APPENDIX R Alternatives Analysis



MEMORANDUM

Date: March 27, 2020

To: Mike Harden and Jay Ziff, ESA

From: Tom Gaul, Miguel Nunez, and Johnny Schmidt

Subject: Hollywood Center Alternatives Analysis

LA17-2987

This memorandum presents an analysis of potential transportation impacts of alternatives developed for the Hollywood Center Project. In addition to the No Build Alternative, eight alternatives to the Project were evaluated to determine their potential impacts on the surrounding transportation system as compared to the Project without the East Site Hotel Option and the Project with the East Site Hotel Option. The analysis presents information pertaining to daily trips, daily vehicle miles travelled (VMT), and the City's new transportation impact criteria based on daily residential VMT per capita and daily work VMT per employee estimates for the Project and for each alternative. The alternatives are listed below:

- Alternative 1: No Project/No Build Alternative
- Alternative 2: Development under Existing Zoning Alternative
- Alternative 3: Reduced Maximum Height Alternative
- Alternative 4: Commercial-Focused Land Use Development Alternative
- Alternative 5: Proposed Community Plan Update Compliant Alternative
- Alternative 6: Above-Grade Parking Alternative
- Alternative 7: Full Office Alternative
- Alternative 8: Mixed Land Use Alternative

ALTERNATIVES ANALYSIS APPROACH

This alternatives analysis focuses on the VMT analysis as the Project with and without the East Site Hotel Option and each alternative's overall design and relation to the adjacent streets would not result in different findings for the CEQA analysis areas relating to conflicts with plans, programs, ordinances or policies, or substantially increasing geometric hazards. The plans, programs, ordinances and policies review focuses on consistency with City plans and policies that relate to

Mike Harden and Jay Ziff, ESA March 27, 2020 Page 2



how the project interfaces with the public right-of-way at access points, along the building frontage, when making required or voluntary modifications to the public right-of-way, and if/how the project would preclude the City from implementing planned projects from Mobility Plan 2035. The geometric hazards analysis reviews the proposed access points. While the land use programs differ, the considerations relative to the plans, programs, ordinances and policies review and the geometric hazards analysis for the Project with and without the East Site and alternatives would not result in different findings as the they share common aspects such as the location of access points, multi-modal circulation features, and modifications to the public right-of-way that are consistent with Mobility Plan 2035 and do not preclude the City's ability to install planned projects on streets in the study area.

Accordingly, the following section summarizes the approach for assessing VMT generated by the Project alternatives.

LADOT developed a VMT Calculator tool to be used to assess the VMT impacts of proposed development projects within the City. The VMT Calculator also assesses the effectiveness of selected transportation demand management (TDM) measures proposed for a project based on available research. Analysis was conducted for the Project with and without the East Site Hotel Option using the City's VMT analysis procedures and VMT Calculator. This analysis considered both the Project and alternatives' proposed land uses and the TDM program.

Impact Criteria

The City's VMT impact criteria for development projects was adopted from guidance from the California Office of Planning and Research. Per the criteria, a development project alternative would have a potential significant impact if the project meets one or more of the following:

- For residential projects, the project would generate household VMT per capita exceeding 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which the project is located (see table below). This criterion was used for the multifamily residential and senior affordable housing components of the alternatives.
- For office uses, the project would generate work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC in which the project is located (see table below). This criterion is applied for alternatives that contain an office component.



- Local-serving retail development tends to shorten trips and reduce VMT whereas regional-serving retail development can lead to substitution of longer trips for shorter ones and could increase VMT. Local-serving is defined as retail uses less than 50,000 square feet. For the Project and the East Site Hotel Option, the retail/restaurant components of the Project are therefore considered to be local serving and those portions of the Project are considered to not have a significant VMT impact. This criterion was used for restaurant components of the alternatives.
- For mixed-use projects, evaluate each component separately and apply the impact criteria above for each individual land use.
- For other land use types, such as the select alternatives with a hotel use, measure VMT
 impacts for the work trip element using the criterion for office projects above.

