

Acton Retail Center - South Coast AQMD Air District, Annual

Acton Retail Center
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1.60	1000sqft	0.04	1,600.00	0
Other Asphalt Surfaces	0.55	Acre	0.55	23,958.00	0
Parking Lot	66.00	Space	0.59	26,400.00	0
City Park	0.55	Acre	0.55	23,958.00	0
Fast Food Restaurant with Drive Thru	3.30	1000sqft	0.08	3,300.00	0
Strip Mall	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
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 - Construction start date conservatively assumed to be November 2021. Land use setting "urban" bc immediate vicinity of project site contains existing commercial, food service, and multi-family housing.

Land Use - "Retail" = 6,000SF bldg; "Industrial" = 1,600SF storage bldg; "Recreational City Park" assumed for landscaping; "Parking Other Asphalt Surfaces" assumed for remainder of paved/circulation areas

Construction Phase - No "Demolition" phase bc vacant project site. Adjusted "Grading" and "Bldg Construction" phases based on proposed fill import

Off-road Equipment - CalEEMod default assumption

Trips and VMT - CalEEMod default construction trips. "Total Trips Hauling" default update based on fill import

Grading - 590 CY cut and fill to be balanced on site with additional 12,945 CY imported for building pads and parking areas. 590 CY not included here bc net zero change. Total areas graded 1.95 acre (site)

Vehicle Trips - "0 trips" for "City Park" (landscaping) and "Unrefrig. Warehouse" (1,600 SF storage bldg for retail and food service uses). Fast Food adjusted to 471 from TIA (ITE 10th Ed).

Energy Use -

Water And Wastewater - "Warehouse" (storage) water use 0

Solid Waste - "warehouse" (storage) waste gen 0

Construction Off-road Equipment Mitigation - Min site watering assumed during construction to minimize dust

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 2020 CBC & Cal Green application

Water Mitigation -

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Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	200.00	160.00
tblConstructionPhase	NumDays	4.00	21.00
tblGrading	AcresOfGrading	7.88	1.95
tblGrading	AcresOfGrading	1.00	1.95
tblGrading	MaterialImported	0.00	12,945.00
tblSolidWaste	SolidWasteGenerationRate	1.50	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	722.03	471.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	542.72	471.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	496.12	471.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	370,000.00	0.00

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-1-2021	1-31-2022	0.7262	0.7262
2	2-1-2022	4-30-2022	0.4988	0.4988
3	5-1-2022	7-31-2022	0.4424	0.4424
4	8-1-2022	9-30-2022	0.0580	0.0580
		Highest	0.7262	0.7262

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	0.0487	1.0000e-005	1.0000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9400e-003	1.9400e-003	1.0000e-005	0.0000	2.0600e-003
Energy	4.1700e-003	0.0379	0.0318	2.3000e-004		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	118.3880	118.3880	3.9800e-003	1.4200e-003	118.9090
Mobile	0.3748	1.8843	3.3034	0.0106	0.7976	8.8000e-003	0.8064	0.2137	8.2000e-003	0.2219	0.0000	980.3376	980.3376	0.0577	0.0000	981.7788
Waste						0.0000	0.0000		0.0000	0.0000	9.0047	0.0000	9.0047	0.5322	0.0000	22.3087
Water						0.0000	0.0000		0.0000	0.0000	0.4588	9.5098	9.9686	0.0475	1.1900e-003	11.5122
Total	0.4277	1.9222	3.3362	0.0108	0.7976	0.0117	0.8093	0.2137	0.0111	0.2248	9.4635	1,108.2374	1,117.7008	0.6413	2.6100e-003	1,134.5109

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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	0.0487	1.0000e-005	1.0000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9400e-003	1.9400e-003	1.0000e-005	0.0000	2.0600e-003
Energy	4.0500e-003	0.0368	0.0309	2.2000e-004		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003	0.0000	114.7080	114.7080	3.8500e-003	1.3700e-003	115.2130
Mobile	0.3799	1.9216	3.4316	0.0112	0.8478	9.2300e-003	0.8571	0.2272	8.6100e-003	0.2358	0.0000	1,032.3130	1,032.3130	0.0598	0.0000	1,033.8069
Waste						0.0000	0.0000		0.0000	0.0000	9.0047	0.0000	9.0047	0.5322	0.0000	22.3087
Water						0.0000	0.0000		0.0000	0.0000	0.3872	8.3598	8.7470	0.0401	1.0100e-003	10.0510
Total	0.4327	1.9584	3.4635	0.0114	0.8478	0.0120	0.8598	0.2272	0.0114	0.2386	9.3919	1,155.3827	1,164.7746	0.6359	2.3800e-003	1,181.3817

	ROG	NOx	CO	SO2	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	-1.16	-1.88	-3.82	-5.18	-6.30	-2.91	-6.25	-6.30	-2.89	-6.13	0.76	-4.25	-4.21	0.84	8.81	-4.13

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	Site Preparation	Site Preparation	11/27/2021	11/30/2021	5	2	
2	Grading	Grading	12/1/2021	12/29/2021	5	21	
3	Building Construction	Building Construction	12/7/2021	7/18/2022	5	160	
4	Paving	Paving	9/13/2022	9/26/2022	5	10	
5	Architectural Coating	Architectural Coating	9/27/2022	10/10/2022	5	10	

Acres of Grading (Site Preparation Phase): 1.95

Acres of Grading (Grading Phase): 1.95

Acres of Paving: 1.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 16,350; Non-Residential Outdoor: 5,450; Striped Parking Area: 3,021 (Architectural Coating – sqft)

OffRoad Equipment

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

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1,618.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2021

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					6.3000e-003	0.0000	6.3000e-003	3.0100e-003	0.0000	3.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	1.5600e-003	0.0174	7.5600e-003	2.0000e-005	6.3000e-003	7.7000e-004	7.0700e-003	3.0100e-003	7.0000e-004	3.7100e-003	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241

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3.2 Site Preparation - 2021

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	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0765	0.0765	0.0000	0.0000	0.0765
Total	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0765	0.0765	0.0000	0.0000	0.0765

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					2.8400e-003	0.0000	2.8400e-003	1.3500e-003	0.0000	1.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	1.5600e-003	0.0174	7.5600e-003	2.0000e-005	2.8400e-003	7.7000e-004	3.6100e-003	1.3500e-003	7.0000e-004	2.0500e-003	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241

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3.2 Site Preparation - 2021

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	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0765	0.0765	0.0000	0.0000	0.0765
Total	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0765	0.0765	0.0000	0.0000	0.0765

3.3 Grading - 2021

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					0.0492	0.0000	0.0492	0.0263	0.0000	0.0263	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0135	0.1505	0.0665	1.5000e-004		6.7000e-003	6.7000e-003		6.1600e-003	6.1600e-003	0.0000	13.0028	13.0028	4.2100e-003	0.0000	13.1080
Total	0.0135	0.1505	0.0665	1.5000e-004	0.0492	6.7000e-003	0.0559	0.0263	6.1600e-003	0.0325	0.0000	13.0028	13.0028	4.2100e-003	0.0000	13.1080

