

**Appendix C1 Greenhouse Gas Emissions Data
(Granada Hills–Knollwood)**

Granada Hills - Knollwood Assumptions And Calculations

Granada Hills - Knollwood Reduction Measures

R1 Reductions

R1 measures are federal, state, and local jurisdiction regulations that will provide greenhouse gas reductions for the City.

M2 Reductions

M2 measures are those measures that further define and enhance existing City goals and policies to provide a quantifiable reduction.

MM Reductions

MM measures are mitigation measures that are applied to further reduce the City's emission goals.

Transportation Reduction Measures

R1-T 1 Assembly Bill 1493: Pavley I & Pavley II

Assembly Bill (AB) 1493 (Pavley) required the California Air Resources Board (CARB) to adopt regulations that will reduce GHG from automobiles and light-duty trucks by 30 percent below 2002 levels by the year 2016, effective with 2009 models. By 2020, this requirement will reduce emissions in California by approximately 16.4 million metric tons of carbon dioxide equivalent (MMT_{CO₂e}). Pavley II committed to further strengthening the AB1493 standards beginning in 2017 to obtain a 45 percent GHG reduction from 2020 model year vehicles. By 2020, this requirement will reduce emissions in California by approximately 4.0 MMT_{CO₂e}.

Pavley Reduction Assumptions:	% of Emissions¹	2030
	% LDA CO ₂ Emissions	50.75%
	% LDT1 CO ₂ Emissions	6.91%
	% LDT2 CO ₂ Emissions	23.16%
	% MDV CO ₂ Emissions	10.11%
	% Reduction in CO₂²	
	LDA	30.60%
	LDT1	28.71%
	LDT2	20.63%
	MDV	20.47%

⁽¹⁾ Source: CalEEMod model

⁽²⁾ Source: BAAQMD Greenhouse Gas Model (BGM), Version 1.1.9 Beta.

R1-T 2 Executive Order S-1-07 (Low Carbon Fuel Standard)

The Low Carbon Fuel Standard (LCFS) requires a reduction of at least ten (10) percent in the carbon intensity of California's transportation fuels by 2020. This requirement will reduce emissions in California by approximately 15 MMT_{CO₂e} from passenger/light-duty vehicles in the state.

Reduction to automobiles & light duty Trucks ⁽¹⁾	2030
=	7.20%

Granada Hills - Knollwood Reduction Measures

R1-T 3 Tire Pressure Program

The AB 32 early action measure involves actions to ensure that vehicle tire pressure is maintained to manufacturer specifications. By 2020, this requirement will reduce emissions in California by approximately 0.55 MMTCO₂e, representing 0.3 percent of emissions from passenger/light-duty vehicles in the state.

		2030
Reduction to automobiles & light duty Trucks	=	0.30%

R1-T 4 Low Rolling Resistance Tires

This created an energy efficiency standard for automobile tires to reduce rolling resistance. By 2020, this requirement will reduce emissions in California by approximately 0.3 MMTCO₂e, representing 0.2 percent of emissions from passenger/light-duty vehicles in the state.

		2030
Reduction to automobiles & light duty Trucks	=	0.30%

R1-T 5 Low Friction Engine Oils

This AB 32 early action measure would increase vehicle efficiency by mandating the use of engine oils that meet certain low friction specifications. By 2020, this requirement will reduce emissions in California by approximately 2.8 MMTCO₂e, representing 1.7 percent of emissions from passenger light-duty vehicles in the state.

		2030
Reduction to automobiles & light duty Trucks	=	1.70%

R1-T 6 Cool Paints and Reflective Glazing

This AB 32 early action measure is based on measures to reduce the solar heat gain in a vehicle parked in the sun. By 2020, this requirement will reduce emissions in California by approximately 0.89 MMTCO₂e, representing 0.6 percent of emissions from passenger/light-duty vehicles in the state.

		2030
Reduction to automobiles & light duty Trucks	=	0.60%

R1-T 7 Goods Movement Efficiency Measures

This AB 32 early action measure targets system wide efficiency improvements in goods movement to achieve GHG reductions from reduced diesel combustion. By 2020, this requirement will reduce emissions in California by approximately 3.5 MMTCO₂e, representing 1.6 Percent of emissions from all mobile sources (on-road and off-road) in the state.

		2030
Reduction afforded to Medium and Heavy Duty Vehicle emissions	=	1.60%

Granada Hills - Knollwood Reduction Measures

R1-T 8 Heavy-Duty Vehicle GHG Emission Reduction (Aerodynamic Efficiency)

This AB 32 early action measure would increase heavy-duty vehicle (long-haul trucks) efficiency by requiring installation of best available technology and/or CARB approved technology to reduce aerodynamic drag and rolling resistance. By 2020, this requirement will reduce emissions in California by approximately 0.93 MMTCO₂e, representing 1.9 percent of emissions from heavy-duty vehicles in the state.

Reduction afforded to Heavy Duty Vehicles	2030
emissions	= 1.90%

R1-T 9 Medium and Heavy Duty Vehicle Hybridization

The implementation approach for this AB 32 measure is to adopt a regulation and/or incentive program that reduce the GHG emissions of new trucks (parcel delivery trucks and vans, utility trucks, garbage trucks, transit buses, and other vocational work trucks) sold in California by replacing them with hybrids. By 2020, this requirement will reduce emissions in California by approximately 0.5 MMTCO₂e, representing 0.2 percent of emissions from all on-road mobile sources in the state. This reduction is also equivalent to a 1.0 percent reduction of emissions from all heavy-duty trucks in the state.

Reduction afforded to Medium & Heavy Duty	2030
Vehicle Emissions	= 0.20%

MM 4.2-14 Anti-Idling Enforcement

The Applicant shall require by contract specifications that electrical outlets are included in the building design of the loading docks to allow use by refrigerated delivery trucks. The proposed project Applicant shall require that no trucks idled for more than five minutes. If loading and/or unloading of perishable goods would occur for more than 5 minutes, and continual refrigeration is required, all refrigerated delivery trucks shall use the electrical outlets to continue powering the truck refrigeration units when the delivery truck engine is turned off. Supports the City's Green Industry Goals (LU13 and 15).

Assumptions:

- * By 2020, this measure results in a 1.8% reduction in exhaust from Medium Duty Vehicles in the City.
- * By 2020, this measure results in a 1.8% reduction in exhaust from Heavy Duty Vehicles in the City.
- * Measures R1-T1 through R1-T6 are implemented.