VMT Impact Criteria (15% Below APC Average)

Area Planning Commission	Daily Household VMT per Capita	Daily Work VMT per Employee
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

The Project is located within the Central APC.

Methodology

Per the City's procedures, household VMT per capita and work VMT per employee were estimated using the City's VMT Calculator tool by West Site and the East Site for each alternative. The VMT



Calculator starts with Institute of Transportation Engineers (ITE, 9th Edition) trip generation rates¹, and then implements the mixed-use (MXD) methodology from the U.S. EPA and utilizes socioeconomic, transit, and trip length data from the Los Angeles citywide travel demand model (itself calibrated to Los Angeles conditions) to adjust the trips for internalization, transit, and walkability. The VMT Calculator was calibrated based on local count data collected in the City. Further information regarding the methods used by the VMT Calculator to estimate daily trips and daily VMT is provided in the City's VMT Calculator Documentation report.² In order to develop sitewide VMT estimates, the individual estimates for each site were normalized by that site's trip generation and then summed. The VMT Calculator allows for the selection of a wide variety of potential land uses including the multi-family housing, senior affordable housing, office, hotel, and restaurant uses proposed as part of the alternatives.

The project VMT impact is considered significant if any one (or all) of the project land uses exceed the impact criteria identified in the impact criteria table above for that particular land use, taking credit for internal capture. In such cases, mitigation options that reduce the VMT generated by any or all of the land uses could be considered.

For mixed-use projects, each component is evaluated separately, and the impact criteria above is are applied for each relevant individual land use. The individual criterion for each land use was applied for the alternatives.

ALTERNATIVES ANALYSIS RESULTS

Table 1 provides a summary of each alternative and analysis results, including the proposed land uses, daily trips, daily VMT, and per capita residential and employee VMT estimates. Screenshots and results of the VMT Calculator tool are available in Attachment A.

Utilizing the methodology described above, the alternatives' land uses, quantities, and TDM program were inputted into the VMT Calculator for each land use. Based on the land uses in each alternative, a corresponding estimate is provided in Table 1 for daily trips, daily VMT, and daily

¹ The LA VMT Calculator was under development prior to release of the 10th Edition of ITE's trip generation manual in late 2017. The VMT Calculator was validated to LA conditions based on the empirical counts conducted at market rate residential, affordable housing, office, and mixed-use sites in the City, regardless of the source of the rates used as a starting point.

² City of Los Angeles, Department of Transportation (LADOT) and Los Angeles Department of City Planning (DCP), City of Los Angeles VMT Calculator Documentation, November 2019.

Mike Harden and Jay Ziff, ESA March 27, 2020 Page 5



household VMT per capita, and daily work VMT per employee. Alternatives without a residential component do not display a residential per capita VMT as there are no residential land uses within those alternatives.

The per capita VMT estimates were compared to the VMT impact criteria, which are defined as 15% below the APC per capita averages and shown above. The Central APC impact criteria is a daily household VMT per capita of 6.0 and daily work VMT per employee of 7.6. As is shown in Table 1, the residential and employee per capita VMT estimates for all of the alternatives are below the respective VMT impact thresholds and, therefore, none of the Project alternatives would have significant VMT impacts.

