

# **Appendix B**

**Air Quality Model Outputs**

CM Residence Inn - Construction Only - Marin County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

CM Residence Inn - Construction Only

Marin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	149.00	Room	4.97	216,348.00	0
Parking Lot	169.00	Space	1.52	67,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	69
Climate Zone	5			Operational Year	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction-Only Run  
 Land Use - 149-Room Hotel with 169 Parking Spaces  
 Construction Phase - Default Phasing and Durations. 2nd Demo Added for Pavement  
 Off-road Equipment - Default Equipment and Activity  
 Grading -  
 Demolition - 79,000 sf Building, 1,500 tons of Pavement  
 Off-road Equipment - 1 Add'l Concrete/Industrial Saw Added for Pavement Demo

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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**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					
2021	0.0366	0.3611	0.2609	5.1000e-004	0.0187	0.0175	0.0362	3.1500e-003	0.0163	0.0195	0.0000	45.5740	45.5740	0.0102	8.3000e-004	46.0787
2022	0.1453	1.3637	1.2292	2.7300e-003	0.2608	0.0617	0.3225	0.1050	0.0576	0.1626	0.0000	245.0245	245.0245	0.0475	8.2400e-003	248.6666
2023	1.3102	1.4203	1.6963	3.7700e-003	0.0996	0.0614	0.1609	0.0270	0.0577	0.0848	0.0000	338.6426	338.6426	0.0541	0.0124	343.7008
<b>Maximum</b>	<b>1.3102</b>	<b>1.4203</b>	<b>1.6963</b>	<b>3.7700e-003</b>	<b>0.2608</b>	<b>0.0617</b>	<b>0.3225</b>	<b>0.1050</b>	<b>0.0577</b>	<b>0.1626</b>	<b>0.0000</b>	<b>338.6426</b>	<b>338.6426</b>	<b>0.0541</b>	<b>0.0124</b>	<b>343.7008</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	1. Demolition Building	Demolition	7/11/2022	8/5/2022	5	20	
2	2. Demolition Pavement	Demolition	8/1/2021	8/27/2021	5	20	
3	3. Site Preparation	Site Preparation	8/6/2022	8/19/2022	5	10	
4	4. Grading	Grading	8/20/2022	9/16/2022	5	20	
5	5. Building Construction	Building Construction	9/17/2022	8/4/2023	5	230	
6	6. Paving	Paving	8/5/2023	9/1/2023	5	20	
7	7. Architectural Coating	Architectural Coating	9/2/2023	9/29/2023	5	20	

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

**Acres of Grading (Grading Phase): 20**

**Acres of Paving: 1.52**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 324,522; Non-Residential Outdoor: 108,174; Striped Parking Area: 4,056**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
1. Demolition Building	Concrete/Industrial Saws	1	8.00	81	0.73
1. Demolition Building	Excavators	3	8.00	158	0.38
1. Demolition Building	Rubber Tired Dozers	2	8.00	247	0.40
2. Demolition Pavement	Concrete/Industrial Saws	2	8.00	81	0.73
2. Demolition Pavement	Excavators	3	8.00	158	0.38
2. Demolition Pavement	Rubber Tired Dozers	2	8.00	247	0.40
3. Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
3. Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
4. Grading	Excavators	1	8.00	158	0.38
4. Grading	Graders	1	8.00	187	0.41
4. Grading	Rubber Tired Dozers	1	8.00	247	0.40
4. Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
5. Building Construction	Cranes	1	7.00	231	0.29
5. Building Construction	Forklifts	3	8.00	89	0.20
5. Building Construction	Generator Sets	1	8.00	84	0.74
5. Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
5. Building Construction	Welders	1	8.00	46	0.45
6. Paving	Pavers	2	8.00	130	0.42
6. Paving	Paving Equipment	2	8.00	132	0.36
6. Paving	Rollers	2	8.00	80	0.38
7. Architectural Coating	Air Compressors	1	6.00	78	0.48