Reductions:

	2030
% Medium Duty that is diesel ⁽²⁾	= 0.00%
% Heavy Duty that is diesel ⁽²⁾	= 48.73%
% reduction afforded by this measure	= 1.80%
Reduction afforded to Medium Duty Vehicle	
Emissions	= 0.00%
Reduction afforded to Heavy Duty Vehicle	
Emissions	= 0.88%

⁽²⁾ Source: URBEMIS 2007 Version 9.2.4.

Granada Hills - Knollwood Reduction Measures

MM 4.2-18 Employment Based Trip and VMT Reduction

Project Applicant shall promote trip reduction through commuter-choice programs, employer transportation management, guaranteed ride home programs, and commuter assistance and outreach type programs intended to reduce commuter vehicle miles traveled. This measure would require employers with more than 100 employees establish a trip reduction plan that would incorporate annual employee commute surveys, marketing of commute alternatives, ride matching assistance, and transit information at a minimum, and implements secure bicycle parking, showers and lockers for employees who bike to work . Further this measure would encourage smaller businesses located in close proximity to cooperate in establishing joint trip reduction plans. Supports and enhances Community Plan Goal M9.

Assumptions:

- * Assumes that a 100% eligibility rate is established by 2030 (6.2% reduction in emissions) for new industrial development.
- * Assumes that a 10% eligibility rate is established by 2030 (0.62% reduction in emissions) for new commercial development.
- * Measures R1-T1 through R1-T7 are implemented.
- * Assumes that 75% of new development has Bicycle amenities.

Reductions:

	2030
Reduction afforded Industrial ⁽³⁾ =	6.20%
% Industrial Auto =	0.20%
% Auto Reduction =	0.01%
% commercial =	0.62%
% Commercial Auto =	47.20%
% auto reduction ⁽³⁾ =	0.29%
% Industrial and Commercial Auto =	47.41%
% reduction from bicycle amenities ⁽³⁾ =	0.47%
% auto Reduction =	0.22%

⁽³⁾ Source: CAPCOA. *Quantifying Greenhouse Gas Mitigation Measures August 2010.*

MM 4.2-19 Car and Bicycleshares

Project Applicant shall implement car and bicycle sharing programs. Project Applicant shall collaborate with service providers to identify potential sites for locating carshares, such that a minimum of 20 percent of new development participates in these programs by 2030. Supports and enhances Community Plan Goals M4, M5 and M9.

Assumptions:

- * ⁽³⁾ Assumes a 20% implementation for all new development.
- * ⁽³⁾ Reduction afforded for passenger and light duty trucks only.

Reductions:

	2030
Reduction afforded =	0.74%

Granada Hills - Knollwood Reduction Measures

MM 4.2-20 Safe and Convenient Public Transit

Major employers (companies with more than 100 employees) shall provide employer-based “open-door” shuttles to local transit hubs. Collaborate with regional transportation agencies to maintain and enhance service within the City and region. Explore strategies to address affordability, access and safety. Expand outreach and information programs to promote transit use. Implementation of this measure shall increase transit network coverage and reduce headway by 20 percent by 2030. Supports and enhances Community Plan Policies M5, M6 and M9.

Assumptions:

- * Reduction afforded for passenger and light duty trucks only.
- * Measures R1-T1 through R1-T7 and R2-T1 - R2-T4 are implemented.
- * Assumes reduction to City-wide emissions not just project.
- * Assumes 20% reduction in headway
- * Assumes 20% increase in transit network coverage

Reductions:

	2030
Reduction afforded for expanded transit service ⁽³⁾ =	1.64%
Reduction afforded for increase in service frequency ⁽³⁾ =	0.36%
Total Reduction =	2.00%

Energy Reduction Measures

R1-E 1 Renewable Portfolio Standard for Building Energy Use

Senate Bills (SBs) 1075 (2002) and 107 (2006) created the state's Renewable Portfolio Standard (RPS), with an initial goal of 20 percent renewable energy production by 2010. Executive Order (EO) S-14-08 establishes a RPS target of 33 percent by the year 2020 and requires state agencies to take all appropriate actions to ensure the target is met. The 33 percent RPS by 2020 goal is supported by the California Air Resources Board (CARB), though its feasibility is not certain due to current limitations in production and transmission of renewable energy.

Assumptions:

- * LADWP reaches its 33% goal for 2020.
- * Assumes that in 2009 SCE's renewable portfolio was at 17%
- * Assumes a 33% reduction in new emissions generated past 2020.
- * Assumes R1-E2 through R1-E6 have been implemented.

	Residential	Non-Residential
Reductions:	2030	2030
% of usage from Existing =	-	-
% reduction from 2005 levels =	-	-
Total % reduction from Existing =	-	-
% of usage from Growth =	100.00%	100.00%
% reduction from Growth =	33.00%	33.00%
Total % reduction from Growth =	33.00%	33.00%
% percent reduction =	33.00%	33.00%

Granada Hills - Knollwood

Reduction Measures

R1-E 2 & 3 AB 1109 Energy Efficiency Standard for Lighting

Assembly Bill (AB 1109) mandated that the California Energy Commission (CEC) adopt energy efficiency standards for general purpose lighting. These regulations, combined with other state efforts, shall be structured to reduce state-wide electricity consumption in the following ways:

- * R1-E2: At least 50 percent reduction from 2007 levels for indoor residential lighting by 2018; and
- * R1-E3: At least 25 percent reduction from 2007 levels for indoor commercial and outdoor lighting by 2018.

Reductions:

% reduction from residential electrical use	=	50.00%
% reduction from commercial/industrial electrical use	=	25.00%

R1-E 4 Electrical Energy Efficiency

This measure captures the emission reductions associated with electricity energy efficiency activities included in CARB's AB 32 Scoping Plan that are not attributed to other R1 or R2 reductions as described in this report. This measure includes energy efficiency measures that CARB views as crucial to meeting the state-wide 2020 target, and will result in additional emissions reductions beyond those already accounted for in California's Energy Efficiency Standards for Residential and Non-Residential Buildings (Title 24, Part 6 of the California Code of Regulations; hereinafter referred to as, "Title 24 Energy Efficiency Standards"), etc. By 2020, this requirement will reduce emissions in California by approximately 21.3 MMTCO_{2e}, representing 17.5 percent of emissions from all electricity in the State. This measure includes the following strategies:

- * "Zero Net Energy" buildings (buildings that combine energy efficiency and renewable generation so that they, based on an annual average, extract no energy from the grid);
- * Broader standards for new types of appliances and for water efficiency;
- * Improved compliance and enforcement of existing standards;
- * Voluntary efficiency and green building targets beyond mandatory codes;
- * Voluntary and mandatory whole-building retrofits for existing buildings;
- * Innovative financing to overcome first-cost and split incentives for energy efficiency, on-site renewables, and high efficiency distributed generation;
- * More aggressive utility programs to achieve long-term savings;
- * Water system and water use efficiency and conservation measures;
- * Additional industrial and agricultural efficiency initiatives; and
- * Providing real time energy information technologies to help consumers conserve and optimize energy performance.

