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M E M O

Date: March 8, 2018

To: **Kristy Weis**, David J. Powers & Associates, Inc.
Amy Wang, David J. Powers & Associates, Inc.

From: **James A. Reyff**
Illingworth & Rodkin, Inc.
1 Willowbrook Court, Suite 120
Petaluma, CA 94954

RE: **Gateway Crossings, Coleman Brokaw** I&R Job#16-075

SUBJECT: **Updated AQ Option 1 Emissions Modeling**

Illingworth & Rodkin, Inc. (I&R) completed an evaluation of the air quality impacts and greenhouse gas emissions for the Gateway Crossings project in Santa Clara, California (air quality report)[1]. This assessment evaluated the air quality impacts in terms of emissions from construction and operation of the project, including the greenhouse gas (GHG) emissions, and addressed health risks associated with the project. That analysis evaluated impacts from "Option 2" of the proposed project. This is the larger option, since it included 200 more dwelling units than Option 1. Since Option 1 is a smaller sized project than Option 2, the emissions would be less. So average daily emissions for construction and operation would be less than those reported in the air quality report. Likewise, community risk impacts are expected to be less.

The air quality report identified a significant impact associated with operation of the proposed project for Option 2, because reactive organic gas (ROG) emissions would increase with the project by a rate exceeding the Bay Area Air Quality Management District (BAAQMD) significance threshold of 54 pounds per day. Mitigation was identified for this impact. Since Option 1 would be smaller than Option 2, emissions of ROG would also be less, such that they would be less than significant. The emissions from Option 1 are summarized below:

Existing ROG emissions:	1.56 tons/year	8.55 lbs/day
Option 1 ROG emissions:	10.74 tons/year	58.85 lbs/day
Net	9.18 tons/year	50.30 lbs/day

Attachments: CalEEMod Model Output for:
Project Option 1 Operational

[1] I&R. 2017. Gateway Crossings project in Santa Clara, California Draft Air Quality & Greenhouse Gas Emissions Assessment. September 19.

Coleman Browkaw Gateway Crossings Full Build Out Option 1

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	3,114.00	Space	0.00	1,245,600.00	0
Parking Lot	21.00	Space	0.00	8,400.00	0
Hotel	250.00	Room	0.00	363,000.00	0
Apartments Mid Rise	1,400.00	Dwelling Unit	24.00	1,400,000.00	3822
Strip Mall	15.00	1000sqft	0.00	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2026
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	380	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Using future SVP Rate

Land Use - Summed up number of parking spaces

Construction Phase - Operation Run Only

Off-road Equipment -

Off-road Equipment -

Grading -

Vehicle Trips - Apts = 6.00/5.75/5.27, Hotel = 7.93/7.95/5.77, Retail = 32.07/30.42/14.71

Woodstoves - No wood -> 512 nat gas

Energy Use - Titlw 24, 2013 values

Water And Wastewater - Wastewater treatment - no spetic or lagoons

Energy Mitigation - energy-efficient appliances

Stationary Sources - Emergency Generators and Fire Pumps - operared for emergency purposes only

Water Mitigation - water-efficient fixtures

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Residential_Exterior	945000	1080000
tblAreaCoating	Area_Residential_Interior	2835000	3240000
tblEnergyUse	LightingElect	1.75	2.63
tblEnergyUse	LightingElect	2.35	2.41
tblEnergyUse	LightingElect	0.35	0.88
tblEnergyUse	LightingElect	5.25	5.38
tblEnergyUse	T24E	332.81	392.47
tblEnergyUse	T24E	2.05	2.15
tblEnergyUse	T24E	2.76	2.89
tblEnergyUse	T24NG	5,484.45	7,914.07
tblEnergyUse	T24NG	39.56	39.76

