

**Appendix I:
Energy Supporting Information**

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Moss Street - Energy Calculations

Summary of Energy Use During Construction

Construction vehicle fuel	39096 gallons (gasoline, diesel)
Construction office electricity	12195.42 kilowatt hours

Summary of Energy Use During Operations

(Annually)

Proposed Operation Vehicle Fuel	123,933 gallons (gasoline, diesel)
Existing Operation Vehicle Fuel	9,928 gallons (gasoline, diesel)
Net Operation Vehicle Fuel	114,005 gallons (gasoline, diesel)
Operation Natural Gas	1047450 kilo-British Thermal Units
Operation Electricity	610547 kilowatt hours

Construction Vehicle Fuel Calculations

California Air Resource Board. 2019. EMFAC2014 Web Database. March. Website: <https://www.arb.ca.gov/emfac/2014/>. Accessed April 1, 2019

VMT = Vehicle Miles Traveled
FE = Fuel Economy

EMFAC2014 Web Database
(v1.0.7)

Data Type: Emissions Emission Rates

Region: County
San Diego

Calendar Year: 2018
2019
2020
2021

Season: Annual

Vehicle Category: EMFAC2007 Categories
Pick
LDA
LDT1
LDT2
MDV

Model Year: Aggregated

Speed: Aggregated

Fuel: All

EMFAC2014 (v1.0.7) Emissions Inventory

Region Type: County

Region: San Diego

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

<i>Given</i>						<i>Calculations</i>				
Region	CalYr	VehClass	MdYr	Speed	Fuel	Population	VMT (mi/day)	Fuel_Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
San Diego	2020	HHDT	Aggregatec	Aggregatec	GAS	136.7048	18029.78	3.830508	4.706891	84864.2207
San Diego	2020	HHDT	Aggregatec	Aggregatec	DSL	14003.04	1876940	330.3942	5.680911	10662726.2
San Diego	2020	LDA	Aggregatec	Aggregatec	GAS	1305532	46477370	1647.945	28.20323	1310811904
San Diego	2020	LDA	Aggregatec	Aggregatec	DSL	14881.07	538420.3	15.11675	35.61746	19177165.3
San Diego	2020	LDT1	Aggregatec	Aggregatec	GAS	113584.7	3527547	152.3571	23.15315	81673819.7
San Diego	2020	LDT1	Aggregatec	Aggregatec	DSL	175.2779	3620.173	0.140334	25.79686	93389.0885
San Diego	2020	LDT2	Aggregatec	Aggregatec	GAS	423070.2	15153593	729.6142	20.76932	314729882
San Diego	2020	LDT2	Aggregatec	Aggregatec	DSL	746.4209	29442.88	1.071966	27.46624	808685.319
San Diego	2020	LHDT1	Aggregatec	Aggregatec	GAS	22545.62	646438.9	67.18366	9.621966	6220013.19
San Diego	2020	LHDT1	Aggregatec	Aggregatec	DSL	23462.95	777102.2	44.40855	17.49893	13598459.1
San Diego	2020	LHDT2	Aggregatec	Aggregatec	GAS	4187.84	147807.9	16.82815	8.783373	1298252.13
San Diego	2020	LHDT2	Aggregatec	Aggregatec	DSL	8136.263	309669.2	19.55371	15.83686	4904186.66
San Diego	2020	MHDT	Aggregatec	Aggregatec	GAS	2771.813	144534.9	22.5164	6.419095	927783.417
San Diego	2020	MHDT	Aggregatec	Aggregatec	DSL	21507	1134130	137.1166	8.271277	9380702.32

Worker Trips
 Sum of VMT*FE (Column L) **1727294846**
 Total VMT (Column H) **65729993.3**
 Weighted Average FE **26.2786402 miles/gallon**

Vendor
 Sum of VMT*FE (Column L) **47076987.3**
 Total VMT (Column H) **5054652.41**
 Weighted Average FE **9.31359538 miles/gallon**