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**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
1. Demolition Building	6	15.00	0.00	359.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
3. Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
4. Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
5. Building Construction	9	119.00	47.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
6. Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
7. Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2. Demolition Pavement	7	18.00	0.00	148.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 1. Demolition Building - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0389	0.0000	0.0389	5.8900e-003	0.0000	5.8900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
<b>Total</b>	<b>0.0264</b>	<b>0.2572</b>	<b>0.2059</b>	<b>3.9000e-004</b>	<b>0.0389</b>	<b>0.0124</b>	<b>0.0513</b>	<b>5.8900e-003</b>	<b>0.0116</b>	<b>0.0174</b>	<b>0.0000</b>	<b>33.9902</b>	<b>33.9902</b>	<b>9.5500e-003</b>	<b>0.0000</b>	<b>34.2289</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	8.4000e-004	0.0335	8.4300e-003	1.2000e-004	3.0300e-003	2.7000e-004	3.3000e-003	8.3000e-004	2.6000e-004	1.0900e-003	0.0000	11.8267	11.8267	7.5000e-004	1.8800e-003	12.4070
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.1000e-004	3.5100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9641	0.9641	3.0000e-005	3.0000e-005	0.9733
<b>Total</b>	<b>1.2900e-003</b>	<b>0.0338</b>	<b>0.0119</b>	<b>1.3000e-004</b>	<b>4.2100e-003</b>	<b>2.8000e-004</b>	<b>4.4900e-003</b>	<b>1.1400e-003</b>	<b>2.7000e-004</b>	<b>1.4100e-003</b>	<b>0.0000</b>	<b>12.7907</b>	<b>12.7907</b>	<b>7.8000e-004</b>	<b>1.9100e-003</b>	<b>13.3803</b>

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3.3 2. Demolition Pavement - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0161	0.0000	0.0161	2.4300e-003	0.0000	2.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0355	0.3448	0.2524	4.5000e-004		0.0172	0.0172		0.0161	0.0161	0.0000	39.3774	39.3774	9.8800e-003	0.0000	39.6244
<b>Total</b>	<b>0.0355</b>	<b>0.3448</b>	<b>0.2524</b>	<b>4.5000e-004</b>	<b>0.0161</b>	<b>0.0172</b>	<b>0.0333</b>	<b>2.4300e-003</b>	<b>0.0161</b>	<b>0.0186</b>	<b>0.0000</b>	<b>39.3774</b>	<b>39.3774</b>	<b>9.8800e-003</b>	<b>0.0000</b>	<b>39.6244</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	5.2000e-004	0.0159	3.9200e-003	5.0000e-005	1.2500e-003	1.9000e-004	1.4400e-003	3.4000e-004	1.9000e-004	5.3000e-004	0.0000	5.0092	5.0092	3.2000e-004	8.0000e-004	5.2549
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.2000e-004	4.5700e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1875	1.1875	4.0000e-005	4.0000e-005	1.1995
<b>Total</b>	<b>1.1000e-003</b>	<b>0.0163</b>	<b>8.4900e-003</b>	<b>6.0000e-005</b>	<b>2.6700e-003</b>	<b>2.0000e-004</b>	<b>2.8700e-003</b>	<b>7.2000e-004</b>	<b>2.0000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>6.1966</b>	<b>6.1966</b>	<b>3.6000e-004</b>	<b>8.4000e-004</b>	<b>6.4543</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 3. Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
<b>Total</b>	<b>0.0159</b>	<b>0.1654</b>	<b>0.0985</b>	<b>1.9000e-004</b>	<b>0.0983</b>	<b>8.0600e-003</b>	<b>0.1064</b>	<b>0.0505</b>	<b>7.4200e-003</b>	<b>0.0579</b>	<b>0.0000</b>	<b>16.7197</b>	<b>16.7197</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8549</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	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	1.9000e-004	2.1000e-003	1.0000e-005	7.1000e-004	0.0000	7.1000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5784	0.5784	2.0000e-005	2.0000e-005	0.5840
<b>Total</b>	<b>2.7000e-004</b>	<b>1.9000e-004</b>	<b>2.1000e-003</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>7.1000e-004</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.5784</b>	<b>0.5784</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.5840</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 4. Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654
<b>Total</b>	<b>0.0195</b>	<b>0.2086</b>	<b>0.1527</b>	<b>3.0000e-004</b>	<b>0.0708</b>	<b>9.4100e-003</b>	<b>0.0802</b>	<b>0.0343</b>	<b>8.6600e-003</b>	<b>0.0429</b>	<b>0.0000</b>	<b>26.0548</b>	<b>26.0548</b>	<b>8.4300e-003</b>	<b>0.0000</b>	<b>26.2654</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	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.1000e-004	3.5100e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9641	0.9641	3.0000e-005	3.0000e-005	0.9733
<b>Total</b>	<b>4.5000e-004</b>	<b>3.1000e-004</b>	<b>3.5100e-003</b>	<b>1.0000e-005</b>	<b>1.1800e-003</b>	<b>1.0000e-005</b>	<b>1.1900e-003</b>	<b>3.1000e-004</b>	<b>1.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>0.9641</b>	<b>0.9641</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.9733</b>