tblEnergyUse	T24NG	2.37	2.38
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	210.00	512.00
tblFireplaces	NumberNoFireplace	56.00	64.00
tblFireplaces	NumberWood	238.00	0.00
tblLandUse	LotAcreage	28.03	0.00
tblLandUse	LotAcreage	0.19	0.00
tblLandUse	LotAcreage	8.33	0.00
tblLandUse	LotAcreage	36.84	24.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	Population	4,004.00	3,822.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	380
tblSolidWaste	SolidWasteGenerationRate	644.00	736.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	135.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	6.39	5.75
tblVehicleTrips	ST_TR	8.19	7.95
tblVehicleTrips	ST_TR	42.04	30.42
tblVehicleTrips	SU_TR	5.86	5.27
tblVehicleTrips	SU_TR	5.95	5.77
tblVehicleTrips	SU_TR	20.43	14.71
tblVehicleTrips	WD_TR	6.65	6.00
tblVehicleTrips	WD_TR	8.17	7.93
tblVehicleTrips	WD_TR	44.32	32.07
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	91,215,635.87	104,246,440.99
tblWater	OutdoorWaterUseRate	57,505,509.57	65,720,582.37
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	28.00	32.00
tblWoodstoves	NumberNoncatalytic	28.00	32.00
tblWoodstoves	WoodstoveWoodMass	582.40	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	8.6958	0.1751	10.4400	9.0000e-004		0.0622	0.0622		0.0622	0.0622	0.0000	80.9588	80.9588	0.0176	1.1700e-003	81.7491
Energy	0.1709	1.5078	0.9706	9.3200e-003		0.1181	0.1181		0.1181	0.1181	0.0000	4,624.3273	4,624.3273	0.2563	0.0773	4,653.7746
Mobile	1.8656	7.4297	21.1732	0.0824	8.6434	0.0647	8.7080	2.3133	0.0601	2.3734	0.0000	7,564.5202	7,564.5202	0.2301	0.0000	7,570.2738
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.3839	0.0000	180.3839	10.6604	0.0000	446.8934
Water						0.0000	0.0000		0.0000	0.0000	39.5194	144.6619	184.1813	0.1471	0.0882	214.1491
Total	**10.7378**	**9.1281**	**32.6039**	**0.0926**	**8.6434**	**0.2457**	**8.8891**	**2.3133**	**0.2412**	**2.5545**	**219.9032**	**12,417.0387**	**12,636.9419**	**11.3119**	**0.1667**	**12,969.4194**

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	8.6958	0.1751	10.4400	9.0000e-004		0.0622	0.0622		0.0622	0.0622	0.0000	80.9588	80.9588	0.0176	1.1700e-003	81.7491
Energy	0.1709	1.5078	0.9706	9.3200e-003		0.1181	0.1181		0.1181	0.1181	0.0000	4,598.7102	4,598.7102	0.2543	0.0769	4,627.9881
Mobile	1.8656	7.4297	21.1732	0.0824	8.6434	0.0647	8.7080	2.3133	0.0601	2.3734	0.0000	7,564.5202	7,564.5202	0.2301	0.0000	7,570.2738
Stationary	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Waste						0.0000	0.0000		0.0000	0.0000	180.3839	0.0000	180.3839	10.6604	0.0000	446.8934
Water						0.0000	0.0000		0.0000	0.0000	31.6155	121.3568	152.9723	0.1181	0.0707	176.9837
Total	**10.7378**	**9.1281**	**32.6039**	**0.0926**	**8.6434**	**0.2457**	**8.8891**	**2.3133**	**0.2412**	**2.5545**	**211.9994**	**12,368.1164**	**12,580.1157**	**11.2809**	**0.1488**	**12,906.4675**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.59**	**0.39**	**0.45**	**0.27**	**10.78**	**0.49**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.8656	7.4297	21.1732	0.0824	8.6434	0.0647	8.7080	2.3133	0.0601	2.3734	0.0000	7,564.5202	7,564.5202	0.2301	0.0000	7,570.2738
Unmitigated	1.8656	7.4297	21.1732	0.0824	8.6434	0.0647	8.7080	2.3133	0.0601	2.3734	0.0000	7,564.5202	7,564.5202	0.2301	0.0000	7,570.2738