Haul
Sum of VMT*FE (Column L) 10747590.4
Total VMT (Column H) 1894969.43
Weighted Average FE 5.67164318 miles/gallon

Moss Street Project Construction Assumptions

Appendix A (AQ/GHG): CalEEMod Moss Street - San Diego County, annual

Moss Street - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2019	10/11/2019	5	30	
2	Grading	Grading	10/12/2019	11/22/2019	5	30	
3	Building Construction	Building Construction	11/23/2019	10/9/2020	5	230	
4	Paving	Paving	10/10/2020	11/6/2020	5	20	
5	Architectural Coating	Architectural Coating	11/7/2020	12/4/2020	5	20	

Construction Phase	
Phase Name	Num Days
Demolition	30
Grading	30
Building Construction	230
Paving	20
Architectural Coating	20

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
Demolition	6	15.00	0.00	189.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	3,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	188.00	49.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	38.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Trips and VMT	Trips per Day			Total Trips			Trips per Phase	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip		Worker Trip	Vendor Trip	Hauling Trip	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Phase Name	Number	Number	Number	Length	Length	Length	Num Days	Number	Number	Number	Trips	Trips	Trips	Trips	Trips	Trips
Demolition	15	0	189	10.8	7.3	20	30	450	0	189	4,860	0	3,780	184.94	0.00	666.47
Grading	15	0	3,125	10.8	7.3	20	30	450	0	3,125	4,860	0	62,500	184.94	0.00	11,019.73
Building Construction	188	49	0	10.8	7.3	20	230	43,240	11,270	0	466,992	82,271	0	17,770.78	8,833.43	0.00
Paving	15	0	0	10.8	7.3	20	20	300	0	0	3,240	0	0	123.29	0.00	0.00
Architectural Coating	38	0	0	10.8	7.3	20	20	760	0	0	8,208	0	0	312.34	0.00	0.00

Total Construction VMT
636,711

Total Fuel Consumption (gallons)
39,096

Construction Office Electricity Calculation

Appendix A (AQ/GHG): CalEEMod Construction Office Electricity

kWh/yr = kilowatt hours per year

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	Mt/yr			
General Office Building	9676.8	2.0015	1.3000e-004	3.0000e-005	2.0126
Total		2.0015	1.3000e-004	3.0000e-005	2.0126

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	Mt/yr			
General Office Building	9676.8	2.0015	1.3000e-004	3.0000e-005	2.0126
Total		2.0015	1.3000e-004	3.0000e-005	2.0126

Moss Street - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2019	10/11/2019	5	30	
2	Grading	Grading	10/12/2019	11/22/2019	5	30	
3	Building Construction	Building Construction	11/23/2019	10/9/2020	5	230	
4	Paving	Paving	10/10/2020	11/6/2020	5	20	
5	Architectural Coating	Architectural Coating	11/7/2020	12/4/2020	5	20	

Start of Construction 9/1/2019
 End of Construction 12/4/2020
 Number of Workdays 330 (non-weekends)
 Days 460
 Days in a yr 365
 Years of Co 1.26027397

Time (years) Electricity Use
 1 year 9,676.80 kWh/yr
 1.26027397 **12,195.42 kWh/yr**

Proposed Operation Fuel Calculation

VMT = Vehicle Miles Traveled
 FE = Fuel Economy

Moss Street - Unmitigated Construction and 2021 Operations - San Diego County, Annual

Date: 10/23/2019 11:43 AM

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Condo/Townhouse High Rise	1,072.00	1,072.00	1072.00	3,059,605	3,059,605
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,072.00	1,072.00	1,072.00	3,059,605	3,059,605

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse High Rise	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.00119
Other Asphalt Surfaces	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.00119
Other Non-Asphalt Surfaces	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.00119
Parking Lot	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.00119

California Air Resource Board. 2019. EMFAC2014 Web Database. March. Website: <https://www.arb.ca.gov/emfac/2014/>. Accessed April 1, 2019

EMFAC2014 Web Database

(v1.0.7)