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3.6 5. Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0640	0.5856	0.6136	1.0100e-003		0.0303	0.0303		0.0285	0.0285	0.0000	86.8970	86.8970	0.0208	0.0000	87.4174
<b>Total</b>	<b>0.0640</b>	<b>0.5856</b>	<b>0.6136</b>	<b>1.0100e-003</b>		<b>0.0303</b>	<b>0.0303</b>		<b>0.0285</b>	<b>0.0285</b>	<b>0.0000</b>	<b>86.8970</b>	<b>86.8970</b>	<b>0.0208</b>	<b>0.0000</b>	<b>87.4174</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	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.3100e-003	0.1035	0.0365	3.9000e-004	0.0115	1.0000e-003	0.0125	3.3400e-003	9.6000e-004	4.3000e-003	0.0000	38.3486	38.3486	1.5200e-003	5.4400e-003	40.0078
Worker	0.0133	9.2100e-003	0.1043	3.1000e-004	0.0352	2.0000e-004	0.0354	9.3500e-003	1.8000e-004	9.5400e-003	0.0000	28.6810	28.6810	9.0000e-004	8.4000e-004	28.9547
<b>Total</b>	<b>0.0176</b>	<b>0.1127</b>	<b>0.1408</b>	<b>7.0000e-004</b>	<b>0.0467</b>	<b>1.2000e-003</b>	<b>0.0479</b>	<b>0.0127</b>	<b>1.1400e-003</b>	<b>0.0138</b>	<b>0.0000</b>	<b>67.0296</b>	<b>67.0296</b>	<b>2.4200e-003</b>	<b>6.2800e-003</b>	<b>68.9625</b>

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3.6 5. Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1219	1.1148	1.2589	2.0900e-003		0.0542	0.0542		0.0510	0.0510	0.0000	179.6487	179.6487	0.0427	0.0000	180.7171
<b>Total</b>	<b>0.1219</b>	<b>1.1148</b>	<b>1.2589</b>	<b>2.0900e-003</b>		<b>0.0542</b>	<b>0.0542</b>		<b>0.0510</b>	<b>0.0510</b>	<b>0.0000</b>	<b>179.6487</b>	<b>179.6487</b>	<b>0.0427</b>	<b>0.0000</b>	<b>180.7171</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	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0000e-003	0.1729	0.0653	7.7000e-004	0.0238	9.5000e-004	0.0248	6.9000e-003	9.1000e-004	7.8000e-003	0.0000	76.1905	76.1905	2.9400e-003	0.0108	79.4696
Worker	0.0257	0.0169	0.1997	6.2000e-004	0.0727	3.9000e-004	0.0730	0.0193	3.6000e-004	0.0197	0.0000	57.7799	57.7799	1.6900e-003	1.6100e-003	58.3028
<b>Total</b>	<b>0.0307</b>	<b>0.1898</b>	<b>0.2650</b>	<b>1.3900e-003</b>	<b>0.0965</b>	<b>1.3400e-003</b>	<b>0.0978</b>	<b>0.0262</b>	<b>1.2700e-003</b>	<b>0.0275</b>	<b>0.0000</b>	<b>133.9704</b>	<b>133.9704</b>	<b>4.6300e-003</b>	<b>0.0124</b>	<b>137.7723</b>