Assumptions:

- * Accounted for in CalEEMod modeling.

Granada Hills - Knollwood

Reduction Measures

R1-E 5 Natural Gas Energy Efficiency

This measure captures the emission reductions associated with natural gas energy efficiency activities included in CARB's AB 32 Scoping Plan that are not attributed to other R1 or R2 reductions, as described in this report. This measure includes energy efficiency measures that CARB views as crucial to meeting the state-wide 2020 target, and will result in additional emissions reductions beyond those already accounted for in California's Energy Efficiency Standards for Residential and Non-Residential Buildings (Title 24, Part 6 of the California Code of Regulations; hereinafter referred to as, "Title 24 Energy Efficiency Standards") etc. By 2020, this requirement will reduce emissions in California by approximately 4.3 MMTCO₂e, representing 6.2 percent of emissions from all natural gas combustion in the state. This measure includes the following strategies:

- * "Zero Net Energy" buildings (buildings that combine energy efficiency and renewable generation so that they, based on an annual average, extract no energy from the grid);
- * Broader standards for new types of appliances and for water efficiency;
- * Improved compliance and enforcement of existing standards;
- * Voluntary efficiency and green building targets beyond mandatory codes;
- * Voluntary and mandatory whole-building retrofits for existing buildings;
- * Innovative financing to overcome first-cost and split incentives for energy efficiency, on-site renewables, and high efficiency distributed generation;
- * More aggressive utility programs to achieve long-term savings;
- * Water system and water use efficiency and conservation measures;
- * Additional industrial and agricultural efficiency initiatives; and
- * Providing real time energy information technologies to help consumers conserve and optimize energy performance.

Assumptions:

- * Accounted for in CalEEMod modeling.

R1-E 6 Increased Combined Heat and Power

This measure captures the reduction in building electricity emissions associated with the increase of combined heat and power activities, as outlined in CARB's AB 32 Scoping Plan. The Scoping Plan suggests that increased combined heat and power systems, which capture "waste heat" produced during power generation for local use, will offset 30,000 GWh state-wide in 2020. Approaches to lowering market barriers include utility-provided incentive payments, a possible CHP portfolio standard, transmission and distribution support systems, or the use of feed-in tariffs. By 2020, this requirement will reduce emissions in California by approximately 6.7 MMTCO₂e, representing 7.6 percent of emissions from all electricity in the state.

Assumptions:

- * The percent reduction from California's emissions is equal to the City's emissions from this measures or 7.6%.

Reductions:

	2030
% reduction afforded	= 7.60%

Granada Hills - Knollwood

Reduction Measures

Solid Waste Reduction Measures

R1-W1 Waste Reduction and recycling Program

California state regulations require a minimum diversion of 50% of all generated waste from landfills.

Reductions:		2030
	% reduction applied =	50.00%

*Climate LA increases this to 70% and reductions are accounted for in the CalEEMod model.

Other Fuels

R1-O1 Wood burning stoves and fireplaces

SCAQMD has banned the indoor use of all woodburning devices (stoves and furnaces).

Assumptions:

- * Applies to all new construction.
- * Assumes all non-natural gas emissions are eliminated from new residential properties.

Reductions:		2030
	% reduction applied	100.00%

*Reductions are accounted for in the CalEEMod model.

MM 4.6-1 Landscape Equipment

The Project Applicant shall ensure that all new development is equipped with outdoor electrical outlets such that a minimum of 10% of all landscaping equipment's fuel use can be offset.

Assumptions:

- * Applies to all new construction.
- * Assumes 10% of landscape equipment is electric.

Reductions:		2030
	% new development participation	100.00%
	% reduction ⁽²⁾	10.00%
	% reduction applied	10.00%

*Reductions are accounted for in the CalEEMod model.

Granada Hills - Knollwood Assumptions

Energy

Electric

	Total	Title 24	Non Title 24	Lighting
SFR	9,997.29	713.71	6,978.58	2,305.00
MFR	980.76	45.72	684.86	250.18
Commercial	32,975.26	12,754.37	10,484.91	9,735.99
Industrial	213.24	82.54	67.85	62.86

	Total	Total %	Title 24	%	Non Title 24	%	Lighting	%
SFR	6,412.50	100.00%	457.79	7.14%	4,476.23	69.80%	1,478.48	23.06%
MFR	3,435.59	100.00%	160.16	4.66%	2,399.07	69.83%	876.36	25.51%
Commercial	14.53	100.00%	5.62	38.68%	4.62	31.80%	4.29	29.53%
Industrial	14.52	100.00%	5.62	38.71%	4.62	31.82%	4.28	29.48%

Natural Gas

	Total	Title 24	Non-Title 24
SFR	6,825.35	5,836.02	989.33
MFR	628.90	544.65	84.25
Commercial	2,649.79	2,555.24	94.55
Industrial	17.14	16.53	0.61

	Total	Total %	Title 24	%	Non-Title 24	%
SFR	40,982.76	100.00%	35,042.36	85.51%	5,940.40	14.49%
MFR	20,623.06	100.00%	17,860.46	86.60%	2,762.60	13.40%
Commercial	10.93	100.00%	10.54	96.43%	0.39	3.57%
Industrial	10.93	100.00%	10.54	96.43%	0.39	3.57%

Other Sources

	Landscape CalEEMod	Hearth CalEEMod	Waste CalEEMod	Water CalEEMod
Residential	90.32	2,394.00	389.07	2,179.07
Comm	0.00	0.00	573.12	7,243.11
Industrial	0.00	0.00	49.05	853.54

*Reductions accounted for in the CalEEMod model.