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3.3 Grading - 2021

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	5.9400e-003	0.2108	0.0447	6.2000e-004	0.0139	6.4000e-004	0.0146	3.8200e-003	6.1000e-004	4.4300e-003	0.0000	60.4080	60.4080	4.1400e-003	0.0000	60.5114
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	3.5000e-004	2.6000e-004	2.9300e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8028	0.8028	2.0000e-005	0.0000	0.8033
Total	6.2900e-003	0.2111	0.0476	6.3000e-004	0.0148	6.5000e-004	0.0155	4.0600e-003	6.2000e-004	4.6800e-003	0.0000	61.2107	61.2107	4.1600e-003	0.0000	61.3147

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					0.0221	0.0000	0.0221	0.0118	0.0000	0.0118	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0135	0.1505	0.0665	1.5000e-004		6.7000e-003	6.7000e-003		6.1600e-003	6.1600e-003	0.0000	13.0028	13.0028	4.2100e-003	0.0000	13.1080
Total	0.0135	0.1505	0.0665	1.5000e-004	0.0221	6.7000e-003	0.0288	0.0118	6.1600e-003	0.0180	0.0000	13.0028	13.0028	4.2100e-003	0.0000	13.1080

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3.3 Grading - 2021

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	5.9400e-003	0.2108	0.0447	6.2000e-004	0.0139	6.4000e-004	0.0146	3.8200e-003	6.1000e-004	4.4300e-003	0.0000	60.4080	60.4080	4.1400e-003	0.0000	60.5114
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	3.5000e-004	2.6000e-004	2.9300e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8028	0.8028	2.0000e-005	0.0000	0.8033
Total	6.2900e-003	0.2111	0.0476	6.3000e-004	0.0148	6.5000e-004	0.0155	4.0600e-003	6.2000e-004	4.6800e-003	0.0000	61.2107	61.2107	4.1600e-003	0.0000	61.3147

3.4 Building Construction - 2021

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	0.0172	0.1295	0.1225	2.1000e-004		6.5000e-003	6.5000e-003		6.2800e-003	6.2800e-003	0.0000	17.2470	17.2470	3.0800e-003	0.0000	17.3240
Total	0.0172	0.1295	0.1225	2.1000e-004		6.5000e-003	6.5000e-003		6.2800e-003	6.2800e-003	0.0000	17.2470	17.2470	3.0800e-003	0.0000	17.3240

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3.4 Building Construction - 2021

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	3.8000e-004	0.0129	3.1900e-003	3.0000e-005	8.4000e-004	3.0000e-005	8.6000e-004	2.4000e-004	2.0000e-005	2.7000e-004	0.0000	3.2472	3.2472	2.1000e-004	0.0000	3.2523
Worker	1.3900e-003	1.0200e-003	0.0116	4.0000e-005	3.6500e-003	3.0000e-005	3.6800e-003	9.7000e-004	3.0000e-005	9.9000e-004	0.0000	3.1776	3.1776	9.0000e-005	0.0000	3.1797
Total	1.7700e-003	0.0139	0.0148	7.0000e-005	4.4900e-003	6.0000e-005	4.5400e-003	1.2100e-003	5.0000e-005	1.2600e-003	0.0000	6.4247	6.4247	3.0000e-004	0.0000	6.4320

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	0.0172	0.1295	0.1225	2.1000e-004		6.5000e-003	6.5000e-003		6.2800e-003	6.2800e-003	0.0000	17.2470	17.2470	3.0800e-003	0.0000	17.3240
Total	0.0172	0.1295	0.1225	2.1000e-004		6.5000e-003	6.5000e-003		6.2800e-003	6.2800e-003	0.0000	17.2470	17.2470	3.0800e-003	0.0000	17.3240

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3.4 Building Construction - 2021

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	3.8000e-004	0.0129	3.1900e-003	3.0000e-005	8.4000e-004	3.0000e-005	8.6000e-004	2.4000e-004	2.0000e-005	2.7000e-004	0.0000	3.2472	3.2472	2.1000e-004	0.0000	3.2523
Worker	1.3900e-003	1.0200e-003	0.0116	4.0000e-005	3.6500e-003	3.0000e-005	3.6800e-003	9.7000e-004	3.0000e-005	9.9000e-004	0.0000	3.1776	3.1776	9.0000e-005	0.0000	3.1797
Total	1.7700e-003	0.0139	0.0148	7.0000e-005	4.4900e-003	6.0000e-005	4.5400e-003	1.2100e-003	5.0000e-005	1.2600e-003	0.0000	6.4247	6.4247	3.0000e-004	0.0000	6.4320

3.4 Building Construction - 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	tons/yr										MT/yr					
Off-Road	0.1162	0.8815	0.8972	1.5500e-003		0.0415	0.0415		0.0401	0.0401	0.0000	128.0117	128.0117	0.0223	0.0000	128.5691
Total	0.1162	0.8815	0.8972	1.5500e-003		0.0415	0.0415		0.0401	0.0401	0.0000	128.0117	128.0117	0.0223	0.0000	128.5691

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3.4 Building Construction - 2022

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	2.6300e-003	0.0906	0.0224	2.5000e-004	6.2200e-003	1.7000e-004	6.3900e-003	1.8000e-003	1.6000e-004	1.9500e-003	0.0000	23.8851	23.8851	1.4700e-003	0.0000	23.9218
Worker	9.6600e-003	6.8700e-003	0.0794	2.5000e-004	0.0271	2.0000e-004	0.0273	7.1900e-003	1.8000e-004	7.3700e-003	0.0000	22.7355	22.7355	5.7000e-004	0.0000	22.7498
Total	0.0123	0.0974	0.1018	5.0000e-004	0.0333	3.7000e-004	0.0337	8.9900e-003	3.4000e-004	9.3200e-003	0.0000	46.6206	46.6206	2.0400e-003	0.0000	46.6715

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	0.1162	0.8815	0.8972	1.5500e-003		0.0415	0.0415		0.0401	0.0401	0.0000	128.0116	128.0116	0.0223	0.0000	128.5690
Total	0.1162	0.8815	0.8972	1.5500e-003		0.0415	0.0415		0.0401	0.0401	0.0000	128.0116	128.0116	0.0223	0.0000	128.5690

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3.4 Building Construction - 2022

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	2.6300e-003	0.0906	0.0224	2.5000e-004	6.2200e-003	1.7000e-004	6.3900e-003	1.8000e-003	1.6000e-004	1.9500e-003	0.0000	23.8851	23.8851	1.4700e-003	0.0000	23.9218
Worker	9.6600e-003	6.8700e-003	0.0794	2.5000e-004	0.0271	2.0000e-004	0.0273	7.1900e-003	1.8000e-004	7.3700e-003	0.0000	22.7355	22.7355	5.7000e-004	0.0000	22.7498
Total	0.0123	0.0974	0.1018	5.0000e-004	0.0333	3.7000e-004	0.0337	8.9900e-003	3.4000e-004	9.3200e-003	0.0000	46.6206	46.6206	2.0400e-003	0.0000	46.6715

3.5 Paving - 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	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	1.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.9300e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315

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3.5 Paving - 2022

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	2.5000e-004	1.8000e-004	2.0900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5989	0.5989	2.0000e-005	0.0000	0.5993
Total	2.5000e-004	1.8000e-004	2.0900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5989	0.5989	2.0000e-005	0.0000	0.5993

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	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9314
Paving	1.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.9300e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9314

