

# Appendices

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Appendix A



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Air Quality and Greenhouse Gas Worksheets

Appendix A-1

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Air Quality Worksheets



**Westfield Shoppingtown Escondido (Theater)**  
**San Diego County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Movie Theater (No Matinee)	50.35	1000sqft	1.16	50,350.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2017
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	720.49	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Trips and VMT - Site Specific

Demolition - 145 pounds per sf of asphalt

Grading - site specific

Vehicle Trips - Project Specific Traffic Study

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	25,175.00	27,375.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	75,525.00	82,125.00
tblAreaCoating	Area_Nonresidential_Interior	75525	82125
tblConstructionPhase	NumDays	10.00	54.00
tblConstructionPhase	NumDays	200.00	197.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	2.00	21.00
tblConstructionPhase	PhaseEndDate	2/14/2017	12/15/2016
tblConstructionPhase	PhaseEndDate	1/29/2016	1/31/2016
tblConstructionPhase	PhaseEndDate	12/30/2016	12/15/2016
tblConstructionPhase	PhaseStartDate	12/1/2016	10/1/2016
tblConstructionPhase	PhaseStartDate	12/16/2016	12/1/2016

tblGrading	MaterialExported	0.00	5,000.00
tblGrading	MaterialImported	0.00	5,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblSolidWaste	SolidWasteGenerationRate	287.00	312.07
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	8.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	10.00	30.00
tblTripsAndVMT	WorkerTripNumber	21.00	60.00
tblTripsAndVMT	WorkerTripNumber	4.00	10.00
tblVehicleTrips	ST_TR	80.00	33.41
tblVehicleTrips	SU_TR	80.00	33.41
tblVehicleTrips	WD_TR	80.00	33.41
tblWater	IndoorWaterUseRate	20,220,633.60	21,987,680.03
tblWater	OutdoorWaterUseRate	1,290,678.74	1,403,468.94





### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/15/2016	5	11	
2	Grading	Grading	1/16/2016	1/31/2016	5	10	
3	Foundation	Site Preparation	2/1/2016	2/29/2016	5	21	
4	Building Construction	Building Construction	3/1/2016	11/30/2016	5	197	
5	Architectural Coating	Architectural Coating	10/1/2016	12/15/2016	5	54	
6	Paving	Paving	12/1/2016	12/15/2016	5	11	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 15**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 82,125; Non-Residential Outdoor: 27,375 (Architectural Coating –**

## OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition		0		0	
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Rubber Tired Loaders	2	8.00	199	0.36
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Rubber Tired Loaders	1	8.00	199	0.36
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Foundation	Bore/Drill Rigs	1	8.00	205	0.50
Foundation	Cranes	1	8.00	226	0.29
Foundation	Forklifts	1	8.00	89	0.20
Foundation	Graders	0	8.00	174	0.41
Foundation	Rubber Tired Dozers	0	7.00	255	0.40
Foundation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Skid Steer Loaders	1	8.00	64	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**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	391.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	15.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	30.00	20.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	60.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	15.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Water Exposed Area