TABLE 1
HOLLYWOOD CENTER ALTERNATIVES ANALYSIS RESULTS

Alternative	Market Rate Housing	Senior Affordable Housing	Hotel	Office	Retail/ Restaurant	Public Open Space	Daily Trips	Daily VMT	Daily Household VMT/ Capita	Daily Work VMT/ Employee [b]	Significant Impact?
Project	872 du	133 du	0	0	30,176 sf	350 seats	3,865	24,394	4.8	[c]	No
Project w/ East Site Hotel Option	768 du	116 du	220 rooms (130,278 sf)	0	30,176 sf	350 seats	4,504	28,810	4.7	4.8	No
1 (No Build)	None	-	-	-	-	-	-	-	-	-	No
2	384 du	0	0	0	30,176 sf	-	2,429	15,811	4.8	[c]	No
3	827 du	125 du	0	0	30,177 sf	-	3,621	22,836	4.8	[c]	No
4	0	0	324 rooms (146,698 sf)	603,060 sf	30,176 sf	-	5,350	38,839	N/A	5.0	No
5	583 du	89 du	0	0	30,176 sf	-	3,006	19,248	4.7	[c]	No
6	872 du	133 du	0	0	30,176 sf	-	3,746	23,576	4.8	[c]	No
7	0	0	0	1,063,152 sf	31,568 sf	-	6,324	47,213	N/A	4.5	No
8	770 du	133 du	0	386,347 du	27,140 sf	350 seats	5,336	35,989	4.5	4.7	No

[[]a] VMT Threshold for Household VMT/Capita is 6.0, per LA VMT Calculator

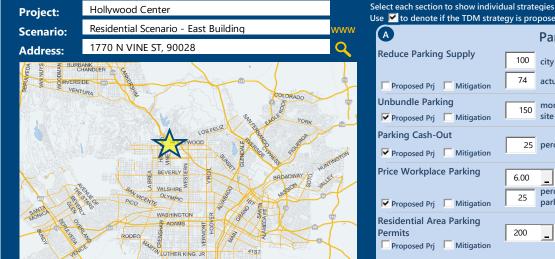
[[]b] VMT Threshold for Work VMT/Employee is 7.6, per LA VMT Calculator

[[]c] Per Transportation Analysis Guidelines the portion of the project that contains retail uses less than 50,000 square feet is screened from work VMT/employee analysis.

ATTACHMENT A – VMT CALCULATOR RESULTS



Project Information



Land Use Type	Value	Unit	
Retail Movie Theater	175	Seats	٠
Housing Multi-Family	423	DU	
Retail High-Turnover Sit-Down Restaurant	14.86	ksf	
Retail Fast-Food Restaurant	2.62	ksf	
Retail Movie Theater	175	Seats	
Housing Affordable Housing - Senior	65	DU	

Click here to add a single custom land use type (will be included in the above list)

TDM Strategies

Use 🗹 to denote if the TDM strategy is proposed part of the project or is a mitigation strategy				
A	Parking			
Reduce Parking Supply	city code parking provision for the project site			
Proposed Prj Mitigation	actual parking provision for the project site			
Unbundle Parking ✓ Proposed Pri	monthly parking cost (dollar) for the project site			
Parking Cash-Out ✓ Proposed Prj	25 percent of employees eligible			
Price Workplace Parking ✓ Proposed Prj Mitigation	daily parking charge (dollar) percent of employees subject to priced parking			
Residential Area Parking Permits Proposed Prj Mitigation	cost (dollar) of annual permit			

В	Transit	
G	Education & Encouragement	
D	Commute Trip Reductions	
3	Shared Mobility	
3	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation		
2,074	2,074		
Daily Vehicle Trips	Daily Vehicle Trips		
12,997	12,997		
Daily VMT	Daily VMT		
5.0	5.0		
Houseshold VMT	Houseshold VMT		
per Capita	per Capita		
4.6	4.6		
Work VMT	Work VMT		
per Employee	per Employee		
Significant \	/MT Impact?		
Household: No	Household: No		
Threshold = 6.0	Threshold = 6.0		
15% Below APC	15% Below APC		
Work: No	Work: No		
Threshold = 7.6	Threshold = 7.6		
15% Below APC	15% Below APC		



Click here to add a single custom land use type (will be included in the above list)