Transportation

	Total	%
Residential	35,269.48	52.59%
Comm	31,654.88	47.20%
Industrial	136.33	0.20%
Total	67,060.69	

Granada Hills - Knollwood Residential Energy Reduction Summary

	2030	% Title 24	% Non-T24	% Lighting
Single Family				
Electricity	9,997	7.14%	69.80%	23.06%
Natural Gas	6,825	85.51%	14.49%	
	16,823			
Multi Family				
Electricity	981	4.66%	69.83%	25.51%
Natural Gas	629	86.60%	13.40%	
	1,610			

	Electricity		Natural Gas	
	SFR	MFR	SFR	MFR
BAU:	9,997	981	6,825	629
R1-E1:	33.00%	33.00%		
	6,698	657		
R1-E2:	50.00%	50%		
T24	478.19	30.63		
No-T24	4,675.65	458.86		
Lighting	772.17	83.81		
	5,926	573		
R1-E6:	7.60%	7.60%		
T24	441.84	28.30		
No-T24	4,320.30	423.99		
Lighting	713.49	77.44		
	5,476	530		

Reduced	5,475.6	529.7	Total Reduced	6,825	629
% Reduction	45.23%		% Reduction	0.00%	0.00%

Combined reduced	6,005	Combined reduced	7,454
% Reduction	45.30%	% Reduction	0.00%

Granada Hills - Knollwood Commercial Energy Reduction Summary

	2030	% Title 24	% Non-T24	% Lighting
Electricity	32,975	38.68%	31.80%	29.53%
Natural Gas	2,650	96.43%	3.57%	
	35,625			

Electricity		Natural Gas	
BAU:	32,975	BAU:	2,650
R1-E1:	33.00%		
	22,093		
R1-E3:	25.00%		
T24	8,545.43		
No-T24	7,024.89		
Lighting	4,892.33		
	20,463		
R1-E6:	7.60%		
T24	7,895.97		
No-T24	6,491.00		
Lighting	4,520.52		
	18,907		

Reduced	18,907.5	Total Reduced	2,650
% Reduction	42.66%	% Reduction	0.00%

Granada Hills - Knollwood Industrial Energy Reduction Summary

	2030	% Title 24	% Non-T24	% Lighting
Electricity	213	38.71%	31.82%	29.48%
Natural Gas	17	96.43%	3.57%	
	230			

Electricity		Natural Gas	
BAU:	213	BAU:	17
R1-E1:	33.00%		
	143		
R1-E3:	25.00%		
T24	55.30		
No-T24	45.46		
Lighting	31.59		
	132		
R1-E6:	7.60%		
T24	51.10		
No-T24	42.00		
Lighting	29.18		
	122		

Reduced	122.3	Total Reduced	17
% Reduction	42.65%	% Reduction	0.00%

Granada Hills - Knollwood Transportation Reduction Summary

Business-As-Usual Inventory MT CO₂e

	2030
Light Duty Auto	34,034
Light Duty Truck 1	4,633
Light Duty Truck 2	15,533
Medium Duty Vehicle	6,782
Heavy Duty Vehicles	5,232
Rest	846
Total	67,061

Transportation Emission Reductions

		2030			2030			2030
R1-T1			R1-T4	0.30%		R1-T7	1.60%	
LDA	23,620		LDA	21,788		LDA	21,657	
LDT1	3,303		LDT1	3,047		LDT1	3,029	
LDT2	12,329		LDT2	11,373		LDT2	11,304	
MDV	5,394		MDV	5,394		MDV	5,308	
HDV	5,232		HDV	5,232		HDV	5,148	
Rest	846		Rest	846		Rest	846	
	50,723			47,679			47,292	
R1-T2	7.20%		R1-T5	1.70%		R1-T8	1.90%	
LDA	21,919		LDA	21,417		LDA	21,657	
LDT1	3,065		LDT1	2,995		LDT1	3,029	
LDT2	11,441		LDT2	11,179		LDT2	11,304	
MDV	5,394		MDV	5,394		MDV	5,207	
HDV	5,232		HDV	5,232		HDV	5,050	
Rest	846		Rest	846		Rest	846	
	47,897			47,063			47,093	
R1-T3	0.30%		R1-T6	0.60%		R1-T9	0.20%	
LDA	21,853		LDA	21,657		LDA	21,657	
LDT1	3,056		LDT1	3,029		LDT1	3,029	
LDT2	11,407		LDT2	11,304		LDT2	11,304	
MDV	5,394		MDV	5,394		MDV	5,207	
HDV	5,232		HDV	5,232		HDV	5,040	
Rest	846		Rest	846		Rest	846	
	47,788			47,462			47,083	

Granada Hills - Knollwood Transportation Reduction Summary

	2030		2030		
TIMP	0.77%	MM 4.2-18	0.29%	MM 4.2-20	2.00%
LDA	21,491	LDA	21,425	LDA	20,794
LDT1	3,005	LDT1	2,996	LDT1	2,908
LDT2	11,217	LDT2	11,183	LDT2	10,854
MDV	5,167	MDV	5,167	MDV	5,167
HDV	5,002	HDV	4,958	HDV	4,958
Rest	846	Rest	846	Rest	846
	46,727		46,575		45,525
MM 4.2-14	0.88%	MM 4.2-18	0.22%		
LDA	21,491	LDA	21,377		
LDT1	3,005	LDT1	2,989		
LDT2	11,217	LDT2	11,158		
MDV	5,167	MDV	5,167		
HDV	4,958	HDV	4,958		
Rest	846	Rest	846		
	46,684		46,495		
MM 4.2-18	0.01%	MM 4.2-19	0.74%		
LDA	21,488	LDA	21,219		
LDT1	3,005	LDT1	2,967		
LDT2	11,216	LDT2	11,076		
MDV	5,167	MDV	5,167		
Rest	846	Rest	846		
	92,517		46,232		
	46,679				

Total Reduced	45,525
% Reduction	32.11%
% emissions from HDT:	10.89%

Granada Hills - Knollwood 2005 CalEEMod Output

**Granada Hills Existing Condition
Los Angeles-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	2883.46	1000sqft
Manufacturing	28.18	1000sqft
Apartments Low Rise	3226	Dwelling Unit
Single Family Housing	15987	Dwelling Unit

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Utility Company** Los Angeles Department of Water & Power
Climate Zone 11 **Precipitation Freq (Days)** 33

1.3 User Entered Comments

Project Characteristics - Existing Year is 2005. Historic data used.
 Land Use - Acreage, Population, and Unit Amounts from Project Description
 Construction Phase - No Construction, already built
 Off-road Equipment - No Construction