### 3.2 Demolition - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7801	0.0000	7.7801	1.1782	0.0000	1.1782						0.0000
Off-Road	3.1634	29.4733	16.7404	0.0318		1.7325	1.7325		1.6572	1.6572						3,192.2612
<b>Total</b>	<b>3.1634</b>	<b>29.4733</b>	<b>16.7404</b>	<b>0.0318</b>	<b>7.7801</b>	<b>1.7325</b>	<b>9.5126</b>	<b>1.1782</b>	<b>1.6572</b>	<b>2.8354</b>						<b>3,192.2612</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7755	10.2824	9.1861	0.0266	0.6194	0.1365	0.7558	0.1696	0.1255	0.2951						2,673.1030
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0556	0.0690	0.6519	1.4700e-003	0.1232	9.2000e-004	0.1242	0.0327	8.5000e-004	0.0335						122.4878
<b>Total</b>	<b>0.8310</b>	<b>10.3514</b>	<b>9.8380</b>	<b>0.0280</b>	<b>0.7426</b>	<b>0.1374</b>	<b>0.8800</b>	<b>0.2023</b>	<b>0.1264</b>	<b>0.3287</b>						<b>2,795.5908</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					3.5010	0.0000	3.5010	0.5302	0.0000	0.5302							0.0000
Off-Road	3.1634	29.4733	16.7404	0.0318		1.7325	1.7325		1.6572	1.6572							3,192.2612
<b>Total</b>	<b>3.1634</b>	<b>29.4733</b>	<b>16.7404</b>	<b>0.0318</b>	<b>3.5010</b>	<b>1.7325</b>	<b>5.2336</b>	<b>0.5302</b>	<b>1.6572</b>	<b>2.1874</b>							<b>3,192.2612</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.7755	10.2824	9.1861	0.0266	0.6194	0.1365	0.7558	0.1696	0.1255	0.2951							2,673.1030
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							0.0000
Worker	0.0556	0.0690	0.6519	1.4700e-003	0.1232	9.2000e-004	0.1242	0.0327	8.5000e-004	0.0335							122.4878
<b>Total</b>	<b>0.8310</b>	<b>10.3514</b>	<b>9.8380</b>	<b>0.0280</b>	<b>0.7426</b>	<b>0.1374</b>	<b>0.8800</b>	<b>0.2023</b>	<b>0.1264</b>	<b>0.3287</b>							<b>2,795.5908</b>

**3.3 Grading - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					7.7534	0.0000	7.7534	3.5033	0.0000	3.5033							0.0000
Off-Road	4.4769	51.5643	30.6813	0.0392		2.4088	2.4088		2.2161	2.2161							4,106.2120
<b>Total</b>	<b>4.4769</b>	<b>51.5643</b>	<b>30.6813</b>	<b>0.0392</b>	<b>7.7534</b>	<b>2.4088</b>	<b>10.1622</b>	<b>3.5033</b>	<b>2.2161</b>	<b>5.7194</b>							<b>4,106.2120</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3635	18.0796	16.1520	0.0467	1.0890	0.2400	1.3290	0.2982	0.2207	0.5189						4,700.1491
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0556	0.0690	0.6519	1.4700e-003	0.1232	9.2000e-004	0.1242	0.0327	8.5000e-004	0.0335						122.4878
<b>Total</b>	<b>1.4191</b>	<b>18.1487</b>	<b>16.8039</b>	<b>0.0482</b>	<b>1.2122</b>	<b>0.2409</b>	<b>1.4531</b>	<b>0.3309</b>	<b>0.2216</b>	<b>0.5525</b>						<b>4,822.6369</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4890	0.0000	3.4890	1.5765	0.0000	1.5765						0.0000
Off-Road	4.4769	51.5643	30.6813	0.0392		2.4088	2.4088		2.2161	2.2161						4,106.2120
<b>Total</b>	<b>4.4769</b>	<b>51.5643</b>	<b>30.6813</b>	<b>0.0392</b>	<b>3.4890</b>	<b>2.4088</b>	<b>5.8978</b>	<b>1.5765</b>	<b>2.2161</b>	<b>3.7926</b>						<b>4,106.2120</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3635	18.0796	16.1520	0.0467	1.0890	0.2400	1.3290	0.2982	0.2207	0.5189						4,700.1491
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	0.0556	0.0690	0.6519	1.4700e-003	0.1232	9.2000e-004	0.1242	0.0327	8.5000e-004	0.0335						122.4878
<b>Total</b>	<b>1.4191</b>	<b>18.1487</b>	<b>16.8039</b>	<b>0.0482</b>	<b>1.2122</b>	<b>0.2409</b>	<b>1.4531</b>	<b>0.3309</b>	<b>0.2216</b>	<b>0.5525</b>						<b>4,822.6369</b>