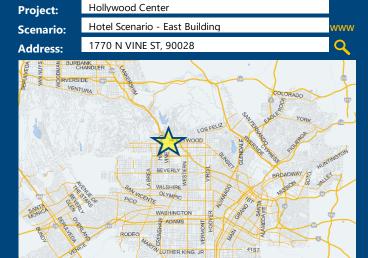


Project Information Analysis Results TDM Strategies Select each section to show individual strategies Hollywood Center **Project:** Use V to denote if the TDM strategy is proposed part of the project or is a mitigation strategy With **Proposed** Residential Scenario - West Building **Scenario:** www A **Parking** Mitigation **Project** 1745 N VINE ST, 90028 Q **Address:** Reduce Parking Supply city code parking provision for the project site 1,791 1.791 actual parking provision for the project site Proposed Prj Mitigation Daily Vehicle Trips Daily Vehicle Trips Unbundle Parking monthly parking cost (dollar) for the project 11.397 11.397 Daily VMT Daily VMT Parking Cash-Out 25 percent of employees eligible ✓ Proposed Prj Mitigation 4.5 4.5 Price Workplace Parking Houseshold VMT Houseshold VMT daily parking charge (dollar) per Capita per Capita percent of employees subject to priced parking ▼ Proposed Pri Mitigation 3.6 3.6 Residential Area Parking Work VMT Work VMT cost (dollar) of annual permit Permits per Employee per Employee Proposed Prj Mitigation В **Transit Significant VMT Impact?** C **Education & Encouragement Land Use Type** Value Unit O **Commute Trip Reductions** Seats Retail | Movie Theater Household: No Household: No 449 DU E Housing | Multi-Family **Shared Mobility** Threshold = 6.0 Threshold = 6.0F 15% Below APC 15% Below APC **Bicycle Infrastructure** G **Neighborhood Enhancement** Work: No Work: No Threshold = 7.6Threshold = 7.615% Below APC 15% Below APC

Measuring the Miles



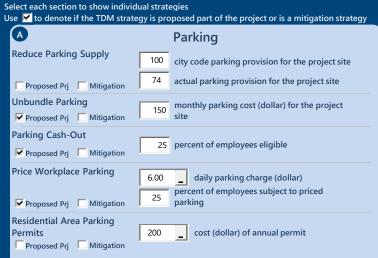
Project Information



Land Use Type	Value	Unit
Retail Movie Theater	175	Seats 🚽
Housing Multi-Family Housing Hotel Retail High-Turnover Sit-Down Restaurant Retail Fast-Food Restaurant Retail Movie Theater Housing Affordable Housing - Senior	319 220 14.86 2.62 175 48	DU Rooms ksf ksf Seats DU

Click here to add a single custom land use type (will be included in the above list)

TDM Strategies



В	Transit	
G	Education & Encouragement	
D	Commute Trip Reductions	
3	Shared Mobility	
3	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation		
2,713	2,713		
Daily Vehicle Trips	Daily Vehicle Trips		
17,413 Daily VMT	17,413 Daily VMT		
4.9	4.9		
Houseshold VMT per Capita	Houseshold VMT per Capita		
5.4	5.4		
Work VMT per Employee	Work VMT per Employee		
Significant \	/MT Impact?		
Household: No	Household: No		
Threshold = 6.0 15% Below APC	Threshold = 6.0 15% Below APC		
Work: No	Work: No		
Threshold = 7.6 15% Below APC	Threshold = 7.6 15% Below APC		