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 6. Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	1.9900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0123</b>	<b>0.1019</b>	<b>0.1458</b>	<b>2.3000e-004</b>		<b>5.1000e-003</b>	<b>5.1000e-003</b>		<b>4.6900e-003</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>20.0269</b>	<b>20.0269</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1888</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	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.7000e-004	3.2500e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9398	0.9398	3.0000e-005	3.0000e-005	0.9483
<b>Total</b>	<b>4.2000e-004</b>	<b>2.7000e-004</b>	<b>3.2500e-003</b>	<b>1.0000e-005</b>	<b>1.1800e-003</b>	<b>1.0000e-005</b>	<b>1.1900e-003</b>	<b>3.1000e-004</b>	<b>1.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>0.9398</b>	<b>0.9398</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.9483</b>

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.8 7. Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1422					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
<b>Total</b>	<b>1.1441</b>	<b>0.0130</b>	<b>0.0181</b>	<b>3.0000e-005</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>2.5571</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	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	4.4000e-004	5.2000e-003	2.0000e-005	1.8900e-003	1.0000e-005	1.9000e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.5036	1.5036	4.0000e-005	4.0000e-005	1.5172
<b>Total</b>	<b>6.7000e-004</b>	<b>4.4000e-004</b>	<b>5.2000e-003</b>	<b>2.0000e-005</b>	<b>1.8900e-003</b>	<b>1.0000e-005</b>	<b>1.9000e-003</b>	<b>5.0000e-004</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.5036</b>	<b>1.5036</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>1.5172</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**CM Residence Inn - Existing  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	110.00	Room	3.67	159,720.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	69
<b>Climate Zone</b>	5			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

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

Project Characteristics - Existing Development, PG&E 2019 Carbon Intensity factor

Land Use - Existing 110-Room Hotel

Construction Phase - Operation Only

Energy Use - Historic (Older) Energy Consumption/Title 24 Standards

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	0	2.68

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**2.0 Emissions Summary**

**2.1 Overall Construction**

Not Applicable

**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	0.7072	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9700e-003	1.9700e-003	1.0000e-005	0.0000	2.0900e-003
Energy	0.0335	0.3048	0.2560	1.8300e-003		0.0232	0.0232		0.0232	0.0232	0.0000	333.6786	333.6786	6.3600e-003	6.0800e-003	335.6504
Mobile	0.3574	0.3305	3.0270	5.7200e-003	0.6124	4.3400e-003	0.6168	0.1635	4.0300e-003	0.1675	0.0000	536.3022	536.3022	0.0397	0.0256	544.9300
Waste						0.0000	0.0000		0.0000	0.0000	12.2262	0.0000	12.2262	0.7225	0.0000	30.2898
Water						0.0000	0.0000		0.0000	0.0000	0.8853	0.0197	0.9049	0.0909	2.1500e-003	3.8178
<b>Total</b>	<b>1.0981</b>	<b>0.6353</b>	<b>3.2841</b>	<b>7.5500e-003</b>	<b>0.6124</b>	<b>0.0275</b>	<b>0.6399</b>	<b>0.1635</b>	<b>0.0272</b>	<b>0.1907</b>	<b>13.1114</b>	<b>870.0025</b>	<b>883.1139</b>	<b>0.8595</b>	<b>0.0339</b>	<b>914.6901</b>

**3.0 Construction Detail**

Not Applicable

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.3574	0.3305	3.0270	5.7200e-003	0.6124	4.3400e-003	0.6168	0.1635	4.0300e-003	0.1675	0.0000	536.3022	536.3022	0.0397	0.0256	544.9300
Unmitigated	0.3574	0.3305	3.0270	5.7200e-003	0.6124	4.3400e-003	0.6168	0.1635	4.0300e-003	0.1675	0.0000	536.3022	536.3022	0.0397	0.0256	544.9300

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	919.60	900.90	654.50	1,670,148	1,670,148
Total	919.60	900.90	654.50	1,670,148	1,670,148

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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.540731	0.061602	0.202834	0.122898	0.023958	0.005433	0.006645	0.003685	0.000662	0.000406	0.027616	0.000722	0.002809