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	8,400.00	8,050.00	7378.00	18,948,018	18,948,018
Enclosed Parking Structure	0.00	0.00	0.00		
Hotel	1,982.50	1,987.50	1442.50	3,621,404	3,621,404
Parking Lot	0.00	0.00	0.00		
Strip Mall	481.05	456.30	220.65	678,099	678,099
Total	10,863.55	10,493.80	9,041.15	23,247,521	23,247,521

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Enclosed Parking Structure	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Hotel	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Parking Lot	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681
Strip Mall	0.618126	0.034987	0.181060	0.102744	0.012808	0.005030	0.012887	0.022139	0.002195	0.001502	0.005204	0.000638	0.000681

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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	2,907.6363	2,907.6363	0.2219	0.0459	2,926.8650
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,933.2534	2,933.2534	0.2239	0.0463	2,952.6515
NaturalGas Mitigated	0.1709	1.5078	0.9706	9.3200e-003		0.1181	0.1181		0.1181	0.1181	0.0000	1,691.0739	1,691.0739	0.0324	0.0310	1,701.1231
NaturalGas Unmitigated	0.1709	1.5078	0.9706	9.3200e-003		0.1181	0.1181		0.1181	0.1181	0.0000	1,691.0739	1,691.0739	0.0324	0.0310	1,701.1231

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					

Apartments Mid Rise	1.54967e+007	0.0836	0.7141	0.3039	4.5600e-003		0.0577	0.0577		0.0577	0.0577	0.0000	826.9628	826.9628	0.0159	0.0152	831.8771
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.61571e+007	0.0871	0.7920	0.6653	4.7500e-003		0.0602	0.0602		0.0602	0.0602	0.0000	862.2060	862.2060	0.0165	0.0158	867.3297
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	35700	1.9000e-004	1.7500e-003	1.4700e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.9051	1.9051	4.0000e-005	3.0000e-005	1.9164
Total		**0.1709**	**1.5078**	**0.9706**	**9.3200e-003**		**0.1181**	**0.1181**		**0.1181**	**0.1181**	**0.0000**	**1,691.0739**	**1,691.0739**	**0.0324**	**0.0310**	**1,701.1231**

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					
Apartments Mid Rise	1.54967e+007	0.0836	0.7141	0.3039	4.5600e-003		0.0577	0.0577		0.0577	0.0577	0.0000	826.9628	826.9628	0.0159	0.0152	831.8771
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	1.61571e+007	0.0871	0.7920	0.6653	4.7500e-003		0.0602	0.0602		0.0602	0.0602	0.0000	862.2060	862.2060	0.0165	0.0158	867.3297
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	35700	1.9000e-004	1.7500e-003	1.4700e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.9051	1.9051	4.0000e-005	3.0000e-005	1.9164
Total		**0.1709**	**1.5078**	**0.9706**	**9.3200e-003**		**0.1181**	**0.1181**		**0.1181**	**0.1181**	**0.0000**	**1,691.0739**	**1,691.0739**	**0.0324**	**0.0310**	**1,701.1231**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	5.86321e+006	1,010.6135	0.0771	0.0160	1,017.2968
Enclosed Parking Structure	8.15868e+006	1,406.2717	0.1073	0.0222	1,415.5716
Hotel	2.82414e+006	486.7832	0.0372	7.6900e-003	490.0024
Parking Lot	7392	1.2741	1.0000e-004	2.0000e-005	1.2826
Strip Mall	164250	28.3110	2.1600e-003	4.5000e-004	28.4982
Total		**2,933.2534**	**0.2239**	**0.0463**	**2,952.6515**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	5.71459e+006	984.9964	0.0752	0.0156	991.5103
Enclosed Parking Structure	8.15868e+006	1,406.2717	0.1073	0.0222	1,415.5716
Hotel	2.82414e+006	486.7832	0.0372	7.6900e-003	490.0024