Project Information TDM Strategies Select each section to show individual strategies Hollywood Center **Project:** Use V to denote if the TDM strategy is proposed part of the project or is a mitigation strategy Hotel Scenario - West Building **Scenario:** A **Parking** 1745 N VINE ST, 90028 **Address:** Reduce Parking Supply city code parking provision for the project site actual parking provision for the project site Proposed Prj Mitigation Unbundle Parking monthly parking cost (dollar) for the project Proposed Prj Mitigation Parking Cash-Out 25 percent of employees eligible ✓ Proposed Prj Mitigation Price Workplace Parking daily parking charge (dollar) percent of employees subject to priced parking ▼ Proposed Pri Mitigation Residential Area Parking cost (dollar) of annual permit Permits Proposed Prj Mitigation В **Transit** C **Education & Encouragement Land Use Type** Value Unit O **Commute Trip Reductions** Seats 175 Retail | Movie Theater Housing | Multi-Family 449 DU Œ **Shared Mobility** Retail | High-Turnover Sit-Down Restaurant 10.79 ksf F Retail | Fast-Food Restaurant 1.9 ksf **Bicycle Infrastructure** Retail | Movie Theater 175 Seats G Housing | Affordable Housing - Senior **Neighborhood Enhancement**

Click here to add a single custom land use type (will be included in the above list)

Analysis Results

Proposed Project	With Mitigation		
1,791	1,791		
Daily Vehicle Trips	Daily Vehicle Trips		
11,397	11,397		
Daily VMT	Daily VMT		
4.5	4.5		
Houseshold VMT	Houseshold VMT		
per Capita	per Capita		
3.6	3.6		
Work VMT	Work VMT		
per Employee	per Employee		
Significant \	/MT Impact?		
Household: No	Household: No		
Threshold = 6.0 15% Below APC	Threshold = 6.0 15% Below APC		
1376 BEIOW AFC	13% Below Arc		
Work: No	Work: No		
Threshold = 7.6	Threshold = 7.6		
15% Below APC	15% Below APC		





Project Information Hollywood Center

Project:



Land Use Type	Value	Unit	
Retail High-Turnover Sit-Down Restaurant	17.485	ksf	-
Housing Multi-Family Retail High-Turnover Sit-Down Restaurant	192 17.485	DU ksf	

TDM Strategies

Select each section to show individual strategies

✓ Proposed Prj Mitigation

Use to denote if the TDM strategy is proposed part of the project or is a mitigation strategy

Parking

Reduce Parking Supply

100 city code parking provision for the project site

Proposed Prj Mitigation 74 actual parking provision for the project site

Unbundle Parking monthly parking cost (dollar) for the project site

Proposed Prj Mitigation 150 monthly parking cost (dollar) for the project site

Parking Cash-Out 25 percent of employees eligible

Price Workplace Parking

6.00 daily parking charge (dollar)

percent of employees subject to priced parking

Residential Area Parking
Permits

200 cost (dollar) of annual permit
Proposed Prj Mitigation

B Transit
C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

Bicycle Infrastructure

Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
1,368	1,368
Daily Vehicle Trips	Daily Vehicle Trips
8,813	8,813
Daily VMT	Daily VMT
5.0	5.0
Houseshold VMT	Houseshold VMT
per Capita	per Capita
5.2	5.2
Work VMT	Work VMT
per Employee	per Employee

Household: No Threshold = 6.0 15% Below APC Threshold = 5.0 15% Below APC

Measuring the Miles



Project Information

Hollywood Center

Project:



Land Use Type	Value	Unit	
Retail High-Turnover Sit-Down Restaurant	12.691	ksf	
Housing Multi-Family	192	DU	
Retail High-Turnover Sit-Down Restaurant	12.691	ksf	

TDM Strategies

Use 🗹 to deno	te if the TDM strategy is proposed part of the project or is a mitigation strategy
A	Parking

city code parking provision for the project site

25 percent of employees eligible

Select each section to show individual strategie

Reduce Parking Supply

Proposed Prj Mitigation

Proposed Prj Mitigation	74	actual parking provision for the project site
Unbundle Parking ✓ Proposed Prj	150	monthly parking cost (dollar) for the project site
Parking Cash-Out		

Price Workplace Parking

6.00 daily parking charge (dollar)

