4.9952	0.0630	5.0583	1.3368	0.0593	1.3961		6,881.7520	6,881.7520	0.4234		6,892.3368
Total	2.3449	12.3259	19.0595	0.0676	4.9952	0.0649	5.0601	1.3368	0.0612	1.3980		6,909.7462	6,909.7462	0.4240	5.1000e-004	6,920.4994

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	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	Grading	Grading	3/2/2020	3/31/2020	5	22	
2	Building Construction	Building Construction	4/1/2020	7/31/2020	5	88	
3	Paving	Paving	7/1/2020	7/15/2020	5	11	
4	Architectural Coating	Architectural Coating	8/3/2020	8/14/2020	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.25

Acres of Paving: 1.13

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 37,500; Non-Residential Outdoor: 12,500; Striped Parking Area: 3,000 (Architectural Coating – sqft)

OffRoad Equipment

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Trenchers	1	6.00	89	0.20
Paving	Rollers	1	7.00	80	0.38
Paving	Pavers	1	6.00	130	0.42
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36

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
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	29.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	94.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Paving	5	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2020

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					4.9220	0.0000	4.9220	2.5268	0.0000	2.5268			0.0000			0.0000
Off-Road	1.5331	16.9274	8.4490	0.0168		0.8009	0.8009		0.7368	0.7368		1,628.8908	1,628.8908	0.5268		1,642.0612
Total	1.5331	16.9274	8.4490	0.0168	4.9220	0.8009	5.7228	2.5268	0.7368	3.2636		1,628.8908	1,628.8908	0.5268		1,642.0612

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

3.2 Grading - 2020

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	0.0191	0.7592	0.1225	1.9300e-003	0.0374	1.6900e-003	0.0391	0.0103	1.6200e-003	0.0119		204.4835	204.4835	0.0174		204.9193
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	0.0546	0.0369	0.3696	1.0200e-003	0.1118	7.3000e-004	0.1125	0.0296	6.7000e-004	0.0303		101.3750	101.3750	3.0300e-003		101.4506
Total	0.0737	0.7961	0.4921	2.9500e-003	0.1492	2.4200e-003	0.1516	0.0399	2.2900e-003	0.0422		305.8585	305.8585	0.0205		306.3699

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					1.9196	0.0000	1.9196	0.9854	0.0000	0.9854			0.0000			0.0000
Off-Road	1.5331	16.9274	8.4490	0.0168		0.8009	0.8009		0.7368	0.7368	0.0000	1,628.8908	1,628.8908	0.5268		1,642.0612
Total	1.5331	16.9274	8.4490	0.0168	1.9196	0.8009	2.7204	0.9854	0.7368	1.7222	0.0000	1,628.8908	1,628.8908	0.5268		1,642.0612

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

3.2 Grading - 2020

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	0.0191	0.7592	0.1225	1.9300e-003	0.0301	1.6900e-003	0.0318	8.4600e-003	1.6200e-003	0.0101		204.4835	204.4835	0.0174		204.9193
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	0.0546	0.0369	0.3696	1.0200e-003	0.0865	7.3000e-004	0.0872	0.0234	6.7000e-004	0.0241		101.3750	101.3750	3.0300e-003		101.4506
Total	0.0737	0.7961	0.4921	2.9500e-003	0.1166	2.4200e-003	0.1190	0.0319	2.2900e-003	0.0342		305.8585	305.8585	0.0205		306.3699

3.3 Building Construction - 2020

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	2.1742	16.0878	14.0905	0.0232		0.8933	0.8933		0.8583	0.8583		2,113.0298	2,113.0298	0.4077		2,123.2215
Total	2.1742	16.0878	14.0905	0.0232		0.8933	0.8933		0.8583	0.8583		2,113.0298	2,113.0298	0.4077		2,123.2215

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

3.3 Building Construction - 2020

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	0.0384	1.2561	0.2860	3.1300e-003	0.0769	5.9000e-003	0.0828	0.0221	5.6400e-003	0.0278		330.0001	330.0001	0.0247		330.6165
Worker	0.1584	0.1069	1.0719	2.9500e-003	0.3242	2.1200e-003	0.3263	0.0860	1.9600e-003	0.0879		293.9874	293.9874	8.7800e-003		294.2069
Total	0.1968	1.3630	1.3580	6.0800e-003	0.4010	8.0200e-003	0.4090	0.1081	7.6000e-003	0.1157		623.9876	623.9876	0.0334		624.8234

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	2.1742	16.0878	14.0905	0.0232		0.8933	0.8933		0.8583	0.8583	0.0000	2,113.0298	2,113.0298	0.4077		2,123.2215
Total	2.1742	16.0878	14.0905	0.0232		0.8933	0.8933		0.8583	0.8583	0.0000	2,113.0298	2,113.0298	0.4077		2,123.2215