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3.5 Paving - 2022

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	2.5000e-004	1.8000e-004	2.0900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5989	0.5989	2.0000e-005	0.0000	0.5993
Total	2.5000e-004	1.8000e-004	2.0900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5989	0.5989	2.0000e-005	0.0000	0.5993

3.6 Architectural Coating - 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	tons/yr										MT/yr					
Archit. Coating	0.0575					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	0.0585	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787

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3.6 Architectural Coating - 2022

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	1.0000e-004	1.1300e-003	0.0000	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3225	0.3225	1.0000e-005	0.0000	0.3227
Total	1.4000e-004	1.0000e-004	1.1300e-003	0.0000	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3225	0.3225	1.0000e-005	0.0000	0.3227

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	0.0575					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	0.0585	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787

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3.6 Architectural Coating - 2022

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	1.0000e-004	1.1300e-003	0.0000	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3225	0.3225	1.0000e-005	0.0000	0.3227
Total	1.4000e-004	1.0000e-004	1.1300e-003	0.0000	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3225	0.3225	1.0000e-005	0.0000	0.3227

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Acton Retail Center - South Coast AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.3799	1.9216	3.4316	0.0112	0.8478	9.2300e-003	0.8571	0.2272	8.6100e-003	0.2358	0.0000	1,032.3130	1,032.3130	0.0598	0.0000	1,033.8069
Unmitigated	0.3748	1.8843	3.3034	0.0106	0.7976	8.8000e-003	0.8064	0.2137	8.2000e-003	0.2219	0.0000	980.3376	980.3376	0.0577	0.0000	981.7788

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	1,554.30	1,554.30	1554.30	1,635,726	1,738,777
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	265.92	252.24	122.58	463,260	492,446
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,820.22	1,806.54	1,676.88	2,098,986	2,231,222

4.3 Trip Type Information

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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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Other 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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
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	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Fast Food Restaurant with Drive Thru	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Other Asphalt Surfaces	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Parking Lot	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Strip Mall	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Unrefrigerated Warehouse-No	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

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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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	74.6729	74.6729	3.0800e-003	6.4000e-004	74.9401
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.1516	77.1516	3.1900e-003	6.6000e-004	77.4276
NaturalGas Mitigated	4.0500e-003	0.0368	0.0309	2.2000e-004		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003	0.0000	40.0350	40.0350	7.7000e-004	7.3000e-004	40.2730
NaturalGas Unmitigated	4.1700e-003	0.0379	0.0318	2.3000e-004		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	41.2364	41.2364	7.9000e-004	7.6000e-004	41.4814

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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					
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
Fast Food Restaurant with Drive Thru	761508	4.1100e-003	0.0373	0.0314	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003	0.0000	40.6370	40.6370	7.8000e-004	7.5000e-004	40.8785
Other 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
Strip Mall	9840	5.0000e-005	4.8000e-004	4.1000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5251	0.5251	1.0000e-005	1.0000e-005	0.5282
Unrefrigerated Warehouse-No Rail	1392	1.0000e-005	7.0000e-005	6.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.0743	0.0743	0.0000	0.0000	0.0747
Total		4.1700e-003	0.0379	0.0318	2.2000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	41.2364	41.2364	7.9000e-004	7.6000e-004	41.4814

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5.2 Energy by Land Use - NaturalGas

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
Fast Food Restaurant with Drive Thru	740233	3.9900e-003	0.0363	0.0305	2.2000e-004		2.7600e-003	2.7600e-003		2.7600e-003	2.7600e-003	0.0000	39.5017	39.5017	7.6000e-004	7.2000e-004	39.7364
Other 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
Strip Mall	8805	5.0000e-005	4.3000e-004	3.6000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4699	0.4699	1.0000e-005	1.0000e-005	0.4727
Unrefrigerated Warehouse-No Rail	1190.4	1.0000e-005	6.0000e-005	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0635	0.0635	0.0000	0.0000	0.0639
Total		4.0500e-003	0.0368	0.0309	2.2000e-004		2.7900e-003	2.7900e-003		2.7900e-003	2.7900e-003	0.0000	40.0350	40.0350	7.7000e-004	7.3000e-004	40.2730

Acton Retail Center - South Coast AQMD Air District, Annual

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
Fast Food Restaurant with Drive Thru	145662	46.4110	1.9200e-003	4.0000e-004	46.5771
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	9240	2.9441	1.2000e-004	3.0000e-005	2.9546
Strip Mall	81000	25.8083	1.0700e-003	2.2000e-004	25.9007
Unrefrigerated Warehouse-No Rail	6240	1.9882	8.0000e-005	2.0000e-005	1.9953
Total		77.1516	3.1900e-003	6.7000e-004	77.4276

Acton Retail Center - South Coast AQMD Air District, Annual

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use kWh/yr	Total CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e MT/yr
City Park	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	141648	45.1319	1.8600e-003	3.9000e-004	45.2934
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	9240	2.9441	1.2000e-004	3.0000e-005	2.9546
Strip Mall	77391	24.6584	1.0200e-003	2.1000e-004	24.7467
Unrefrigerated Warehouse-No Rail	6084	1.9385	8.0000e-005	2.0000e-005	1.9454
Total		74.6729	3.0800e-003	6.5000e-004	74.9401

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

Acton Retail Center - South Coast AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.0487	1.0000e-005	1.0000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9400e-003	1.9400e-003	1.0000e-005	0.0000	2.0600e-003
Unmitigated	0.0487	1.0000e-005	1.0000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9400e-003	1.9400e-003	1.0000e-005	0.0000	2.0600e-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	5.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	1.0000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9400e-003	1.9400e-003	1.0000e-005	0.0000	2.0600e-003
Total	0.0487	1.0000e-005	1.0000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9400e-003	1.9400e-003	1.0000e-005	0.0000	2.0600e-003

Acton Retail Center - South Coast AQMD Air District, Annual

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	5.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	1.0000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9400e-003	1.9400e-003	1.0000e-005	0.0000	2.0600e-003
Total	0.0487	1.0000e-005	1.0000e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9400e-003	1.9400e-003	1.0000e-005	0.0000	2.0600e-003

7.0 Water Detail

7.1 Mitigation Measures Water

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

Acton Retail Center - South Coast AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.7470	0.0401	1.0100e-003	10.0510
Unmitigated	9.9686	0.0475	1.1900e-003	11.5122

Acton Retail Center - South Coast AQMD Air District, Annual

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.655315	2.3197	1.000e-004	2.000e-005	2.3280
Fast Food Restaurant with Drive Thru	1.00166 / 0.0639358	4.6998	0.0328	8.1000e-004	5.7611
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.444435 / 0.272396	2.9491	0.0146	3.7000e-004	3.4231
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		9.9686	0.0475	1.2000e-003	11.5122

Acton Retail Center - South Coast AQMD Air District, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.615341	2.1782	9.0000e-005	2.0000e-005	2.1860
Fast Food Restaurant with Drive Thru	0.845402 / 0.0600357	3.9881	0.0277	6.8000e-004	4.8839
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.375103 / 0.25578	2.5807	0.0123	3.1000e-004	2.9810
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		8.7470	0.0401	1.0100e-003	10.0510