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5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.8678	1.8678	0.0000	0.0000	1.8678
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.8678	1.8678	0.0000	0.0000	1.8678
NaturalGas Mitigated	0.0335	0.3048	0.2560	1.8300e-003		0.0232	0.0232		0.0232	0.0232	0.0000	331.8108	331.8108	6.3600e-003	6.0800e-003	333.7826
NaturalGas Unmitigated	0.0335	0.3048	0.2560	1.8300e-003		0.0232	0.0232		0.0232	0.0232	0.0000	331.8108	331.8108	6.3600e-003	6.0800e-003	333.7826

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					
Hotel	6.2179e+06	0.0335	0.3048	0.2560	1.8300e-003		0.0232	0.0232		0.0232	0.0232	0.0000	331.8108	331.8108	6.3600e-003	6.0800e-003	333.7826
<b>Total</b>		<b>0.0335</b>	<b>0.3048</b>	<b>0.2560</b>	<b>1.8300e-003</b>		<b>0.0232</b>	<b>0.0232</b>		<b>0.0232</b>	<b>0.0232</b>	<b>0.0000</b>	<b>331.8108</b>	<b>331.8108</b>	<b>6.3600e-003</b>	<b>6.0800e-003</b>	<b>333.7826</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					
Hotel	6.2179e+06	0.0335	0.3048	0.2560	1.8300e-003		0.0232	0.0232		0.0232	0.0232	0.0000	331.8108	331.8108	6.3600e-003	6.0800e-003	333.7826
<b>Total</b>		<b>0.0335</b>	<b>0.3048</b>	<b>0.2560</b>	<b>1.8300e-003</b>		<b>0.0232</b>	<b>0.0232</b>		<b>0.0232</b>	<b>0.0232</b>	<b>0.0000</b>	<b>331.8108</b>	<b>331.8108</b>	<b>6.3600e-003</b>	<b>6.0800e-003</b>	<b>333.7826</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.53651e+006	1.8678	0.0000	0.0000	1.8678
<b>Total</b>		<b>1.8678</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.8678</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.53651e+006	1.8678	0.0000	0.0000	1.8678
<b>Total</b>		<b>1.8678</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.8678</b>

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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	0.7072	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9700e-003	1.9700e-003	1.0000e-005	0.0000	2.0900e-003
Unmitigated	0.7072	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9700e-003	1.9700e-003	1.0000e-005	0.0000	2.0900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0833					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6238					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9700e-003	1.9700e-003	1.0000e-005	0.0000	2.0900e-003
<b>Total</b>	<b>0.7072</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.9700e-003</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.0900e-003</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	0.0833					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6238					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.9700e-003	1.9700e-003	1.0000e-005	0.0000	2.0900e-003
<b>Total</b>	<b>0.7072</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.9700e-003</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.0900e-003</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.9049	0.0909	2.1500e-003	3.8178
Unmitigated	0.9049	0.0909	2.1500e-003	3.8178

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	2.79034 / 0.310038	0.9049	0.0909	2.1500e-003	3.8178
<b>Total</b>		<b>0.9049</b>	<b>0.0909</b>	<b>2.1500e-003</b>	<b>3.8178</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	2.79034 / 0.310038	0.9049	0.0909	2.1500e-003	3.8178
<b>Total</b>		<b>0.9049</b>	<b>0.0909</b>	<b>2.1500e-003</b>	<b>3.8178</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.2262	0.7225	0.0000	30.2898
Unmitigated	12.2262	0.7225	0.0000	30.2898

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	60.23	12.2262	0.7225	0.0000	30.2898
<b>Total</b>		<b>12.2262</b>	<b>0.7225</b>	<b>0.0000</b>	<b>30.2898</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	60.23	12.2262	0.7225	0.0000	30.2898
<b>Total</b>		<b>12.2262</b>	<b>0.7225</b>	<b>0.0000</b>	<b>30.2898</b>

**9.0 Operational Offroad**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

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

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**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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CM Residence Inn - Project Operations - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**CM Residence Inn - Project Operations  
Marin County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	149.00	Room	4.97	216,348.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	69
<b>Climate Zone</b>	5			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	2.68	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

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

Project Characteristics - Existing Development, PG&E 2019 Carbon Intensity factor

Land Use - Proposed 149-Room Hotel

Construction Phase - Operation Only

Off-road Equipment - 1 Add'l Concrete/Industrial Saw Added for Pavement Demo

Energy Mitigation - Comply with Tier 1 of CalGreen Code (15% improvement) and Onsite Solar of 245,471 kWh