Data Type: Emissions Emission Rates

Region: County
 San Diego

Calendar Year: 2021
 2022
 2023
 2024

Season: Annual

Vehicle Category: EMFAC2007 Categories
 All

Model Year: Aggregated

Speed: Aggregated

Fuel: All

EMFAC2014 (v1.0.7) Emissions Inventory

Region Type: County

Region: San Diego

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Given

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption
San Diego	2021	HHDT	Aggregatec	Aggregatec	GAS	140.1544	18678.57	3.922323
San Diego	2021	HHDT	Aggregatec	Aggregatec	DSL	14374.92	1938189	336.7169
San Diego	2021	LDA	Aggregatec	Aggregatec	GAS	1333428	46943611	1617.038
San Diego	2021	LDA	Aggregatec	Aggregatec	DSL	15679.98	558069.4	15.20573
San Diego	2021	LDT1	Aggregatec	Aggregatec	GAS	112265.2	3476183	146.0565
San Diego	2021	LDT1	Aggregatec	Aggregatec	DSL	166.1925	3419.475	0.12985
San Diego	2021	LDT2	Aggregatec	Aggregatec	GAS	425304.9	15157119	705.8164
San Diego	2021	LDT2	Aggregatec	Aggregatec	DSL	795.084	30570.65	1.083513
San Diego	2021	LHDT1	Aggregatec	Aggregatec	GAS	21323.32	602303.4	62.36186
San Diego	2021	LHDT1	Aggregatec	Aggregatec	DSL	23399.1	764994.4	43.35496
San Diego	2021	LHDT2	Aggregatec	Aggregatec	GAS	4143.828	145577.2	16.46536
San Diego	2021	LHDT2	Aggregatec	Aggregatec	DSL	8321.732	313081.7	19.56356
San Diego	2021	MCY	Aggregatec	Aggregatec	GAS	67782.57	506605.8	14.36399
San Diego	2021	MDV	Aggregatec	Aggregatec	GAS	270691	8833465	550.8057
San Diego	2021	MDV	Aggregatec	Aggregatec	DSL	4480.988	177976.5	8.074359
San Diego	2021	MH	Aggregatec	Aggregatec	GAS	10409.83	78492.72	11.94784
San Diego	2021	MH	Aggregatec	Aggregatec	DSL	2591.591	20730.59	2.173741
San Diego	2021	MHDT	Aggregatec	Aggregatec	GAS	2823.87	148008.7	22.89794
San Diego	2021	MHDT	Aggregatec	Aggregatec	DSL	21799.7	1178045	141.8776
San Diego	2021	OBUS	Aggregatec	Aggregatec	GAS	1548.128	87395.17	13.25878
San Diego	2021	OBUS	Aggregatec	Aggregatec	DSL	901.9318	71636.56	10.60084
San Diego	2021	SBUS	Aggregatec	Aggregatec	GAS	352.7134	16816.62	1.43672
San Diego	2021	SBUS	Aggregatec	Aggregatec	DSL	1191.849	45420.34	6.272022
San Diego	2021	UBUS	Aggregatec	Aggregatec	GAS	419.2186	59315.29	11.78583
San Diego	2021	UBUS	Aggregatec	Aggregatec	DSL	740.2692	104740.8	21.91647

Calculations

Sum of VMT*FE (Column L) 2.01E+09
 Sum of VMT (Column H) 81280446
 Weighted Average FE 24.68755 miles/gallon

Passenger vehicle VMT (CalEEMod output files) 3059605
 Fuel consumption 123933.1 gallons

Existing Operation Fuel Calculation

VMT = Vehicle Miles Traveled
 FE = Fuel Economy

Moss Street Existing Emissions (2021) - San Diego County, Annual

Date: 10/22/2019 12:50 PM

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	83.95	83.95	83.95	245,096	245,096
Total	83.95	83.95	83.95	245,096	245,096

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.00119

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EMFAC2014 Web Database

(v1.0.7)