8.0 Waste Detail

8.1 Mitigation Measures Waste

Acton Retail Center - South Coast AQMD Air District, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.0047	0.5322	0.0000	22.3087
Unmitigated	9.0047	0.5322	0.0000	22.3087

Acton Retail Center - South Coast AQMD Air District, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.05	0.0102	6.0000e-004	0.0000	0.0252
Fast Food Restaurant with Drive Thru	38.01	7.7157	0.4560	0.0000	19.1153
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.3	1.2788	0.0756	0.0000	3.1683
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		9.0047	0.5322	0.0000	22.3087

Acton Retail Center - South Coast AQMD Air District, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.05	0.0102	6.0000e-004	0.0000	0.0252
Fast Food Restaurant with Drive Thru	38.01	7.7157	0.4560	0.0000	19.1153
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.3	1.2788	0.0756	0.0000	3.1683
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		9.0047	0.5322	0.0000	22.3087

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

Acton Retail Center - South Coast AQMD Air District, Annual

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

Acton Retail Center - South Coast AQMD Air District, Winter

Acton Retail Center
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1.60	1000sqft	0.04	1,600.00	0
Other Asphalt Surfaces	0.55	Acre	0.55	23,958.00	0
Parking Lot	66.00	Space	0.59	26,400.00	0
City Park	0.55	Acre	0.55	23,958.00	0
Fast Food Restaurant with Drive Thru	3.30	1000sqft	0.08	3,300.00	0
Strip Mall	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
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

Acton Retail Center - South Coast AQMD Air District, Winter

Project Characteristics - Construction start date conservatively assumed to be November 2021. Land use setting "urban" bc immediate vicinity of project site contains existing commercial, food service, and multi-family housing.

Land Use - "Retail" = 6,000SF bldg; "Industrial" = 1,600SF storage bldg; "Recreational City Park" assumed for landscaping; "Parking Other Asphalt Surfaces" assumed for remainder of paved/circulation areas

Construction Phase - No "Demolition" phase bc vacant project site. Adjusted "Grading" and "Bldg Construction" phases based on proposed fill import

Off-road Equipment - CalEEMod default assumption

Trips and VMT - CalEEMod default construction trips. "Total Trips Hauling" default update based on fill import

Grading - 590 CY cut and fill to be balanced on site with additional 12,945 CY imported for building pads and parking areas. 590 CY not included here bc net zero change. Total areas graded 1.95 acre (site)

Vehicle Trips - "0 trips" for "City Park" (landscaping) and "Unrefrig. Warehouse" (1,600 SF storage bldg for retail and food service uses). Fast Food adjusted to 471 from TIA (ITE 10th Ed).

Energy Use -

Water And Wastewater - "Warehouse" (storage) water use 0

Solid Waste - "warehouse" (storage) waste gen 0

Construction Off-road Equipment Mitigation - Min site watering assumed during construction to minimize dust

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 2020 CBC & Cal Green application

Water Mitigation -

Acton Retail Center - South Coast AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	200.00	160.00
tblConstructionPhase	NumDays	4.00	21.00
tblGrading	AcresOfGrading	7.88	1.95
tblGrading	AcresOfGrading	1.00	1.95
tblGrading	MaterialImported	0.00	12,945.00
tblSolidWaste	SolidWasteGenerationRate	1.50	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	722.03	471.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	542.72	471.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	496.12	471.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	370,000.00	0.00

2.0 Emissions Summary

Acton Retail Center - South Coast AQMD Air District, 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	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Energy	0.0228	0.2076	0.1744	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.0701	249.0701	4.7700e-003	4.5700e-003	250.5502
Mobile	2.1577	10.3294	18.4473	0.0582	4.5539	0.0497	4.6036	1.2185	0.0463	1.2648		5,936.3370	5,936.3370	0.3627		5,945.4033
Total	2.4477	10.5370	18.6296	0.0594	4.5539	0.0655	4.6194	1.2185	0.0621	1.2806		6,185.4242	6,185.4242	0.3675	4.5700e-003	6,195.9717

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	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Energy	0.0222	0.2015	0.1693	1.2100e-003		0.0153	0.0153		0.0153	0.0153		241.8141	241.8141	4.6300e-003	4.4300e-003	243.2511
Mobile	2.1859	10.5347	19.1453	0.0613	4.8408	0.0521	4.8930	1.2952	0.0486	1.3438		6,253.8084	6,253.8084	0.3756		6,263.1981
Total	2.4752	10.7363	19.3226	0.0625	4.8408	0.0675	4.9083	1.2952	0.0640	1.3592		6,495.6396	6,495.6396	0.3803	4.4300e-003	6,506.4674

Acton Retail Center - South Coast AQMD Air District, 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	-1.13	-1.89	-3.72	-5.19	-6.30	-3.01	-6.25	-6.30	-2.91	-6.14	0.00	-5.02	-5.02	-3.48	3.06	-5.01

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	Site Preparation	11/27/2021	11/30/2021	5	2	
2	Grading	Grading	12/1/2021	12/29/2021	5	21	
3	Building Construction	Building Construction	12/7/2021	7/18/2022	5	160	
4	Paving	Paving	9/13/2022	9/26/2022	5	10	
5	Architectural Coating	Architectural Coating	9/27/2022	10/10/2022	5	10	

Acres of Grading (Site Preparation Phase): 1.95

Acres of Grading (Grading Phase): 1.95

Acres of Paving: 1.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 16,350; Non-Residential Outdoor: 5,450; Striped Parking Area: 3,021 (Architectural Coating – sqft)

OffRoad Equipment

Acton Retail Center - South Coast AQMD Air District, Winter

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

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1,618.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Acton Retail Center - South Coast AQMD Air District, Winter

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2021

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					6.3033	0.0000	6.3033	3.0081	0.0000	3.0081			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	6.3033	0.7654	7.0687	3.0081	0.7041	3.7122		1,666.5174	1,666.5174	0.5390		1,679.9920

Acton Retail Center - South Coast AQMD Air District, Winter

3.2 Site Preparation - 2021

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	0.0369	0.0240	0.2708	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		82.8534	82.8534	2.2200e-003		82.9089
Total	0.0369	0.0240	0.2708	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		82.8534	82.8534	2.2200e-003		82.9089

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					2.8365	0.0000	2.8365	1.3536	0.0000	1.3536			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	2.8365	0.7654	3.6019	1.3536	0.7041	2.0578	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920

Acton Retail Center - South Coast AQMD Air District, Winter

3.2 Site Preparation - 2021

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	0.0369	0.0240	0.2708	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		82.8534	82.8534	2.2200e-003		82.9089
Total	0.0369	0.0240	0.2708	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		82.8534	82.8534	2.2200e-003		82.9089

3.3 Grading - 2021

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					4.6848	0.0000	4.6848	2.5039	0.0000	2.5039			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	4.6848	0.6379	5.3227	2.5039	0.5869	3.0907		1,365.0648	1,365.0648	0.4415		1,376.1020

Acton Retail Center - South Coast AQMD Air District, Winter

3.3 Grading - 2021

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	0.5750	19.7240	4.4294	0.0580	1.3463	0.0613	1.4077	0.3690	0.0587	0.4276		6,273.1811	6,273.1811	0.4444		6,284.2913
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	0.0369	0.0240	0.2708	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		82.8534	82.8534	2.2200e-003		82.9089
Total	0.6119	19.7479	4.7002	0.0588	1.4357	0.0620	1.4977	0.3927	0.0593	0.4520		6,356.0345	6,356.0345	0.4466		6,367.2002