Water Mitigation - 80% Water Recovery Rate

Table Name	Column Name	Default Value	New Value
tbIFleetMix	HHD	0.00	3.6850e-003
tbIFleetMix	LDA	0.00	0.54
tbIFleetMix	LDT1	0.00	0.06
tbIFleetMix	LDT2	0.00	0.20
tbIFleetMix	LHD1	0.00	0.02
tbIFleetMix	LHD2	0.00	5.4330e-003

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tbIFleetMix	MCY	0.00	0.03
tbIFleetMix	MDV	0.00	0.12
tbIFleetMix	MH	0.00	2.8090e-003
tbIFleetMix	MHD	0.00	6.6450e-003
tbIFleetMix	OBUS	0.00	6.6200e-004
tbIFleetMix	SBUS	0.00	7.2200e-004
tbIFleetMix	UBUS	0.00	4.0600e-004



CM Residence Inn - Project Operations - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.0 Emissions Summary**

**2.1 Overall Construction**

Not Applicable

**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	0.9579	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
Energy	0.0423	0.3841	0.3227	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	420.2510	420.2510	8.0100e-003	7.6700e-003	422.7360
Mobile	0.4841	0.4476	4.1003	7.7500e-003	0.8296	5.8700e-003	0.8354	0.2215	5.4700e-003	0.2269	0.0000	726.4457	726.4457	0.0538	0.0347	738.1325
Waste						0.0000	0.0000		0.0000	0.0000	16.5600	0.0000	16.5600	0.9787	0.0000	41.0267
Water						0.0000	0.0000		0.0000	0.0000	1.1991	0.0267	1.2258	0.1232	2.9100e-003	5.1714
<b>Total</b>	<b>1.4842</b>	<b>0.8318</b>	<b>4.4243</b>	<b>0.0101</b>	<b>0.8296</b>	<b>0.0351</b>	<b>0.8646</b>	<b>0.2215</b>	<b>0.0347</b>	<b>0.2561</b>	<b>17.7591</b>	<b>1,146.7261</b>	<b>1,164.4852</b>	<b>1.1636</b>	<b>0.0453</b>	<b>1,207.0694</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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	0.9579	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
Energy	0.0372	0.3379	0.2638	2.0300e-003		0.0257	0.0257		0.0257	0.0257	0.0000	369.4984	369.4984	7.0500e-003	6.7400e-003	371.6840
Mobile	0.4841	0.4476	4.1003	7.7500e-003	0.8296	5.8700e-003	0.8354	0.2215	5.4700e-003	0.2269	0.0000	726.4457	726.4457	0.0538	0.0347	738.1325
Waste						0.0000	0.0000		0.0000	0.0000	16.5600	0.0000	16.5600	0.9787	0.0000	41.0267
Water						0.0000	0.0000		0.0000	0.0000	0.2398	6.7600e-003	0.2466	0.0246	5.8000e-004	1.0357
<b>Total</b>	<b>1.4791</b>	<b>0.7855</b>	<b>4.3854</b>	<b>9.7800e-003</b>	<b>0.8296</b>	<b>0.0316</b>	<b>0.8611</b>	<b>0.2215</b>	<b>0.0312</b>	<b>0.2526</b>	<b>16.7998</b>	<b>1,095.9536</b>	<b>1,112.7534</b>	<b>1.0641</b>	<b>0.0420</b>	<b>1,151.8818</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>0.34</b>	<b>5.56</b>	<b>0.88</b>	<b>2.69</b>	<b>0.00</b>	<b>10.01</b>	<b>0.41</b>	<b>0.00</b>	<b>10.13</b>	<b>1.37</b>	<b>5.40</b>	<b>4.43</b>	<b>4.44</b>	<b>8.55</b>	<b>7.20</b>	<b>4.57</b>

**3.0 Construction Detail**

**Not Applicable**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.4841	0.4476	4.1003	7.7500e-003	0.8296	5.8700e-003	0.8354	0.2215	5.4700e-003	0.2269	0.0000	726.4457	726.4457	0.0538	0.0347	738.1325
Unmitigated	0.4841	0.4476	4.1003	7.7500e-003	0.8296	5.8700e-003	0.8354	0.2215	5.4700e-003	0.2269	0.0000	726.4457	726.4457	0.0538	0.0347	738.1325