Vehicle Trips - Based on LA GPF

Energy Use - This is the existing year of 2005, historic data is appropriate

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	235.46	6.20	460.28	0.21		0.00	20.32		0.00	20.31	2,040.79	12,242.97	14,283.76	7.00	0.28	14,518.33
Energy	4.45	38.11	16.96	0.24		0.00	3.07		0.00	3.07	0.00	133,993.45	133,993.45	2.95	1.61	134,553.29
Mobile	386.77	828.40	3,876.92	6.03	275.47	26.60	302.07	10.59	26.60	37.19	0.00	277,592.36	277,592.36	26.78	0.00	278,154.79
Waste						0.00	0.00		0.00	0.00	4,972.21	0.00	4,972.21	293.85	0.00	11,143.04
Water						0.00	0.00		0.00	0.00	0.00	20,826.73	20,826.73	58.57	1.63	22,560.54
Total	626.68	872.71	4,354.16	6.48	275.47	26.60	325.46	10.59	26.60	60.57	7,013.00	444,655.51	451,668.51	389.15	3.52	460,929.99

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	235.46	6.20	460.28	0.21		0.00	20.32		0.00	20.31	2,040.79	12,242.97	14,283.76	7.00	0.28	14,518.33
Energy	4.45	38.11	16.96	0.24		0.00	3.07		0.00	3.07	0.00	133,993.45	133,993.45	2.95	1.61	134,553.29
Mobile	386.77	828.40	3,876.92	6.03	275.47	26.60	302.07	10.59	26.60	37.19	0.00	277,592.36	277,592.36	26.78	0.00	278,154.79
Waste						0.00	0.00		0.00	0.00	4,972.21	0.00	4,972.21	293.85	0.00	11,143.04
Water						0.00	0.00		0.00	0.00	0.00	20,826.73	20,826.73	58.57	1.63	22,560.54
Total	626.68	872.71	4,354.16	6.48	275.47	26.60	325.46	10.59	26.60	60.57	7,013.00	444,655.51	451,668.51	389.15	3.52	460,929.99

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

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	386.77	828.40	3,876.92	6.03	275.47	26.60	302.07	10.59	26.60	37.19	0.00	277,592.36	277,592.36	26.78	0.00	278,154.79
Unmitigated	386.77	828.40	3,876.92	6.03	275.47	26.60	302.07	10.59	26.60	37.19	0.00	277,592.36	277,592.36	26.78	0.00	278,154.79
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	21,259.34	23,098.16	19581.82	56,441,737	56,441,737
General Office Building	31,746.89	6,833.80	2825.79	50,144,048	50,144,048
Manufacturing	107.65	41.99	17.47	202,970	202,970
Single Family Housing	152,995.59	161,148.96	140205.99	403,993,975	403,993,975
Total	206,109.47	191,122.91	162,631.07	510,782,729	510,782,729

4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Apartments Low Rise	10.00	7.00	7.00	40.20	19.20	40.60
General Office Building	7.00	7.00	7.00	33.00	48.00	19.00

Land Use	Miles			Trip %		
	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
Manufacturing	7.00	7.00	7.00	59.00	28.00	13.00
Single Family Housing	10.00	7.00	7.00	40.20	19.20	40.60

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	89,982.54	89,982.54	2.11	0.80	90,274.54
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	89,982.54	89,982.54	2.11	0.80	90,274.54
NaturalGas Mitigated	4.45	38.11	16.96	0.24		0.00	3.07		0.00	3.07	0.00	44,010.91	44,010.91	0.84	0.81	44,278.75
NaturalGas Unmitigated	4.45	38.11	16.96	0.24		0.00	3.07		0.00	3.07	0.00	44,010.91	44,010.91	0.84	0.81	44,278.75
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	tons/yr										MT/yr					
Apartments Low Rise	7.08668e+007	0.38	3.27	1.39	0.02		0.00	0.26		0.00	0.26	0.00	3,781.72	3,781.72	0.07	0.07	3,804.74
General Office Building	3.58702e+007	0.19	1.76	1.48	0.01		0.00	0.13		0.00	0.13	0.00	1,914.17	1,914.17	0.04	0.04	1,925.82
Manufacturing	557964	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	29.78	29.78	0.00	0.00	29.96
Single Family Housing	7.17438e+008	3.87	33.06	14.07	0.21		0.00	2.67		0.00	2.67	0.00	38,285.23	38,285.23	0.73	0.70	38,518.23
Total		4.44	38.12	16.96	0.24		0.00	3.06		0.00	3.06	0.00	44,010.90	44,010.90	0.84	0.81	44,278.75

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	tons/yr										MT/yr					
Apartments Low Rise	7.08668e+007	0.38	3.27	1.39	0.02		0.00	0.26		0.00	0.26	0.00	3,781.72	3,781.72	0.07	0.07	3,804.74
General Office Building	3.58702e+007	0.19	1.76	1.48	0.01		0.00	0.13		0.00	0.13	0.00	1,914.17	1,914.17	0.04	0.04	1,925.82
Manufacturing	557964	0.00	0.03	0.02	0.00		0.00	0.00		0.00	0.00	0.00	29.78	29.78	0.00	0.00	29.96
Single Family Housing	7.17438e+008	3.87	33.06	14.07	0.21		0.00	2.67		0.00	2.67	0.00	38,285.23	38,285.23	0.73	0.70	38,518.23
Total		4.44	38.12	16.96	0.24		0.00	3.06		0.00	3.06	0.00	44,010.90	44,010.90	0.84	0.81	44,278.75

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	1.121e+007					6,297.59	0.15	0.06	6,318.02
General Office Building	4.39439e+007					24,686.96	0.58	0.22	24,767.07
Manufacturing	353377					198.52	0.00	0.00	199.17
Single Family Housing	1.04666e+008					58,799.47	1.38	0.52	58,990.28
Total						89,982.54	2.11	0.80	90,274.54

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	1.121e+007					6,297.59	0.15	0.06	6,318.02
General Office Building	4.39439e+007					24,686.96	0.58	0.22	24,767.07
Manufacturing	353377					198.52	0.00	0.00	199.17
Single Family Housing	1.04666e+008					58,799.47	1.38	0.52	58,990.28
Total						89,982.54	2.11	0.80	90,274.54

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	235.46	6.20	460.28	0.21		0.00	20.32		0.00	20.31	2,040.79	12,242.97	14,283.76	7.00	0.28	14,518.33
Unmitigated	235.46	6.20	460.28	0.21		0.00	20.32		0.00	20.31	2,040.79	12,242.97	14,283.76	7.00	0.28	14,518.33
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	30.88					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	126.16					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	63.72	1.60	120.76	0.19		0.00	18.89		0.00	18.88	2,040.79	11,765.07	13,805.86	6.24	0.28	14,024.34
Landscaping	14.70	4.61	339.52	0.02		0.00	1.43		0.00	1.43	0.00	477.90	477.90	0.77	0.00	493.98
Total	235.46	6.21	460.28	0.21		0.00	20.32		0.00	20.31	2,040.79	12,242.97	14,283.76	7.01	0.28	14,518.32