Parking Lot	7392	1.2741	1.0000e-004	2.0000e-005	1.2826
Strip Mall	164250	28.3110	2.1600e-003	4.5000e-004	28.4982
Total		**2,907.6363**	**0.2219**	**0.0459**	**2,926.8650**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	8.6958	0.1751	10.4400	9.0000e-004		0.0622	0.0622		0.0622	0.0622	0.0000	80.9588	80.9588	0.0176	1.1700e-003	81.7491
Unmitigated	8.6958	0.1751	10.4400	9.0000e-004		0.0622	0.0622		0.0622	0.0622	0.0000	80.9588	80.9588	0.0176	1.1700e-003	81.7491

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	1.3496					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.0250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.4600e-003	0.0552	0.0235	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	63.9177	63.9177	1.2300e-003	1.1700e-003	64.2976
Landscaping	0.3147	0.1199	10.4165	5.5000e-004		0.0577	0.0577		0.0577	0.0577	0.0000	17.0411	17.0411	0.0164	0.0000	17.4515
Total	**8.6957**	**0.1751**	**10.4400**	**9.0000e-004**		**0.0622**	**0.0622**		**0.0622**	**0.0622**	**0.0000**	**80.9588**	**80.9588**	**0.0177**	**1.1700e-003**	**81.7491**

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	1.3496					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.0250					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.4600e-003	0.0552	0.0235	3.5000e-004		4.4600e-003	4.4600e-003		4.4600e-003	4.4600e-003	0.0000	63.9177	63.9177	1.2300e-003	1.1700e-003	64.2976
Landscaping	0.3147	0.1199	10.4165	5.5000e-004		0.0577	0.0577		0.0577	0.0577	0.0000	17.0411	17.0411	0.0164	0.0000	17.4515
Total	**8.6957**	**0.1751**	**10.4400**	**9.0000e-004**		**0.0622**	**0.0622**		**0.0622**	**0.0622**	**0.0000**	**80.9588**	**80.9588**	**0.0177**	**1.1700e-003**	**81.7491**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	152.9723	0.1181	0.0707	176.9837
Unmitigated	184.1813	0.1471	0.0882	214.1491

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	104.246 / 65.7206	173.7576	0.1374	0.0824	201.7383
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	6.34169 / 0.704632	8.5835	8.2100e-003	4.9800e-003	10.2725
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.11109 / 0.680989	1.8402	1.4600e-003	8.8000e-004	2.1384
Total		**184.1813**	**0.1471**	**0.0882**	**214.1491**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	83.3972 / 61.7116	144.5171	0.1103	0.0660	166.9381
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	5.07335 / 0.66165	6.9259	6.5700e-003	3.9800e-003	8.2775
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.88887 / 0.639449	1.5293	1.1800e-003	7.0000e-004	1.7682
Total		**152.9723**	**0.1181**	**0.0707**	**176.9837**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	180.3839	10.6604	0.0000	446.8934
Unmitigated	180.3839	10.6604	0.0000	446.8934

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	736	149.4014	8.8294	0.0000	370.1355
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Hotel	136.88	27.7854	1.6421	0.0000	68.8372
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	15.75	3.1971	0.1889	0.0000	7.9207
Total		**180.3839**	**10.6604**	**0.0000**	**446.8934**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	736	149.4014	8.8294	0.0000	370.1355
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Hotel	136.88	27.7854	1.6421	0.0000	68.8372
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	15.75	3.1971	0.1889	0.0000	7.9207
Total		**180.3839**	**10.6604**	**0.0000**	**446.8934**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	50	135	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	5.5400e-003	0.0155	0.0201	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.5704	2.5704	3.6000e-004	0.0000	2.5794
Total	**5.5400e-003**	**0.0155**	**0.0201**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.5704**	**2.5704**	**3.6000e-004**	**0.0000**	**2.5794**

11.0 Vegetation