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					2.1081	0.0000	2.1081	1.1267	0.0000	1.1267			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	2.1081	0.6379	2.7461	1.1267	0.5869	1.7136	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

Acton Retail Center - South Coast AQMD Air District, Winter

3.3 Grading - 2021

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	0.5750	19.7240	4.4294	0.0580	1.3463	0.0613	1.4077	0.3690	0.0587	0.4276		6,273.1811	6,273.1811	0.4444		6,284.2913
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	0.0369	0.0240	0.2708	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		82.8534	82.8534	2.2200e-003		82.9089
Total	0.6119	19.7479	4.7002	0.0588	1.4357	0.0620	1.4977	0.3927	0.0593	0.4520		6,356.0345	6,356.0345	0.4466		6,367.2002

3.4 Building Construction - 2021

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Acton Retail Center - South Coast AQMD Air District, Winter

3.4 Building Construction - 2021

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	0.0410	1.3310	0.3546	3.4700e-003	0.0896	2.7700e-003	0.0924	0.0258	2.6500e-003	0.0285		370.3703	370.3703	0.0248		370.9898
Worker	0.1614	0.1049	1.1849	3.6400e-003	0.3912	2.8800e-003	0.3941	0.1038	2.6500e-003	0.1064		362.4838	362.4838	9.7100e-003		362.7266
Total	0.2024	1.4359	1.5395	7.1100e-003	0.4808	5.6500e-003	0.4865	0.1296	5.3000e-003	0.1349		732.8540	732.8540	0.0345		733.7164

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Acton Retail Center - South Coast AQMD Air District, Winter

3.4 Building Construction - 2021

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	0.0410	1.3310	0.3546	3.4700e-003	0.0896	2.7700e-003	0.0924	0.0258	2.6500e-003	0.0285		370.3703	370.3703	0.0248		370.9898
Worker	0.1614	0.1049	1.1849	3.6400e-003	0.3912	2.8800e-003	0.3941	0.1038	2.6500e-003	0.1064		362.4838	362.4838	9.7100e-003		362.7266
Total	0.2024	1.4359	1.5395	7.1100e-003	0.4808	5.6500e-003	0.4865	0.1296	5.3000e-003	0.1349		732.8540	732.8540	0.0345		733.7164

3.4 Building Construction - 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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

Acton Retail Center - South Coast AQMD Air District, Winter

3.4 Building Construction - 2022

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	0.0385	1.2624	0.3353	3.4400e-003	0.0896	2.4100e-003	0.0920	0.0258	2.3000e-003	0.0281		367.0719	367.0719	0.0238		367.6679
Worker	0.1518	0.0947	1.0937	3.5100e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		349.4878	349.4878	8.7700e-003		349.7071
Total	0.1903	1.3571	1.4290	6.9500e-003	0.4808	5.2100e-003	0.4860	0.1296	4.8800e-003	0.1344		716.5597	716.5597	0.0326		717.3750

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

Acton Retail Center - South Coast AQMD Air District, Winter

3.4 Building Construction - 2022

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	0.0385	1.2624	0.3353	3.4400e-003	0.0896	2.4100e-003	0.0920	0.0258	2.3000e-003	0.0281		367.0719	367.0719	0.0238		367.6679
Worker	0.1518	0.0947	1.0937	3.5100e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		349.4878	349.4878	8.7700e-003		349.7071
Total	0.1903	1.3571	1.4290	6.9500e-003	0.4808	5.2100e-003	0.4860	0.1296	4.8800e-003	0.1344		716.5597	716.5597	0.0326		717.3750

3.5 Paving - 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	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9864	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608

Acton Retail Center - South Coast AQMD Air District, Winter

3.5 Paving - 2022

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	0.0564	0.0352	0.4062	1.3000e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		129.8098	129.8098	3.2600e-003		129.8912
Total	0.0564	0.0352	0.4062	1.3000e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		129.8098	129.8098	3.2600e-003		129.8912

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	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9864	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608

Acton Retail Center - South Coast AQMD Air District, Winter

3.5 Paving - 2022

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	0.0564	0.0352	0.4062	1.3000e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		129.8098	129.8098	3.2600e-003		129.8912
Total	0.0564	0.0352	0.4062	1.3000e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		129.8098	129.8098	3.2600e-003		129.8912

3.6 Architectural Coating - 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					
Archit. Coating	11.5045					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	11.7091	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Acton Retail Center - South Coast AQMD Air District, Winter

3.6 Architectural Coating - 2022

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	0.0304	0.0189	0.2187	7.0000e-004	0.0782	5.6000e-004	0.0788	0.0208	5.2000e-004	0.0213		69.8976	69.8976	1.7500e-003		69.9414
Total	0.0304	0.0189	0.2187	7.0000e-004	0.0782	5.6000e-004	0.0788	0.0208	5.2000e-004	0.0213		69.8976	69.8976	1.7500e-003		69.9414

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	11.5045					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	11.7091	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Acton Retail Center - South Coast AQMD Air District, Winter

3.6 Architectural Coating - 2022

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	0.0304	0.0189	0.2187	7.0000e-004	0.0782	5.6000e-004	0.0788	0.0208	5.2000e-004	0.0213		69.8976	69.8976	1.7500e-003		69.9414
Total	0.0304	0.0189	0.2187	7.0000e-004	0.0782	5.6000e-004	0.0788	0.0208	5.2000e-004	0.0213		69.8976	69.8976	1.7500e-003		69.9414

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Acton Retail Center - South Coast AQMD Air District, 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	2.1859	10.5347	19.1453	0.0613	4.8408	0.0521	4.8930	1.2952	0.0486	1.3438		6,253.8084	6,253.8084	0.3756		6,263.1981
Unmitigated	2.1577	10.3294	18.4473	0.0582	4.5539	0.0497	4.6036	1.2185	0.0463	1.2648		5,936.3370	5,936.3370	0.3627		5,945.4033

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	1,554.30	1,554.30	1554.30	1,635,726	1,738,777
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	265.92	252.24	122.58	463,260	492,446
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,820.22	1,806.54	1,676.88	2,098,986	2,231,222

4.3 Trip Type Information

Acton Retail Center - South Coast AQMD Air District, Winter

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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Other 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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
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	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Fast Food Restaurant with Drive Thru	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Other Asphalt Surfaces	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Parking Lot	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Strip Mall	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Unrefrigerated Warehouse-No Rail	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Acton Retail Center - South Coast AQMD Air District, 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					
NaturalGas Mitigated	0.0222	0.2015	0.1693	1.2100e-003		0.0153	0.0153		0.0153	0.0153		241.8141	241.8141	4.6300e-003	4.4300e-003	243.2511
NaturalGas Unmitigated	0.0228	0.2076	0.1744	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.0701	249.0701	4.7700e-003	4.5700e-003	250.5502