Data Type: Emissions Emission Rates

Region: County
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Calendar Year: 2021
 2022
 2023
 2024

Season: Annual

Vehicle Category: EMFAC2007 Categories
 All

Model Year: Aggregated

Speed: Aggregated

Fuel: All

EMFAC2014 (v1.0.7) Emissions Inventory

Region Type: County

Region: San Diego

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Given

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption
San Diego	2021	HHDT	Aggregatec	Aggregatec	GAS	140.1544	18678.57	3.922323
San Diego	2021	HHDT	Aggregatec	Aggregatec	DSL	14374.92	1938189	336.7169
San Diego	2021	LDA	Aggregatec	Aggregatec	GAS	1333428	46943611	1617.038
San Diego	2021	LDA	Aggregatec	Aggregatec	DSL	15679.98	558069.4	15.20573
San Diego	2021	LDT1	Aggregatec	Aggregatec	GAS	112265.2	3476183	146.0565
San Diego	2021	LDT1	Aggregatec	Aggregatec	DSL	166.1925	3419.475	0.12985
San Diego	2021	LDT2	Aggregatec	Aggregatec	GAS	425304.9	15157119	705.8164
San Diego	2021	LDT2	Aggregatec	Aggregatec	DSL	795.084	30570.65	1.083513
San Diego	2021	LHDT1	Aggregatec	Aggregatec	GAS	21323.32	602303.4	62.36186
San Diego	2021	LHDT1	Aggregatec	Aggregatec	DSL	23399.1	764994.4	43.35496
San Diego	2021	LHDT2	Aggregatec	Aggregatec	GAS	4143.828	145577.2	16.46536
San Diego	2021	LHDT2	Aggregatec	Aggregatec	DSL	8321.732	313081.7	19.56356
San Diego	2021	MCY	Aggregatec	Aggregatec	GAS	67782.57	506605.8	14.36399
San Diego	2021	MDV	Aggregatec	Aggregatec	GAS	270691	8833465	550.8057
San Diego	2021	MDV	Aggregatec	Aggregatec	DSL	4480.988	177976.5	8.074359
San Diego	2021	MH	Aggregatec	Aggregatec	GAS	10409.83	78492.72	11.94784
San Diego	2021	MH	Aggregatec	Aggregatec	DSL	2591.591	20730.59	2.173741
San Diego	2021	MHDT	Aggregatec	Aggregatec	GAS	2823.87	148008.7	22.89794
San Diego	2021	MHDT	Aggregatec	Aggregatec	DSL	21799.7	1178045	141.8776
San Diego	2021	OBUS	Aggregatec	Aggregatec	GAS	1548.128	87395.17	13.25878
San Diego	2021	OBUS	Aggregatec	Aggregatec	DSL	901.9318	71636.56	10.60084
San Diego	2021	SBUS	Aggregatec	Aggregatec	GAS	352.7134	16816.62	1.43672
San Diego	2021	SBUS	Aggregatec	Aggregatec	DSL	1191.849	45420.34	6.272022
San Diego	2021	UBUS	Aggregatec	Aggregatec	GAS	419.2186	59315.29	11.78583
San Diego	2021	UBUS	Aggregatec	Aggregatec	DSL	740.2692	104740.8	21.91647

Calculations

Sum of VMT*FE (Column L)	2.01E+09
Sum of VMT (Column H)	81280446
Weighted Average FE	24.68755 miles/gallon

Passenger vehicle VMT (CalEEMod output files) 245096
 Fuel consumption 9927.921 gallons

Operation Natural Gas Use

Appendix A (AQ/GHG): CalEEMod Moss Street - San Diego County, annual

kBTU/yr = kilo-British Thermal Units/year
 CF = cubic feet

5.2 Energy by Land Use - Natural Gas
Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse High Rise	1.04745e+006	5.6500e-003	0.0483	0.0205	3.1000e-004		3.9000e-003	3.9000e-003		3.9000e-003	3.9000e-003	0.0000	55.8961	55.8961	1.0700e-003	1.0200e-003	56.2282
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
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		5.6500e-003	0.0483	0.0205	3.1000e-004		3.9000e-003	3.9000e-003		3.9000e-003	3.9000e-003	0.0000	55.8961	55.8961	1.0700e-003	1.0200e-003	56.2282

Conversion from kBTU/yr to CF/yr

Abraxas. 2019. Energy Conversion Calculator.