### 3.4 Foundation - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	1.6356	18.9863	8.7087	0.0190		0.9551	0.9551		0.8787	0.8787						1,988.8952
<b>Total</b>	<b>1.6356</b>	<b>18.9863</b>	<b>8.7087</b>	<b>0.0190</b>	<b>0.0000</b>	<b>0.9551</b>	<b>0.9551</b>	<b>0.0000</b>	<b>0.8787</b>	<b>0.8787</b>						<b>1,988.8952</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.2414	1.9414	2.9942	4.7400e-003	0.1328	0.0290	0.1617	0.0379	0.0266	0.0645						473.5978
Worker	0.1112	0.1381	1.3039	2.9300e-003	0.2464	1.8500e-003	0.2483	0.0654	1.7000e-003	0.0671						244.9756
<b>Total</b>	<b>0.3525</b>	<b>2.0795</b>	<b>4.2981</b>	<b>7.6700e-003</b>	<b>0.3792</b>	<b>0.0308</b>	<b>0.4100</b>	<b>0.1032</b>	<b>0.0283</b>	<b>0.1316</b>						<b>718.5734</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Off-Road	1.6356	18.9863	8.7087	0.0190		0.9551	0.9551		0.8787	0.8787						1,988.8952
<b>Total</b>	<b>1.6356</b>	<b>18.9863</b>	<b>8.7087</b>	<b>0.0190</b>	<b>0.0000</b>	<b>0.9551</b>	<b>0.9551</b>	<b>0.0000</b>	<b>0.8787</b>	<b>0.8787</b>						<b>1,988.8952</b>











## 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	lb/day										lb/day					
Mitigated	5.6712	10.2750	50.4436	0.0959	6.7024	0.1257	6.8281	1.7892	0.1157	1.9049						8,103.8049
Unmitigated	5.6712	10.2750	50.4436	0.0959	6.7024	0.1257	6.8281	1.7892	0.1157	1.9049						8,103.8049

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Movie Theater (No Matinee)	1,682.19	1,682.19	1,682.19	3,167,566	3,167,566
Total	1,682.19	1,682.19	1,682.19	3,167,566	3,167,566

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %					
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by			
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17			
LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468





**Westfield Shoppingtown Escondido (Theater)**  
**San Diego County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Movie Theater (No Matinee)	50.35	1000sqft	1.16	50,350.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2017
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Site Specific

Off-road Equipment - Site Specific

Trips and VMT - Site Specific

Demolition - 145 pounds per sf of asphalt

Grading - site specific

Vehicle Trips - Project Specific Traffic Study

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
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tblArchitecturalCoating	ConstArea_Nonresidential_Interior	75,525.00	82,125.00
tblAreaCoating	Area_Nonresidential_Interior	75525	82125
tblConstructionPhase	NumDays	10.00	54.00
tblConstructionPhase	NumDays	200.00	197.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	2.00	21.00
tblConstructionPhase	PhaseEndDate	2/14/2017	12/15/2016
tblConstructionPhase	PhaseEndDate	1/29/2016	1/31/2016
tblConstructionPhase	PhaseEndDate	12/30/2016	12/15/2016
tblConstructionPhase	PhaseStartDate	12/1/2016	10/1/2016
tblConstructionPhase	PhaseStartDate	12/16/2016	12/1/2016

tblGrading	MaterialExported	0.00	5,000.00
tblGrading	MaterialImported	0.00	5,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblSolidWaste	SolidWasteGenerationRate	287.00	312.07
tblTripsAndVMT	VendorTripNumber	0.00	20.00
tblTripsAndVMT	VendorTripNumber	8.00	15.00
tblTripsAndVMT	VendorTripNumber	0.00	15.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblTripsAndVMT	WorkerTripNumber	10.00	30.00
tblTripsAndVMT	WorkerTripNumber	21.00	60.00
tblTripsAndVMT	WorkerTripNumber	4.00	10.00
tblVehicleTrips	ST_TR	80.00	33.41
tblVehicleTrips	SU_TR	80.00	33.41
tblVehicleTrips	WD_TR	80.00	33.41
tblWater	IndoorWaterUseRate	20,220,633.60	21,987,680.03
tblWater	OutdoorWaterUseRate	1,290,678.74	1,403,468.94

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.1197	3.4860	2.7185	4.6200e-003	0.1558	0.2014	0.3572	0.0440	0.1921	0.2362						400.2274
<b>Total</b>	<b>1.1197</b>	<b>3.4860</b>	<b>2.7185</b>	<b>4.6200e-003</b>	<b>0.1558</b>	<b>0.2014</b>	<b>0.3572</b>	<b>0.0440</b>	<b>0.1921</b>	<b>0.2362</b>						<b>400.2274</b>