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	30.88					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	126.16					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	63.72	1.60	120.76	0.19		0.00	18.89		0.00	18.88	2,040.79	11,765.07	13,805.86	6.24	0.28	14,024.34
Landscaping	14.70	4.61	339.52	0.02		0.00	1.43		0.00	1.43	0.00	477.90	477.90	0.77	0.00	493.98
Total	235.46	6.21	460.28	0.21		0.00	20.32		0.00	20.31	2,040.79	12,242.97	14,283.76	7.01	0.28	14,518.32

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					20,826.73	58.57	1.63	22,560.54
Unmitigated					20,826.73	58.57	1.63	22,560.54
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	210.187 / 132.509					2,366.91	6.47	0.18	2,558.64
General Office Building	512.488 / 314.106					5,715.05	15.78	0.44	6,182.36
Manufacturing	138.559 / 0					1,015.11	4.25	0.11	1,139.74
Single Family Housing	1041.62 / 656.672					11,729.65	32.07	0.89	12,679.80
Total						20,826.72	58.57	1.62	22,560.54

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	210.187 / 132.509					2,366.91	6.47	0.18	2,558.64
General Office Building	512.488 / 314.106					5,715.05	15.78	0.44	6,182.36
Manufacturing	138.559 / 0					1,015.11	4.25	0.11	1,139.74
Single Family Housing	1041.62 / 656.672					11,729.65	32.07	0.89	12,679.80
Total						20,826.72	58.57	1.62	22,560.54

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					4,972.21	293.85	0.00	11,143.04
Unmitigated					4,972.21	293.85	0.00	11,143.04
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	1483.96					301.23	17.80	0.00	675.08
General Office Building	2681.62					544.34	32.17	0.00	1,219.91
Manufacturing	304.34					61.78	3.65	0.00	138.45
Single Family Housing	20024.8					4,064.86	240.23	0.00	9,109.60
Total						4,972.21	293.85	0.00	11,143.04

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	1483.96					301.23	17.80	0.00	675.08
General Office Building	2681.62					544.34	32.17	0.00	1,219.91
Manufacturing	304.34					61.78	3.65	0.00	138.45
Single Family Housing	20024.8					4,064.86	240.23	0.00	9,109.60
Total						4,972.21	293.85	0.00	11,143.04

9.0 Vegetation



Granada Hills - Knollwood 2030 CalEEMod Output

Granada Hills - 2030 Res Growth
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	3102	Dwelling Unit
Apartments Low Rise	568	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Los Angeles Department of Water & Power
Climate Zone	11	Precipitation Freq (Days)	33		

1.3 User Entered Comments

Project Characteristics - Based on LADWP 2011 Power Integration Resource Plan dated December 22, 2011

Land Use - Units, acreage and population based on Project Data

Construction Phase - No construction scenario available

Off-road Equipment - No construction available

Vehicle Trips - Based on LA GPF

Energy Use - defaults used

Area Mitigation -
 Water Mitigation -
 Waste Mitigation -

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	38.47	0.95	78.77	0.04		0.00	3.92		0.00	3.92	389.82	2,338.61	2,728.43	1.28	0.05	2,771.99
Energy	0.75	6.40	2.72	0.04		0.00	0.52		0.00	0.52	0.00	18,347.39	18,347.39	0.43	0.24	18,432.30
Mobile	15.27	36.90	126.81	0.48	47.66	2.31	49.97	0.76	2.25	3.01	0.00	35,246.91	35,246.91	1.07	0.00	35,269.48
Waste						0.00	0.00		0.00	0.00	578.69	0.00	578.69	34.20	0.00	1,296.89
Water						0.00	0.00		0.00	0.00	0.00	2,400.51	2,400.51	7.36	0.20	2,618.63
Total	54.49	44.25	208.30	0.56	47.66	2.31	54.41	0.76	2.25	7.45	968.51	58,333.42	59,301.93	44.34	0.49	60,389.29

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	26.46	0.63	54.39	0.00		0.00	0.47		0.00	0.47	0.00	2,468.10	2,468.10	0.13	0.04	2,484.32
Energy	0.75	6.40	2.72	0.04		0.00	0.52		0.00	0.52	0.00	18,347.39	18,347.39	0.43	0.24	18,432.30
Mobile	15.27	36.90	126.81	0.48	47.66	2.31	49.97	0.76	2.25	3.01	0.00	35,246.91	35,246.91	1.07	0.00	35,269.48
Waste						0.00	0.00		0.00	0.00	173.61	0.00	173.61	10.26	0.00	389.07
Water						0.00	0.00		0.00	0.00	0.00	2,004.27	2,004.27	5.89	0.16	2,179.07
Total	42.48	43.93	183.92	0.52	47.66	2.31	50.96	0.76	2.25	4.00	173.61	58,066.67	58,240.28	17.78	0.44	58,754.24

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

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	15.27	36.90	126.81	0.48	47.66	2.31	49.97	0.76	2.25	3.01	0.00	35,246.91	35,246.91	1.07	0.00	35,269.48
Unmitigated	15.27	36.90	126.81	0.48	47.66	2.31	49.97	0.76	2.25	3.01	0.00	35,246.91	35,246.91	1.07	0.00	35,269.48
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	3,743.12	4,066.88	3447.76	9,937,665	9,937,665
Single Family Housing	29,686.14	31,268.16	27204.54	78,388,022	78,388,022
Total	33,429.26	35,335.04	30,652.30	88,325,687	88,325,687

4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Apartments Low Rise	10.00	7.00	7.00	40.20	19.20	40.60
Single Family Housing	10.00	7.00	7.00	40.20	19.20	40.60

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	10,938.23	10,938.23	0.29	0.11	10,978.05
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	10,938.23	10,938.23	0.29	0.11	10,978.05
NaturalGas Mitigated	0.75	6.40	2.72	0.04		0.00	0.52		0.00	0.52	0.00	7,409.16	7,409.16	0.14	0.14	7,454.25
NaturalGas Unmitigated	0.75	6.40	2.72	0.04		0.00	0.52		0.00	0.52	0.00	7,409.16	7,409.16	0.14	0.14	7,454.25
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	tons/yr										MT/yr					
Apartments Low Rise	1.17139e+007	0.06	0.54	0.23	0.00		0.00	0.04		0.00	0.04	0.00	625.10	625.10	0.01	0.01	628.90
Single Family Housing	1.27129e+008	0.69	5.86	2.49	0.04		0.00	0.47		0.00	0.47	0.00	6,784.06	6,784.06	0.13	0.12	6,825.35
Total		0.75	6.40	2.72	0.04		0.00	0.51		0.00	0.51	0.00	7,409.16	7,409.16	0.14	0.13	7,454.25