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

3.3 Building Construction - 2020

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	0.0384	1.2561	0.2860	3.1300e-003	0.0626	5.9000e-003	0.0685	0.0186	5.6400e-003	0.0243		330.0001	330.0001	0.0247		330.6165
Worker	0.1584	0.1069	1.0719	2.9500e-003	0.2509	2.1200e-003	0.2530	0.0680	1.9600e-003	0.0699		293.9874	293.9874	8.7800e-003		294.2069
Total	0.1968	1.3630	1.3580	6.0800e-003	0.3135	8.0200e-003	0.3215	0.0866	7.6000e-003	0.0942		623.9876	623.9876	0.0334		624.8234

3.4 Paving - 2020

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	0.8402	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328		1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.2692					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1093	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328		1,296.9461	1,296.9461	0.4111		1,307.2246

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

3.4 Paving - 2020

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	0.0273	0.0184	0.1848	5.1000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		50.6875	50.6875	1.5100e-003		50.7253
Total	0.0273	0.0184	0.1848	5.1000e-004	0.0559	3.7000e-004	0.0563	0.0148	3.4000e-004	0.0152		50.6875	50.6875	1.5100e-003		50.7253

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	0.8402	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328	0.0000	1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.2692					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1093	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328	0.0000	1,296.9461	1,296.9461	0.4111		1,307.2246

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

3.4 Paving - 2020

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	0.0273	0.0184	0.1848	5.1000e-004	0.0433	3.7000e-004	0.0436	0.0117	3.4000e-004	0.0121		50.6875	50.6875	1.5100e-003		50.7253
Total	0.0273	0.0184	0.1848	5.1000e-004	0.0433	3.7000e-004	0.0436	0.0117	3.4000e-004	0.0121		50.6875	50.6875	1.5100e-003		50.7253

3.5 Architectural Coating - 2020

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	24.5655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	24.8077	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

3.5 Architectural Coating - 2020

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	0.0328	0.0221	0.2218	6.1000e-004	0.0671	4.4000e-004	0.0675	0.0178	4.0000e-004	0.0182		60.8250	60.8250	1.8200e-003		60.8704
Total	0.0328	0.0221	0.2218	6.1000e-004	0.0671	4.4000e-004	0.0675	0.0178	4.0000e-004	0.0182		60.8250	60.8250	1.8200e-003		60.8704

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	24.5655					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	24.8077	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

3.5 Architectural Coating - 2020

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	0.0328	0.0221	0.2218	6.1000e-004	0.0519	4.4000e-004	0.0524	0.0141	4.0000e-004	0.0145		60.8250	60.8250	1.8200e-003		60.8704
Total	0.0328	0.0221	0.2218	6.1000e-004	0.0519	4.4000e-004	0.0524	0.0141	4.0000e-004	0.0145		60.8250	60.8250	1.8200e-003		60.8704

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.7608	12.3025	19.0245	0.0675	4.9952	0.0630	5.0583	1.3368	0.0593	1.3961		6,881.7520	6,881.7520	0.4234		6,892.3368
Unmitigated	1.7608	12.3025	19.0245	0.0675	4.9952	0.0630	5.0583	1.3368	0.0593	1.3961		6,881.7520	6,881.7520	0.4234		6,892.3368

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	903.25	224.00	38.75	1,770,864	1,770,864
Parking Lot	0.00	0.00	0.00		
Total	903.25	224.00	38.75	1,770,864	1,770,864

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
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
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
Medical Office Building	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082
Parking Lot	0.546179	0.037976	0.179086	0.122965	0.018430	0.005460	0.017497	0.061396	0.001337	0.001657	0.006117	0.000817	0.001082

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

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	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
NaturalGas Unmitigated	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

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					
Medical Office Building	237.671	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
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		2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275

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	lb/day										lb/day					
Medical Office Building	0.237671	2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275
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		2.5600e-003	0.0233	0.0196	1.4000e-004		1.7700e-003	1.7700e-003		1.7700e-003	1.7700e-003		27.9613	27.9613	5.4000e-004	5.1000e-004	28.1275

6.0 Area Detail

6.1 Mitigation Measures Area

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Unmitigated	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

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	0.0673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4500e-003	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Total	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

Arrowhead Medical Center - San Bernardino-South Coast County, Winter

6.2 Area by SubCategory

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	0.0673					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4500e-003	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350
Total	0.5815	1.4000e-004	0.0154	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0328	0.0328	9.0000e-005		0.0350

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Toilet
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Arrowhead Medical Center - San Bernardino-South Coast County, Winter

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

DATA, EQUIPMENT AND TIME ESTIMATE – General Information

Project: _____

LAND USE TYPE	UNITS/SF
R-17 (Zoning)	Bldg = 25,000 SF
COMMERCIAL (USE)	LAND = 2.06 ACRES

ZONING (Will this project require one?)