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,245.64	1,220.31	886.55	2,262,291	2,262,291
Total	1,245.64	1,220.31	886.55	2,262,291	2,262,291

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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.540731	0.061602	0.202834	0.122898	0.023958	0.005433	0.006645	0.003685	0.000662	0.000406	0.027616	0.000722	0.002809

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.7103	1.7103	0.0000	0.0000	1.7103
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2.0856	2.0856	0.0000	0.0000	2.0856
NaturalGas Mitigated	0.0372	0.3379	0.2838	2.0300e-003		0.0257	0.0257		0.0257	0.0257	0.0000	367.7882	367.7882	7.0500e-003	6.7400e-003	369.9738
NaturalGas Unmitigated	0.0423	0.3841	0.3227	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	418.1655	418.1655	8.0100e-003	7.6700e-003	420.6504

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**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					
Hotel	7.83612e+006	0.0423	0.3841	0.3227	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	418.1655	418.1655	8.0100e-003	7.6700e-003	420.6504
<b>Total</b>		<b>0.0423</b>	<b>0.3841</b>	<b>0.3227</b>	<b>2.3000e-003</b>		<b>0.0292</b>	<b>0.0292</b>		<b>0.0292</b>	<b>0.0292</b>	<b>0.0000</b>	<b>418.1655</b>	<b>418.1655</b>	<b>8.0100e-003</b>	<b>7.6700e-003</b>	<b>420.6504</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					
Hotel	6.89209e+006	0.0372	0.3379	0.2838	2.0300e-003		0.0257	0.0257		0.0257	0.0257	0.0000	367.7882	367.7882	7.0500e-003	6.7400e-003	369.9738
<b>Total</b>		<b>0.0372</b>	<b>0.3379</b>	<b>0.2838</b>	<b>2.0300e-003</b>		<b>0.0257</b>	<b>0.0257</b>		<b>0.0257</b>	<b>0.0257</b>	<b>0.0000</b>	<b>367.7882</b>	<b>367.7882</b>	<b>7.0500e-003</b>	<b>6.7400e-003</b>	<b>369.9738</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.71564e+006	2.0856	0.0000	0.0000	2.0856
<b>Total</b>		<b>2.0856</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0856</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.40689e+006	1.7103	0.0000	0.0000	1.7103
<b>Total</b>		<b>1.7103</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.7103</b>

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.9579	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
Unmitigated	0.9579	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1128					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8450					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
<b>Total</b>	<b>0.9579</b>	<b>1.0000e-005</b>	<b>1.3700e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.6600e-003</b>	<b>2.6600e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.8400e-003</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	0.1128					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8450					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
<b>Total</b>	<b>0.9579</b>	<b>1.0000e-005</b>	<b>1.3700e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.6600e-003</b>	<b>2.6600e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.8400e-003</b>

7.0 Water Detail



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.2466	0.0246	5.8000e-004	1.0357
Unmitigated	1.2258	0.1232	2.9100e-003	5.1714

**7.2 Water by Land Use**

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.77965 / 0.419961	1.2258	0.1232	2.9100e-003	5.1714
<b>Total</b>		<b>1.2258</b>	<b>0.1232</b>	<b>2.9100e-003</b>	<b>5.1714</b>

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0.75593 / 0.419961	0.2466	0.0246	5.8000e-004	1.0357
<b>Total</b>		<b>0.2466</b>	<b>0.0246</b>	<b>5.8000e-004</b>	<b>1.0357</b>

**8.0 Waste Detail**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.5600	0.9787	0.0000	41.0267
Unmitigated	16.5600	0.9787	0.0000	41.0267

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	81.58	16.5600	0.9787	0.0000	41.0267
<b>Total</b>		<b>16.5600</b>	<b>0.9787</b>	<b>0.0000</b>	<b>41.0267</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	81.58	16.5600	0.9787	0.0000	41.0267
<b>Total</b>		<b>16.5600</b>	<b>0.9787</b>	<b>0.0000</b>	<b>41.0267</b>

**9.0 Operational Offroad**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**


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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**


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