Acton Retail Center - South Coast AQMD Air District, 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					
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
Fast Food Restaurant with Drive Thru	2086.32	0.0225	0.2045	0.1718	1.2300e-003		0.0156	0.0156		0.0156	0.0156		245.4498	245.4498	4.7000e-003	4.5000e-003	246.9084
Other 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
Strip Mall	26.9589	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1716	3.1716	6.0000e-005	6.0000e-005	3.1905
Unrefrigerated Warehouse-No Rail	3.8137	4.0000e-005	3.7000e-004	3.1000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.4487	0.4487	1.0000e-005	1.0000e-005	0.4513
Total		0.0228	0.2076	0.1743	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.0701	249.0701	4.7700e-003	4.5700e-003	250.5502

Acton Retail Center - South Coast AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas

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					
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
Fast Food Restaurant with Drive Thru	2.02804	0.0219	0.1988	0.1670	1.1900e-003		0.0151	0.0151		0.0151	0.0151		238.5924	238.5924	4.5700e-003	4.3700e-003	240.0102
Other 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
Strip Mall	0.0241233	2.6000e-004	2.3700e-003	1.9900e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8380	2.8380	5.0000e-005	5.0000e-005	2.8549
Unrefrigerated Warehouse-No Rail	0.00326137	4.0000e-005	3.2000e-004	2.7000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.3837	0.3837	1.0000e-005	1.0000e-005	0.3860
Total		0.0222	0.2015	0.1693	1.2000e-003		0.0153	0.0153		0.0153	0.0153		241.8141	241.8141	4.6300e-003	4.4300e-003	243.2511

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

Acton Retail Center - South Coast AQMD Air District, 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	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Unmitigated	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182

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	0.0315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.4000e-004	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Total	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182

Acton Retail Center - South Coast AQMD Air District, 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	0.0315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.4000e-004	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Total	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Acton Retail Center - South Coast AQMD Air District, Winter

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

Acton Retail Center - South Coast AQMD Air District, Summer

Acton Retail Center
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1.60	1000sqft	0.04	1,600.00	0
Other Asphalt Surfaces	0.55	Acre	0.55	23,958.00	0
Parking Lot	66.00	Space	0.59	26,400.00	0
City Park	0.55	Acre	0.55	23,958.00	0
Fast Food Restaurant with Drive Thru	3.30	1000sqft	0.08	3,300.00	0
Strip Mall	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
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

Acton Retail Center - South Coast AQMD Air District, Summer

Project Characteristics - Construction start date conservatively assumed to be November 2021. Land use setting "urban" bc immediate vicinity of project site contains existing commercial, food service, and multi-family housing.

Land Use - "Retail" = 6,000SF bldg; "Industrial" = 1,600SF storage bldg; "Recreational City Park" assumed for landscaping; "Parking Other Asphalt Surfaces" assumed for remainder of paved/circulation areas

Construction Phase - No "Demolition" phase bc vacant project site. Adjusted "Grading" and "Bldg Construction" phases based on proposed fill import

Off-road Equipment - CalEEMod default assumption

Trips and VMT - CalEEMod default construction trips. "Total Trips Hauling" default update based on fill import

Grading - 590 CY cut and fill to be balanced on site with additional 12,945 CY imported for building pads and parking areas. 590 CY not included here bc net zero change. Total areas graded 1.95 acre (site)

Vehicle Trips - "0 trips" for "City Park" (landscaping) and "Unrefrig. Warehouse" (1,600 SF storage bldg for retail and food service uses). Fast Food adjusted to 471 from TIA (ITE 10th Ed).

Energy Use -

Water And Wastewater - "Warehouse" (storage) water use 0

Solid Waste - "warehouse" (storage) waste gen 0

Construction Off-road Equipment Mitigation - Min site watering assumed during construction to minimize dust

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - 2020 CBC & Cal Green application

Water Mitigation -

Acton Retail Center - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	200.00	160.00
tblConstructionPhase	NumDays	4.00	21.00
tblGrading	AcresOfGrading	7.88	1.95
tblGrading	AcresOfGrading	1.00	1.95
tblGrading	MaterialImported	0.00	12,945.00
tblSolidWaste	SolidWasteGenerationRate	1.50	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	722.03	471.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	542.72	471.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	496.12	471.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	370,000.00	0.00

2.0 Emissions Summary

Acton Retail Center - South Coast AQMD Air District, 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	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Energy	0.0228	0.2076	0.1744	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.0701	249.0701	4.7700e-003	4.5700e-003	250.5502
Mobile	2.2890	10.3418	18.6060	0.0617	4.5539	0.0490	4.6030	1.2185	0.0457	1.2641		6,298.2574	6,298.2574	0.3508		6,307.0272
Total	2.5790	10.5494	18.7883	0.0629	4.5539	0.0648	4.6188	1.2185	0.0615	1.2799		6,547.3446	6,547.3446	0.3556	4.5700e-003	6,557.5956

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	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Energy	0.0222	0.2015	0.1693	1.2100e-003		0.0153	0.0153		0.0153	0.0153		241.8141	241.8141	4.6300e-003	4.4300e-003	243.2511
Mobile	2.3181	10.5361	19.3919	0.0650	4.8408	0.0514	4.8923	1.2952	0.0480	1.3432		6,632.3873	6,632.3873	0.3641		6,641.4907
Total	2.6074	10.7377	19.5692	0.0662	4.8408	0.0668	4.9076	1.2952	0.0633	1.3585		6,874.2184	6,874.2184	0.3688	4.4300e-003	6,884.7600

Acton Retail Center - South Coast AQMD Air District, 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	-1.10	-1.79	-4.16	-5.16	-6.30	-3.02	-6.25	-6.30	-2.93	-6.14	0.00	-4.99	-4.99	-3.71	3.06	-4.99

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	Site Preparation	11/27/2021	11/30/2021	5	2	
2	Grading	Grading	12/1/2021	12/29/2021	5	21	
3	Building Construction	Building Construction	12/7/2021	7/18/2022	5	160	
4	Paving	Paving	9/13/2022	9/26/2022	5	10	
5	Architectural Coating	Architectural Coating	9/27/2022	10/10/2022	5	10	

Acres of Grading (Site Preparation Phase): 1.95

Acres of Grading (Grading Phase): 1.95

Acres of Paving: 1.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 16,350; Non-Residential Outdoor: 5,450; Striped Parking Area: 3,021 (Architectural Coating – sqft)

OffRoad Equipment

Acton Retail Center - South Coast AQMD Air District, Summer

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

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	1,618.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Acton Retail Center - South Coast AQMD Air District, Summer

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2021

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					6.3033	0.0000	6.3033	3.0081	0.0000	3.0081			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	6.3033	0.7654	7.0687	3.0081	0.7041	3.7122		1,666.5174	1,666.5174	0.5390		1,679.9920

Acton Retail Center - South Coast AQMD Air District, Summer

3.2 Site Preparation - 2021

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	0.0338	0.0219	0.3014	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5923	88.5923	2.3800e-003		88.6518
Total	0.0338	0.0219	0.3014	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5923	88.5923	2.3800e-003		88.6518

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					2.8365	0.0000	2.8365	1.3536	0.0000	1.3536			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	2.8365	0.7654	3.6019	1.3536	0.7041	2.0578	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920

Acton Retail Center - South Coast AQMD Air District, Summer

3.2 Site Preparation - 2021

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	0.0338	0.0219	0.3014	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5923	88.5923	2.3800e-003		88.6518
Total	0.0338	0.0219	0.3014	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5923	88.5923	2.3800e-003		88.6518