Zone Change? Yes
 No

GPA? Yes
 No

START DATES – One-Phase

	(Month/Year)	Duration (Months)
Demolition (if applicable):	—	—
Grading:	03/2020	1
Paving:	07/2020	.5 (1/2)
Construction:	04/2020	4
Painting:	08/2020	.5 (1/2)

Pile Driving

Is pile driving required? Yes
 No

Type of pile driving (e.g., diesel hammer, hydraulic hammer, hydraulic press-in, vibratory, etc.):

Number of piles:

Duration (days):

OR

START DATES – Multi-Phase

	(Month/Year)	Duration (Months)
Phase 1 Demolition:	/	/
Grading:		
Paving:		
Construction:		
Painting:		
Phase 2 Demolition:		
Grading:		
Paving:		
Construction:		
Painting:		
Phase 3 Demolition:		
Grading:		
Paving:		
Construction:		
Painting:		

COMPLETION DATE

For ALL Construction:

DEMOLITION DETAILS

Project: _____

DEMOLITION

Units	Type of Equipment
	Bore/Drill Rigs
	Concrete/Industrial Saws
	Crane
	Crawler Tractors
	Crushing/Processing Equip.
	Excavators
	Graders
	Off-Highway Tractors
	Off-Highway Trucks
	Other Equipment
	Pavers
	Paving Equipment
	Rollers
	Rough Terrain Forklifts
	Rubber Tired Dozers
	Rubber Tired Loaders
	Scrapers
	Signal Boards
	Skid Steer Loaders
	Surfacing Equipment
	Tractors/Loaders/Backhoes
	Trenchers

BUILDING DEMOLITION

Structure Dimensions

Width	Length	Height

or Tons of Demolished Material

Haul Truck Data:

Number of Trips/Day: _____
 Round Trip to Disposal Site: _____
 Approx. Cubic Yards of Each Truck _____

(miles)

Asbestos Containing Material:

Known to be Present? Yes
 No

Underground Storage Tanks (UST):

Known to be Present? Yes
 No

RELATED ADDITIONAL INFORMATION:

GRADING EQUIPMENT / DUST CONTROL DETAILS

Project: _____

GRADING

Units	Type of Equipment
	Bore/Drill Rigs
1	Concrete/Industrial Saws
	Crane
	Crawler Tractors
	Crushing/Processing Equip.
	Excavators
1	Graders
	Off-Highway Tractors
	Off-Highway Trucks
	Other Equipment
	Pavers
	Paving Equipment
	Pile Drivers
	Rollers
	Rough Terrain Forklifts
1	Rubber Tired Dozers
1	Rubber Tired Loaders
	Scrapers
	Signal Boards
	Skid Steer Loaders
	Surfacing Equipment
2	Tractors/Loaders/Backhoes
1	Trenchers

DUST CONTROL

Will Haul Roads be paved? (Check One)
 Yes
 No

How will dust be controlled? (Check One)
 Water? (Recommended)
 Chemical?
 Other? Specify: _____

How often will the control method be applied? (Check One)
 > 3 Times / Day (Recommended)
 > 1 Time / Day
 Other

EARTHWORK

Total Cut	1250	cubic yards
Total Fill	350	cubic yards
Duration	30	days

SOIL IMPORT / EXPORT INFORMATION

Soil to be imported	0	cubic yards
Soil to be exported	1500	cubic yards
Hauling Days	4	(# of days soil will be brought in or out)
Roundtrip Distance	10	(distance from site to haul/dump site and back)

RELATED ADDITIONAL INFORMATION:

CONSTRUCTION, PAVING, AND PAINTING EQUIPMENT DETAILS

Project: _____

CONSTRUCTION		PAVING		BUILDING INSULATION – TITLE 24	
Units	Type of Equipment	Units	Type of Equipment	Will structures MEET	2019 Title 24 requirements?
	Bore/Drill Rigs		Graders		<input checked="" type="checkbox"/> YES
	Concrete/Industrial Saws		Off-Highway Trucks		<input checked="" type="checkbox"/> NO
/	Crane		Other Equipment	Will structures EXCEED	If they EXCEED 2019 Title 24 requirements – by what percentage?
	Crawler Tractors	/	Pavers	Check:	10% <input type="checkbox"/>
	Crushing/Processing Equip.	/	Paving Equipment		20% <input type="checkbox"/>
	Excavators		Rollers		30% <input type="checkbox"/>
	Graders		Rubber Tired Loaders	Other:	<input type="text"/> (Fill in %)
	Off-Highway Tractors		Signal Boards		
	Off-Highway Trucks		Surfacing Equipment		
	Other Equipment		Tractors/Loaders/Backhoes		
	Pavers				
/	Paving Equipment				
	Pile Drivers				
	Rollers				
	Rough Terrain Forklifts				
	Rubber Tired Dozers				
	Rubber Tired Loaders				
	Scrapers				
	Signal Boards				
	Skid Steer Loaders				
	Surfacing Equipment				
	Tractors/Loaders/Backhoes				
/	Trenchers				

PAVING AREA (Includes existing street widening/excludes concreted areas)

.88 ACRES

Total Acres Paved: (estimate)

(Please note that "paving" does NOT include concreted areas.)

Please describe any structures/buildings will be pre-coated or painted (please provide square footages as well):

1 (ONE) TREE STANDING CONCRETE TILT UP BUILDING (25000 SF)
WILL BE PAINTED ON ALL 4 SIDES.