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	1.1197	3.4860	2.7185	4.6200e-003	0.1109	0.2014	0.3123	0.0308	0.1921	0.2230						400.2270
<b>Total</b>	<b>1.1197</b>	<b>3.4860</b>	<b>2.7185</b>	<b>4.6200e-003</b>	<b>0.1109</b>	<b>0.2014</b>	<b>0.3123</b>	<b>0.0308</b>	<b>0.1921</b>	<b>0.2230</b>						<b>400.2270</b>

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>28.80</b>	<b>0.00</b>	<b>12.56</b>	<b>29.99</b>	<b>0.00</b>	<b>5.59</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### 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	0.2589	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004
Energy	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003						180.4718
Mobile	0.9612	1.8620	8.8510	0.0176	1.1912	0.0228	1.2139	0.3186	0.0210	0.3396						1,347.5166
Waste						0.0000	0.0000		0.0000	0.0000						141.9656
Water						0.0000	0.0000		0.0000	0.0000						126.2657

Total	1.2233	1.8911	8.8759	0.0178	1.1912	0.0250	1.2161	0.3186	0.0232	0.3418						1,796.2206
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### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/15/2016	5	11	
2	Grading	Grading	1/16/2016	1/31/2016	5	10	
3	Foundation	Site Preparation	2/1/2016	2/29/2016	5	21	
4	Building Construction	Building Construction	3/1/2016	11/30/2016	5	197	
5	Architectural Coating	Architectural Coating	10/1/2016	12/15/2016	5	54	
6	Paving	Paving	12/1/2016	12/15/2016	5	11	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 15**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 82,125; Non-Residential Outdoor: 27,375 (Architectural Coating –**

## OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition		0		0	
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Rubber Tired Loaders	2	8.00	199	0.36
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Rubber Tired Loaders	1	8.00	199	0.36
Grading	Scrapers	1	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Foundation	Bore/Drill Rigs	1	8.00	205	0.50
Foundation	Cranes	1	8.00	226	0.29
Foundation	Forklifts	1	8.00	89	0.20
Foundation	Graders	0	8.00	174	0.41
Foundation	Rubber Tired Dozers	0	7.00	255	0.40
Foundation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Skid Steer Loaders	1	8.00	64	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37



















## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Movie Theater (No Matinee)	1,682.19	1,682.19	1,682.19	3,167,566	3,167,566
<b>Total</b>	<b>1,682.19</b>	<b>1,682.19</b>	<b>1,682.19</b>	<b>3,167,566</b>	<b>3,167,566</b>

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %					
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by			
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17			
LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

Exceed Title 24

Category	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
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						141.2699
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						148.6009
NaturalGas Mitigated	2.8300e-003	0.0257	0.0216	1.5000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003						28.1892
NaturalGas Unmitigated	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003						31.8710

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

Land Use	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
	kBTU/yr	tons/yr										MT/yr					
Movie Theater (No Matinee)	593627	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003						31.8710
<b>Total</b>		<b>3.2000e-003</b>	<b>0.0291</b>	<b>0.0244</b>	<b>1.7000e-004</b>		<b>2.2100e-003</b>	<b>2.2100e-003</b>		<b>2.2100e-003</b>	<b>2.2100e-003</b>						<b>31.8710</b>

**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						
Movie Theater (No Matinee)	525050	2.8300e-003	0.0257	0.0216	1.5000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003							28.1892
<b>Total</b>		<b>2.8300e-003</b>	<b>0.0257</b>	<b>0.0216</b>	<b>1.5000e-004</b>		<b>1.9600e-003</b>	<b>1.9600e-003</b>		<b>1.9600e-003</b>	<b>1.9600e-003</b>							<b>28.1892</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Movie Theater (No Matinee)	453150				148.6009
<b>Total</b>					<b>148.6009</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Movie Theater (No Matinee)	430795				141.2699
<b>Total</b>					<b>141.2699</b>

## 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	0.2589	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004
Unmitigated	0.2589	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004

### 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	0.0622					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.1966					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004
<b>Total</b>	<b>0.2589</b>	<b>0.0000</b>	<b>4.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>						<b>9.5000e-004</b>