Website: <https://www.abraxasenergy.com/energy-resources/toolbox/conversion-calculators/energy/>. Accessed April 1, 2019.

Energy Conversion Calculator

Convert From:

1047450

kBtu

Equivalency:

1047450 kBTU/yr

1026912 CF/yr natural gas

how many decimal places?

Convert

To:

1047450000	Btu
1047450	kBtu
1047.45	Million BTU
110512259699	Joules
1105122597	kiloJoules
1105122.597	MegaJoules
306977.219	kWh
306.977	MWh
10474.5	therm
1047.45	decatherm
10269.116	natural gas CCF
1026911.765	natural gas CF

Operation Electricity Use

Appendix A (AQ/GHG): CalEEMod Moss Street - San Diego County, annual

kWh/yr = kilowatt hours per year

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	601307	124.3733	7.9100e-003	1.6400e-003	125.0587
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	9240	1.9112	1.2000e-004	3.0000e-005	1.9217
Total		126.2844	8.0300e-003	1.6700e-003	126.9804

Condo/Townhouse High Rise Electricity 601307 kWh/yr
Parking Lot Electricity (Lighting) 9240 kWh/yr
Total Operation Electricity **610547 kWh/yr**

Typical Construction Trailer - San Diego County, Annual

**Typical Construction Trailer
San Diego County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.72	1000sqft	0.02	720.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	456	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Typical construction trailer in San Diego County for estimate of energy usage
CO2 intensity adjusted based on SD Gas and Electric Renewable Energy Portfolio

Land Use - 12'x60' single-wide unit (720 sq ft)

Construction Phase - Typical construction trailer for energy use estimates - estimates would be included in the operational component of the results

Off-road Equipment - Zeroed out construction equipment

Vehicle Trips - Zeroed out off-site trips

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	456
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.6500e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	8.0000e-005	7.1000e-004	6.0000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.7773	2.7773	1.4000e-004	4.0000e-005	2.7929
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.5249	0.5655	4.2000e-003	1.1000e-004	0.7020
Total	3.7300e-003	7.1000e-004	6.1000e-004	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005	0.1766	3.3022	3.4788	0.0124	1.5000e-004	3.8318

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.0015	2.0015	1.3000e-004	3.0000e-005	2.0126
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.0015	2.0015	1.3000e-004	3.0000e-005	2.0126
NaturalGas Mitigated	8.0000e-005	7.1000e-004	6.0000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7757	0.7757	1.0000e-005	1.0000e-005	0.7804
NaturalGas Unmitigated	8.0000e-005	7.1000e-004	6.0000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7757	0.7757	1.0000e-005	1.0000e-005	0.7804

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					
General Office Building	14536.8	8.0000e-005	7.1000e-004	6.0000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7757	0.7757	1.0000e-005	1.0000e-005	0.7804
Total		8.0000e-005	7.1000e-004	6.0000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7757	0.7757	1.0000e-005	1.0000e-005	0.7804

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	14536.8	8.0000e-005	7.1000e-004	6.0000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7757	0.7757	1.0000e-005	1.0000e-005	0.7804
Total		8.0000e-005	7.1000e-004	6.0000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7757	0.7757	1.0000e-005	1.0000e-005	0.7804

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	9676.8	2.0015	1.3000e-004	3.0000e-005	2.0126
Total		2.0015	1.3000e-004	3.0000e-005	2.0126

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	9676.8	2.0015	1.3000e-004	3.0000e-005	2.0126
Total		2.0015	1.3000e-004	3.0000e-005	2.0126

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