3.3 Grading - 2021

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					4.6848	0.0000	4.6848	2.5039	0.0000	2.5039			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	4.6848	0.6379	5.3227	2.5039	0.5869	3.0907		1,365.0648	1,365.0648	0.4415		1,376.1020

Acton Retail Center - South Coast AQMD Air District, Summer

3.3 Grading - 2021

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	0.5591	19.4922	4.1261	0.0591	1.3463	0.0604	1.4067	0.3690	0.0578	0.4268		6,391.4048	6,391.4048	0.4264			6,402.0648
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	0.0338	0.0219	0.3014	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5923	88.5923	2.3800e-003			88.6518
Total	0.5928	19.5141	4.4275	0.0599	1.4357	0.0611	1.4968	0.3927	0.0584	0.4511		6,479.9971	6,479.9971	0.4288			6,490.7166

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					2.1081	0.0000	2.1081	1.1267	0.0000	1.1267			0.0000			0.0000	
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415			1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	2.1081	0.6379	2.7461	1.1267	0.5869	1.7136	0.0000	1,365.0648	1,365.0648	0.4415			1,376.1020

Acton Retail Center - South Coast AQMD Air District, Summer

3.3 Grading - 2021

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	0.5591	19.4922	4.1261	0.0591	1.3463	0.0604	1.4067	0.3690	0.0578	0.4268		6,391.4048	6,391.4048	0.4264		6,402.0648
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	0.0338	0.0219	0.3014	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5923	88.5923	2.3800e-003		88.6518
Total	0.5928	19.5141	4.4275	0.0599	1.4357	0.0611	1.4968	0.3927	0.0584	0.4511		6,479.9971	6,479.9971	0.4288		6,490.7166

3.4 Building Construction - 2021

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Acton Retail Center - South Coast AQMD Air District, Summer

3.4 Building Construction - 2021

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	0.0390	1.3353	0.3169	3.5700e-003	0.0896	2.6900e-003	0.0923	0.0258	2.5700e-003	0.0284		381.4139	381.4139	0.0231		381.9907
Worker	0.1477	0.0958	1.3185	3.8900e-003	0.3912	2.8800e-003	0.3941	0.1038	2.6500e-003	0.1064		387.5912	387.5912	0.0104		387.8517
Total	0.1867	1.4311	1.6354	7.4600e-003	0.4808	5.5700e-003	0.4864	0.1296	5.2200e-003	0.1348		769.0050	769.0050	0.0335		769.8424

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Acton Retail Center - South Coast AQMD Air District, Summer

3.4 Building Construction - 2021

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	0.0390	1.3353	0.3169	3.5700e-003	0.0896	2.6900e-003	0.0923	0.0258	2.5700e-003	0.0284		381.4139	381.4139	0.0231		381.9907
Worker	0.1477	0.0958	1.3185	3.8900e-003	0.3912	2.8800e-003	0.3941	0.1038	2.6500e-003	0.1064		387.5912	387.5912	0.0104		387.8517
Total	0.1867	1.4311	1.6354	7.4600e-003	0.4808	5.5700e-003	0.4864	0.1296	5.2200e-003	0.1348		769.0050	769.0050	0.0335		769.8424

3.4 Building Construction - 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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

Acton Retail Center - South Coast AQMD Air District, Summer

3.4 Building Construction - 2022

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	0.0365	1.2675	0.2995	3.5400e-003	0.0896	2.3300e-003	0.0919	0.0258	2.2300e-003	0.0280		378.0828	378.0828	0.0222		378.6381
Worker	0.1386	0.0866	1.2192	3.7500e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		373.7034	373.7034	9.4200e-003		373.9389
Total	0.1751	1.3540	1.5187	7.2900e-003	0.4808	5.1300e-003	0.4859	0.1296	4.8100e-003	0.1344		751.7862	751.7862	0.0316		752.5769

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

Acton Retail Center - South Coast AQMD Air District, Summer

3.4 Building Construction - 2022

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	0.0365	1.2675	0.2995	3.5400e-003	0.0896	2.3300e-003	0.0919	0.0258	2.2300e-003	0.0280		378.0828	378.0828	0.0222		378.6381
Worker	0.1386	0.0866	1.2192	3.7500e-003	0.3912	2.8000e-003	0.3940	0.1038	2.5800e-003	0.1063		373.7034	373.7034	9.4200e-003		373.9389
Total	0.1751	1.3540	1.5187	7.2900e-003	0.4808	5.1300e-003	0.4859	0.1296	4.8100e-003	0.1344		751.7862	751.7862	0.0316		752.5769

3.5 Paving - 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	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9864	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608

Acton Retail Center - South Coast AQMD Air District, Summer

3.5 Paving - 2022

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	0.0515	0.0322	0.4529	1.3900e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		138.8041	138.8041	3.5000e-003		138.8916
Total	0.0515	0.0322	0.4529	1.3900e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		138.8041	138.8041	3.5000e-003		138.8916

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	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.2987					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9864	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608

Acton Retail Center - South Coast AQMD Air District, Summer

3.5 Paving - 2022

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	0.0515	0.0322	0.4529	1.3900e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		138.8041	138.8041	3.5000e-003		138.8916
Total	0.0515	0.0322	0.4529	1.3900e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		138.8041	138.8041	3.5000e-003		138.8916

3.6 Architectural Coating - 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					
Archit. Coating	11.5045					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	11.7091	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Acton Retail Center - South Coast AQMD Air District, Summer

3.6 Architectural Coating - 2022

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	0.0277	0.0173	0.2439	7.5000e-004	0.0782	5.6000e-004	0.0788	0.0208	5.2000e-004	0.0213		74.7407	74.7407	1.8800e-003		74.7878
Total	0.0277	0.0173	0.2439	7.5000e-004	0.0782	5.6000e-004	0.0788	0.0208	5.2000e-004	0.0213		74.7407	74.7407	1.8800e-003		74.7878

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	11.5045					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	11.7091	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Acton Retail Center - South Coast AQMD Air District, Summer

3.6 Architectural Coating - 2022

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	0.0277	0.0173	0.2439	7.5000e-004	0.0782	5.6000e-004	0.0788	0.0208	5.2000e-004	0.0213		74.7407	74.7407	1.8800e-003		74.7878
Total	0.0277	0.0173	0.2439	7.5000e-004	0.0782	5.6000e-004	0.0788	0.0208	5.2000e-004	0.0213		74.7407	74.7407	1.8800e-003		74.7878

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Acton Retail Center - South Coast AQMD Air District, 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	2.3181	10.5361	19.3919	0.0650	4.8408	0.0514	4.8923	1.2952	0.0480	1.3432		6,632.3873	6,632.3873	0.3641		6,641.4907
Unmitigated	2.2890	10.3418	18.6060	0.0617	4.5539	0.0490	4.6030	1.2185	0.0457	1.2641		6,298.2574	6,298.2574	0.3508		6,307.0272

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
City Park	0.00	0.00	0.00		
Fast Food Restaurant with Drive Thru	1,554.30	1,554.30	1,554.30	1,635,726	1,738,777
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	265.92	252.24	122.58	463,260	492,446
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,820.22	1,806.54	1,676.88	2,098,986	2,231,222