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	tons/yr										MT/yr					
Apartments Low Rise	1.17139e+007	0.06	0.54	0.23	0.00		0.00	0.04		0.00	0.04	0.00	625.10	625.10	0.01	0.01	628.90
Single Family Housing	1.27129e+008	0.69	5.86	2.49	0.04		0.00	0.47		0.00	0.47	0.00	6,784.06	6,784.06	0.13	0.12	6,825.35
Total		0.75	6.40	2.72	0.04		0.00	0.51		0.00	0.51	0.00	7,409.16	7,409.16	0.14	0.13	7,454.25

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	1.95142e+006					977.20	0.03	0.01	980.76
Single Family Housing	1.98916e+007					9,961.02	0.26	0.10	9,997.29
Total						10,938.22	0.29	0.11	10,978.05

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	1.95142e+006					977.20	0.03	0.01	980.76
Single Family Housing	1.98916e+007					9,961.02	0.26	0.10	9,997.29
Total						10,938.22	0.29	0.11	10,978.05

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive 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	26.46	0.63	54.39	0.00		0.00	0.47		0.00	0.47	0.00	2,468.10	2,468.10	0.13	0.04	2,484.32
Unmitigated	38.47	0.95	78.77	0.04		0.00	3.92		0.00	3.92	389.82	2,338.61	2,728.43	1.28	0.05	2,771.99
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.40					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	22.23					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	12.17	0.31	23.07	0.04		0.00	3.61		0.00	3.61	389.82	2,247.32	2,637.15	1.19	0.05	2,678.88
Landscaping	1.67	0.64	55.70	0.00		0.00	0.31		0.00	0.31	0.00	91.29	91.29	0.09	0.00	93.11
Total	38.47	0.95	78.77	0.04		0.00	3.92		0.00	3.92	389.82	2,338.61	2,728.44	1.28	0.05	2,771.99

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	2.40					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	22.23					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.24	0.00	0.01	0.00		0.00	0.17		0.00	0.16	0.00	2,379.52	2,379.52	0.05	0.04	2,394.00
Landscaping	1.59	0.63	54.38	0.00		0.00	0.30		0.00	0.30	0.00	88.58	88.58	0.08	0.00	90.32
Total	26.46	0.63	54.39	0.00		0.00	0.47		0.00	0.46	0.00	2,468.10	2,468.10	0.13	0.04	2,484.32

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					2,004.27	5.89	0.16	2,179.07
Unmitigated					2,400.51	7.36	0.20	2,618.63
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr			MT/yr				
Apartments Low Rise	37.0075 / 23.3308					371.52	1.14	0.03	405.28
Single Family Housing	202.108 / 127.416					2,028.98	6.22	0.17	2,213.34
Total						2,400.50	7.36	0.20	2,618.62

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	29.606 / 20.9977					310.20	0.91	0.03	337.25
Single Family Housing	161.686 / 114.674					1,694.08	4.98	0.14	1,841.82
Total						2,004.28	5.89	0.17	2,179.07

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					173.61	10.26	0.00	389.07
Unmitigated					578.69	34.20	0.00	1,296.89
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	261.28					53.04	3.13	0.00	118.86
Single Family Housing	2589.56					525.66	31.07	0.00	1,178.03
Total						578.70	34.20	0.00	1,296.89

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	78.384					15.91	0.94	0.00	35.66
Single Family Housing	776.868					157.70	9.32	0.00	353.41
Total						173.61	10.26	0.00	389.07

9.0 Vegetation

Granada Hills - 2030 Com Growth
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
General Office Building	4515.54	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Los Angeles Department of Water & Power
Climate Zone	11	Precipitation Freq (Days)	33		

1.3 User Entered Comments

Project Characteristics - Based on LADWP 2011 Power Integration Resource Plan dated December 22, 2011
 Land Use - Units and acerages based on project data
 Construction Phase - No construction scenario available
 Off-road Equipment - No construction
 Vehicle Trips - Based on LA GPF
 Energy Use - defaults used
 Area Mitigation -

Water Mitigation -

Waste Mitigation -

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	21.54	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.27	2.42	2.03	0.01		0.00	0.18		0.00	0.18	0.00	35,489.42	35,489.42	0.91	0.38	35,625.05
Mobile	14.79	36.58	119.78	0.43	42.37	2.08	44.45	0.67	2.03	2.70	0.00	31,634.25	31,634.25	0.98	0.00	31,654.88
Waste						0.00	0.00		0.00	0.00	852.45	0.00	852.45	50.38	0.00	1,910.40
Water						0.00	0.00		0.00	0.00	0.00	7,978.75	7,978.75	24.71	0.69	8,710.56
Total	36.60	39.00	121.81	0.44	42.37	2.08	44.63	0.67	2.03	2.88	852.45	75,102.42	75,954.87	76.98	1.07	77,900.89

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	21.54	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.27	2.42	2.03	0.01		0.00	0.18		0.00	0.18	0.00	35,489.42	35,489.42	0.91	0.38	35,625.05
Mobile	14.79	36.58	119.78	0.43	42.37	2.08	44.45	0.67	2.03	2.70	0.00	31,634.25	31,634.25	0.98	0.00	31,654.88
Waste						0.00	0.00		0.00	0.00	255.74	0.00	255.74	15.11	0.00	573.12
Water						0.00	0.00		0.00	0.00	0.00	6,656.67	6,656.67	19.77	0.55	7,243.11
Total	36.60	39.00	121.81	0.44	42.37	2.08	44.63	0.67	2.03	2.88	255.74	73,780.34	74,036.08	36.77	0.93	75,096.16

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

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	14.79	36.58	119.78	0.43	42.37	2.08	44.45	0.67	2.03	2.70	0.00	31,634.25	31,634.25	0.98	0.00	31,654.88
Unmitigated	14.79	36.58	119.78	0.43	42.37	2.08	44.45	0.67	2.03	2.70	0.00	31,634.25	31,634.25	0.98	0.00	31,654.88
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	49,716.10	10,701.83	4,425.23	78,526,303	78,526,303
Total	49,716.10	10,701.83	4,425.23	78,526,303	78,526,303

4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
General Office Building	7.00	7.00	7.00	33.00	48.00	19.00