#### 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	0.0622					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.1966					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	5.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004
<b>Total</b>	<b>0.2589</b>	<b>0.0000</b>	<b>4.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>						<b>9.5000e-004</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				126.2545
Unmitigated				126.2657

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Movie Theater (No Matinee)	21.9877 / 1.40347				126.2657
<b>Total</b>					<b>126.2657</b>

#### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Movie Theater (No Matinee)	21.9877 / 1.40347				126.2545
<b>Total</b>					<b>126.2545</b>

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				141.9656
Unmitigated				141.9656

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Movie Theater (No Matinee)	312.07				141.9656
<b>Total</b>					<b>141.9656</b>

#### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Movie Theater (No Matinee)	312.07				141.9656
<b>Total</b>					<b>141.9656</b>

Appendix A-2

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Greenhouse Gas Worksheets



**Westfield Shoppingtown Escondido (Theater) BAU**  
**San Diego County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Movie Theater (No Matinee)	50.35	1000sqft	1.16	50,350.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

- Construction Phase - Site Specific
- Off-road Equipment - Site Specific
- Trips and VMT - Site Specific
- Demolition - 145 pounds per sf of asphalt
- Grading - site specific
- Vehicle Trips - Project Specific Traffic Study





### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Foundation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 1.5**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 82,125; Non-Residential Outdoor: 27,375 (Architectural Coating –**

## OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Foundation	Graders	1	8.00	174	0.41
Foundation	Rubber Tired Dozers	1	7.00	255	0.40
Foundation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

## Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	391.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT



















## 5.2 Energy by Land Use - Natural Gas

### Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
Movie Theater (No Matinee)	593627																	31.8710
<b>Total</b>																		<b>31.8710</b>

### 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						
Movie Theater (No Matinee)	593627																	31.8710
<b>Total</b>																		<b>31.8710</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Movie Theater (No Matinee)	453150				148.6009
<b>Total</b>					<b>148.6009</b>

### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Movie Theater (No Matinee)	453150				148.6009
<b>Total</b>					<b>148.6009</b>

## 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																	9.5000e-004
Unmitigated																	9.5000e-004

### 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																	0.0000
Consumer Products																	0.0000
Landscaping																	9.5000e-004
<b>Total</b>																	<b>9.5000e-004</b>

#### 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																	0.0000
Consumer Products																	0.0000
Landscaping																	9.5000e-004
<b>Total</b>																	<b>9.5000e-004</b>

## 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated				116.1183

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Movie Theater (No Matinee)	20.2206 / 1.29068				116.1183
<b>Total</b>					<b>116.1183</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Movie Theater (No Matinee)	20.2206 / 1.29068				116.1080
<b>Total</b>					<b>116.1080</b>

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				130.5608
Unmitigated				130.5608

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Movie Theater (No Matinee)	287				130.5608
<b>Total</b>					<b>130.5608</b>

#### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Movie Theater (No Matinee)	287				130.5608
<b>Total</b>					<b>130.5608</b>

**Westfield Shoppingtown Escondido (Theater)**  
**San Diego County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Movie Theater (No Matinee)	50.35	1000sqft	1.16	50,350.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

- Construction Phase - Site Specific
- Off-road Equipment - Site Specific
- Trips and VMT - Site Specific
- Demolition - 145 pounds per sf of asphalt
- Grading - site specific
- Vehicle Trips - Project Specific Traffic Study





### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Foundation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	11/12/2016	11/25/2016	5	10	
6	Architectural Coating	Architectural Coating	11/26/2016	12/9/2016	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 1.5**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 82,125; Non-Residential Outdoor: 27,375 (Architectural Coating –**

## OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Foundation	Graders	1	8.00	174	0.41
Foundation	Rubber Tired Dozers	1	7.00	255	0.40
Foundation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

## Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	391.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT



### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0900e-003	0.0568	0.0468	1.5000e-004	3.3400e-003	7.5000e-004	4.0900e-003	9.2000e-004	6.9000e-004	1.6000e-003						13.3557
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	4.5000e-004	5.9000e-004	5.6100e-003	1.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004						0.9726
<b>Total</b>	<b>4.5400e-003</b>	<b>0.0574</b>	<b>0.0524</b>	<b>1.6000e-004</b>	<b>4.3800e-003</b>	<b>7.6000e-004</b>	<b>5.1400e-003</b>	<b>1.2000e-003</b>	<b>7.0000e-004</b>	<b>1.8800e-003</b>						<b>14.3282</b>

### 3.3 Foundation - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003						0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003						1.6260
<b>Total</b>	<b>2.4400e-003</b>	<b>0.0258</b>	<b>0.0165</b>	<b>2.0000e-005</b>	<b>5.8000e-003</b>	<b>1.4000e-003</b>	<b>7.2000e-003</b>	<b>2.9500e-003</b>	<b>1.2900e-003</b>	<b>4.2400e-003</b>						<b>1.6260</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0.0000
Worker	3.0000e-005	4.0000e-005	3.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005						0.0599
<b>Total</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>						<b>0.0599</b>

#### Mitigated Construction On-Site













## 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	0.8106	1.4528	7.2662	0.0176	1.1911	0.0207	1.2118	0.3186	0.0191	0.3376						1,219.1419
Unmitigated	0.8106	1.4528	7.2662	0.0176	1.1911	0.0207	1.2118	0.3186	0.0191	0.3376						1,219.1419

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Movie Theater (No Matinee)	1,682.19	1,682.19	1,682.19	3,167,566	3,167,566
Total	1,682.19	1,682.19	1,682.19	3,167,566	3,167,566

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %					
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by			
Movie Theater (No Matinee)	9.50	7.30	7.30	1.80	79.20	19.00	66	17	17			
LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.513300	0.073549	0.191092	0.130830	0.036094	0.005140	0.012550	0.022916	0.001871	0.002062	0.006564	0.000586	0.003446

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Exceed Title 24

	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						141.2699
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						148.6009
Natural Gas Mitigated	2.8300e-003	0.0257	0.0216	1.5000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003						28.1892
Natural Gas Unmitigated	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003						31.8710

## 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					
Movie Theater (No Matinee)	593627	3.2000e-003	0.0291	0.0244	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003						31.8710
<b>Total</b>		<b>3.2000e-003</b>	<b>0.0291</b>	<b>0.0244</b>	<b>1.7000e-004</b>		<b>2.2100e-003</b>	<b>2.2100e-003</b>		<b>2.2100e-003</b>	<b>2.2100e-003</b>						<b>31.8710</b>

### 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					
Movie Theater (No Matinee)	525050	2.8300e-003	0.0257	0.0216	1.5000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003						28.1892
<b>Total</b>		<b>2.8300e-003</b>	<b>0.0257</b>	<b>0.0216</b>	<b>1.5000e-004</b>		<b>1.9600e-003</b>	<b>1.9600e-003</b>		<b>1.9600e-003</b>	<b>1.9600e-003</b>						<b>28.1892</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Movie Theater (No Matinee)	453150				148.6009
<b>Total</b>					<b>148.6009</b>

### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Movie Theater (No Matinee)	430795				141.2699
<b>Total</b>					<b>141.2699</b>

## 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	0.2589	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004
Unmitigated	0.2589	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004

### 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	0.0622					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.1966					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	4.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004
<b>Total</b>	<b>0.2589</b>	<b>0.0000</b>	<b>4.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>						<b>9.5000e-004</b>

#### 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	0.0622					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.1966					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	4.0000e-005	0.0000	4.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000						9.5000e-004
<b>Total</b>	<b>0.2589</b>	<b>0.0000</b>	<b>4.7000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>						<b>9.5000e-004</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				90.4972
Unmitigated				116.1183

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Movie Theater (No Matinee)	20.2206 / 1.29068				116.1183
<b>Total</b>					<b>116.1183</b>

#### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Movie Theater (No Matinee)	16.1765 / 1.03254				90.4972
<b>Total</b>					<b>90.4972</b>

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				130.5608
Unmitigated				130.5608

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Movie Theater (No Matinee)	287				130.5608
<b>Total</b>					<b>130.5608</b>

#### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Movie Theater (No Matinee)	287				130.5608
<b>Total</b>					<b>130.5608</b>