4.3 Trip Type Information

Acton Retail Center - South Coast AQMD Air District, Summer

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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Other 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
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
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	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Fast Food Restaurant with Drive Thru	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Other Asphalt Surfaces	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Parking Lot	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Strip Mall	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896
Unrefrigerated Warehouse-No Rail	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Acton Retail Center - South Coast AQMD Air District, 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					
NaturalGas Mitigated	0.0222	0.2015	0.1693	1.2100e-003		0.0153	0.0153		0.0153	0.0153		241.8141	241.8141	4.6300e-003	4.4300e-003	243.2511
NaturalGas Unmitigated	0.0228	0.2076	0.1744	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.0701	249.0701	4.7700e-003	4.5700e-003	250.5502

Acton Retail Center - South Coast AQMD Air District, Summer

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
Fast Food Restaurant with Drive Thru	2086.32	0.0225	0.2045	0.1718	1.2300e-003		0.0156	0.0156		0.0156	0.0156		245.4498	245.4498	4.7000e-003	4.5000e-003	246.9084
Other 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
Strip Mall	26.9589	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1716	3.1716	6.0000e-005	6.0000e-005	3.1905
Unrefrigerated Warehouse-No Rail	3.8137	4.0000e-005	3.7000e-004	3.1000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.4487	0.4487	1.0000e-005	1.0000e-005	0.4513
Total		0.0228	0.2076	0.1743	1.2500e-003		0.0158	0.0158		0.0158	0.0158		249.0701	249.0701	4.7700e-003	4.5700e-003	250.5502

Acton Retail Center - South Coast AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas

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					
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
Fast Food Restaurant with Drive Thru	2.02804	0.0219	0.1988	0.1670	1.1900e-003		0.0151	0.0151		0.0151	0.0151		238.5924	238.5924	4.5700e-003	4.3700e-003	240.0102
Other 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
Strip Mall	0.0241233	2.6000e-004	2.3700e-003	1.9900e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8380	2.8380	5.0000e-005	5.0000e-005	2.8549
Unrefrigerated Warehouse-No Rail	0.00326137	4.0000e-005	3.2000e-004	2.7000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.3837	0.3837	1.0000e-005	1.0000e-005	0.3860
Total		0.0222	0.2015	0.1693	1.2000e-003		0.0153	0.0153		0.0153	0.0153		241.8141	241.8141	4.6300e-003	4.4300e-003	243.2511

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

Acton Retail Center - South Coast AQMD Air District, 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	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Unmitigated	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182

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	0.0315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.4000e-004	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Total	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182

Acton Retail Center - South Coast AQMD Air District, 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	0.0315					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2349					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.4000e-004	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182
Total	0.2672	7.0000e-005	7.9800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0171	0.0171	5.0000e-005		0.0182

7.0 Water Detail

7.1 Mitigation Measures Water

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Acton Retail Center - South Coast AQMD Air District, Summer

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

Acton Retail Center

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529
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Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Rubber Tired Dozer	1	8	247	0.40	Site Prep	83.56
Graders	1	8	187	0.41	Site Prep	64.84
Tractors/Loaders/Backhoes	1	8	97	0.37	Site Prep	33.74
Graders	1	8	187	0.41	Grading	680.85
Rubber Tired Dozer	1	8	247	0.40	Grading	877.37
Tractors/Loaders/Backhoes	1	8	97	0.37	Grading	354.32
Cranes	1	6	231	0.29	Building	3,399.38
Forklifts	1	6	89	0.20	Building	1,004.16
Generator Sets	1	6	84	0.74	Building	3,506.67
Tractors/Loaders/Backhoes	1	6	97	0.37	Building	2,024.69
Welders	3	6	46	0.45	Building	3,503.29
Air Compressors	1	6	78	0.48	Arch Coating	132.01
Pavers	1	8	130	0.42	Paving	230.89
Cement and Mortar Mixers	1	6	9	0.56	Paving	17.77
Tractors/Loaders/Backhoes	1	8	97	0.37	Paving	168.72
Paving Equipment	1	8	132	0.36	Paving	200.95
Rollers	1	7	80	0.38	Paving	125.05
Total Fuel Used						16,408.28 (Gallons)

Construction Phase	Days of Operation
Site Preparation Phase	2
Grading Phase	21
Building Construction Phase	160
Paving Phase	10
Architectural Coating Phase	10
Total Days	203

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Prep Phase	24.0	8	14.7	9.80
Grading Phase	24.0	8	14.7	102.90
Building Phase	24.0	35	14.7	3430.00
Paving Phase	24.0	13	14.7	79.63

Architectural Coating Phase	24.0	7	14.7	42.88
			Fuel	3,665.20

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Site Prep Phase	7.4	0	20.0	0.00
Grading Phase	7.4	1618	20.0	4372.97
Building Phase	7.4	0	20.0	0.00
Paving Phase	7.4	0	20.0	0.00
Architectural Coating Phase	7.4	0	20.0	0.00
			Fuel	4,372.97
VENDOR TRIPS				
Site Prep Phase	7.4	0	6.9	0.00
Grading Phase	7.4	0	6.9	0.00
Building Phase	7.4	14	6.9	2088.65
Paving Phase	7.4	0	6.9	0.00
Architectural Coating Phase	7.4	0	6.9	0.00
			Fuel	2,088.65

Total Gasoline Consumption (gallons)	3,665.20
Total Diesel Consumption (gallons)	22,869.90

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b*. July 2018. Available at: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2018. *National Transportation Statistics 2018*. Available at: <https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/national-transportation-statistics/223001/ntsentire2018q4.pdf>.

Acton Retail Center

Populate one of the following tables (Leave the other blank):

Annual VMT	OR	Daily Vehicle Trips
Annual VMT: 2,231,222		Daily Vehicle Trips: Average Trip Distance:

Fleet Class	Fleet Mix	Fuel Economy (MPG)	
Light Duty Auto (LDA)	0.549559	Passenger Vehicles	24.0
Light Duty Truck 1 (LDT1)	0.042893	Light-Med Duty Trucks	17.4
Light Duty Truck 2 (LDT2)	0.201564	Heavy Trucks/Other	7.4
Medium Duty Vehicle (MDV)	0.118533	Motorcycles	43.9
Light Heavy Duty 1 (LHD1)	0.015569		
Light Heavy Duty 2 (LHD2)	0.005846		
Medium Heavy Duty (MHD)	0.021394		
Heavy Heavy Duty (HHD)	0.034255		
Other Bus (OBUS)	0.002099		
Urban Bus (UBUS)	0.001828		
School Bus (SBUS)	0.004855		
Motorhome (MH)	0.000709		
Motorcycle (MCY)	0.000896		

Fleet Mix

Vehicle Type	Percent	Fuel Type	Annual VMT: VMT	Vehicle Trips: VMT	Fuel Consumption (Gallons)
Passenger Vehicles	54.96%	<i>Gasoline</i>	1226188	0.00	51091.17
Light-Medium Duty Trucks	36.30%	<i>Gasoline</i>	809911	0.00	46546.62
Heavy Trucks/Other	8.66%	<i>Diesel</i>	193123	0.00	26097.76
Motorcycle	0.09%	<i>Gasoline</i>	1999	0.00	45.54
			2231222		123781.10
Total Gasoline Consumption (gallons)					97683.34
Total Diesel Consumption (gallons)					26097.76