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	32,855.65	32,855.65	0.86	0.33	32,975.26
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	32,855.65	32,855.65	0.86	0.33	32,975.26
NaturalGas Mitigated	0.27	2.42	2.03	0.01		0.00	0.18		0.00	0.18	0.00	2,633.76	2,633.76	0.05	0.05	2,649.79
NaturalGas Unmitigated	0.27	2.42	2.03	0.01		0.00	0.18		0.00	0.18	0.00	2,633.76	2,633.76	0.05	0.05	2,649.79
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	tons/yr										MT/yr					
General Office Building	4.93549e+007	0.27	2.42	2.03	0.01		0.00	0.18		0.00	0.18	0.00	2,633.76	2,633.76	0.05	0.05	2,649.79
Total		0.27	2.42	2.03	0.01		0.00	0.18		0.00	0.18	0.00	2,633.76	2,633.76	0.05	0.05	2,649.79

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	tons/yr										MT/yr					
General Office Building	4.93549e+007	0.27	2.42	2.03	0.01		0.00	0.18		0.00	0.18	0.00	2,633.76	2,633.76	0.05	0.05	2,649.79
Total		0.27	2.42	2.03	0.01		0.00	0.18		0.00	0.18	0.00	2,633.76	2,633.76	0.05	0.05	2,649.79

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	6.56108e+007					32,855.65	0.86	0.33	32,975.26
Total						32,855.65	0.86	0.33	32,975.26

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Office Building	6.56108e+007					32,855.65	0.86	0.33	32,975.26
Total						32,855.65	0.86	0.33	32,975.26

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive 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	21.54	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	21.54	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	5.23					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	16.32					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	21.55	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	5.23					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	16.32					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	21.55	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					6,656.67	19.77	0.55	7,243.11
Unmitigated					7,978.75	24.71	0.69	8,710.56
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr			MT/yr				
General Office Building	802.564 / 491.894					7,978.75	24.71	0.69	8,710.56
Total						7,978.75	24.71	0.69	8,710.56

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Office Building	642.051 / 442.705					6,656.67	19.77	0.55	7,243.11
Total						6,656.67	19.77	0.55	7,243.11

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					255.74	15.11	0.00	573.12
Unmitigated					852.45	50.38	0.00	1,910.40
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	4199.45					852.45	50.38	0.00	1,910.40
Total						852.45	50.38	0.00	1,910.40

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Office Building	1259.84					255.74	15.11	0.00	573.12
Total						255.74	15.11	0.00	573.12

9.0 Vegetation

Granada Hills -2030 Ind Growth
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Industrial Park	29.2	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Los Angeles Department of Water & Power
Climate Zone	11	Precipitation Freq (Days)	33		

1.3 User Entered Comments

Project Characteristics - Based on LADWP 2011 Power Integration Resource Plan dated December 22, 2011
 Land Use - Units and Acerages based on project data
 Construction Phase - No construction scenario available
 Off-road Equipment - No Construction
 Vehicle Trips - Based on LA GPF
 Energy Use - defaults used
 Area Mitigation -

Water Mitigation -

Waste Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.14	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	229.49	229.49	0.01	0.00	230.37
Mobile	0.06	0.16	0.51	0.00	0.18	0.01	0.19	0.00	0.01	0.01	0.00	136.25	136.25	0.00	0.00	136.33
Waste						0.00	0.00		0.00	0.00	72.95	0.00	72.95	4.31	0.00	163.49
Water						0.00	0.00		0.00	0.00	0.00	937.78	937.78	4.41	0.12	1,066.92
Total	0.20	0.18	0.52	0.00	0.18	0.01	0.19	0.00	0.01	0.01	72.95	1,303.52	1,376.47	8.73	0.12	1,597.11

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	0.14	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	229.49	229.49	0.01	0.00	230.37
Mobile	0.06	0.16	0.51	0.00	0.18	0.01	0.19	0.00	0.01	0.01	0.00	136.25	136.25	0.00	0.00	136.33
Waste						0.00	0.00		0.00	0.00	21.89	0.00	21.89	1.29	0.00	49.05
Water						0.00	0.00		0.00	0.00	0.00	750.23	750.23	3.53	0.09	853.54
Total	0.20	0.18	0.52	0.00	0.18	0.01	0.19	0.00	0.01	0.01	21.89	1,115.97	1,137.86	4.83	0.09	1,269.29

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.06	0.16	0.51	0.00	0.18	0.01	0.19	0.00	0.01	0.01	0.00	136.25	136.25	0.00	0.00	136.33
Unmitigated	0.06	0.16	0.51	0.00	0.18	0.01	0.19	0.00	0.01	0.01	0.00	136.25	136.25	0.00	0.00	136.33
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	203.23	72.71	21.32	338,555	338,555
Total	203.23	72.71	21.32	338,555	338,555

4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Industrial Park	7.00	7.00	7.00	59.00	28.00	13.00

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	212.46	212.46	0.01	0.00	213.24
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	212.46	212.46	0.01	0.00	213.24
NaturalGas Mitigated	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	17.03	17.03	0.00	0.00	17.14
NaturalGas Unmitigated	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	17.03	17.03	0.00	0.00	17.14
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	tons/yr										MT/yr					
Industrial Park	319156	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	17.03	17.03	0.00	0.00	17.14
Total		0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	17.03	17.03	0.00	0.00	17.14

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	tons/yr										MT/yr					
Industrial Park	319156	0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	17.03	17.03	0.00	0.00	17.14
Total		0.00	0.02	0.01	0.00		0.00	0.00		0.00	0.00	0.00	17.03	17.03	0.00	0.00	17.14

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Industrial Park	424276					212.46	0.01	0.00	213.24
Total						212.46	0.01	0.00	213.24

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Industrial Park	424276					212.46	0.01	0.00	213.24
Total						212.46	0.01	0.00	213.24

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive 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	0.14	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.14	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.03					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.11					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.14	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.03					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.11					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.14	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					750.23	3.53	0.09	853.54
Unmitigated					937.78	4.41	0.12	1,066.92
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Industrial Park	143.575 / 0					937.78	4.41	0.12	1,066.92
Total						937.78	4.41	0.12	1,066.92

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Industrial Park	114.86 / 0					750.23	3.53	0.09	853.54
Total						750.23	3.53	0.09	853.54

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					21.89	1.29	0.00	49.05
Unmitigated					72.95	4.31	0.00	163.49
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Industrial Park	359.38					72.95	4.31	0.00	163.49
Total						72.95	4.31	0.00	163.49

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Industrial Park	107.814					21.89	1.29	0.00	49.05
Total						21.89	1.29	0.00	49.05

9.0 Vegetation