Proposed Pri Mitigation

Mitigation

25 percent of employees subject to priced parking

Permits 200 cost (dollar) of annual permit

B Transit
C Education & Encouragement
D Commute Trip Reductions
E Shared Mobility
F Bicycle Infrastructure
G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
1.067	1.067
Daily Vehicle Trips	Daily Vehicle Trips
7,097	7,097
Daily VMT	Daily VMT
4.6	4.6
Houseshold VMT	Houseshold VMT
per Capita	per Capita
4.6	4.6
Work VMT	Work VMT
per Employee	per Employee

Significant VMT Impact? Household: No Threshold = 6.0 15% Below APC Work: No Threshold = 7.6 15% Below APC Threshold = 7.6 15% Below APC Threshold = 7.6 15% Below APC

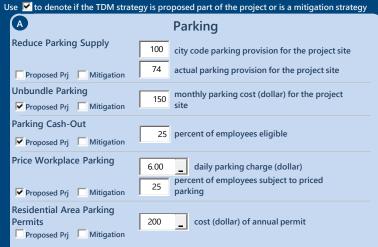
Mea:



Project Information Select each section to show individual strategies Hollywood Center **Project:** Alt 3 - East Site Scenario: 1770 N VINE ST, 90028 Address:

Land Use Type		Value	Unit	
Housing Affordable Housing - Senior		53	DU	•
Housing Multi-Family Retail High-Turnover Sit-Down Restaurar Housing Affordable Housing - Senior	nt	349 17.485 53	DU ksf DU	

TDM Strategies



В	Transit	
G	Education & Encouragement	
D	Commute Trip Reductions	
3	Shared Mobility	
3	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation		
1,815	1,815		
Daily Vehicle Trips	Daily Vehicle Trips		
11,431	11,431		
Daily VMT	Daily VMT		
5.0	5.0		
Houseshold VMT	Houseshold VMT		
per Capita	per Capita		
P 0. 00P.10			
4.6	4.6		
Work VMT	Work VMT		
per Employee	per Employee		
Significant '	VMT Impact?		
Household: No	Household: No		
Threshold = 6.0	Threshold = 6.0		
15% Below APC	15% Below APC		
Work: No	Work: No		
Threshold = 7.6	Threshold = 7.6		

Threshold = 7.615% Below APC

Click here to add a single custom land use type (will be included in the above list)

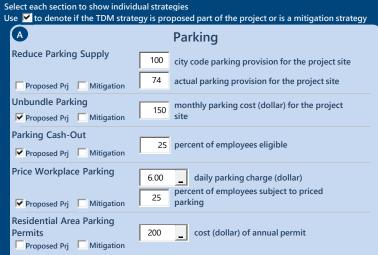


15% Below APC



Land Use Type		Value	Unit	
Housing Multi-Family	•		DU	•
Housing Multi-Family Retail High-Turnover Sit-Down Restaural Housing Affordable Housing - Senior	nt	478 12.691 72	DU ksf DU	

TDM Strategies



B	Transit	
G	Education & Encouragement	
D	Commute Trip Reductions	
E	Shared Mobility	
3	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation	
1,806	1,806	
Daily Vehicle Trips	Daily Vehicle Trips	
11,405	11,405	
Daily VMT	Daily VMT	
4.5	4.5	
Houseshold VMT	Houseshold VMT	
per Capita	per Capita	
3.4	3.4	
Work VMT	Work VMT	
per Employee	per Employee	
Significant \	/MT Impact?	
Household: No	Household: No	
Threshold = 6.0	Threshold = 6.0	
15% Below APC	15% Below APC	
Work: No	Work: No	
Threshold = 7.6	Threshold = 7.6	

15% Below APC

Measuring the Miles

15% Below APC

Click here to add a single custom land use type (will be included in the above list)



Project Information Analysis Results TDM Strategies Select each section to show individual strategies Hollywood Center **Project:** Use V to denote if the TDM strategy is proposed part of the project or is a mitigation strategy With **Proposed** Alt 4 - East Site **Scenario:** www A **Parking** Mitigation **Project** 1770 N VINE ST, 90028 Q **Address:** Reduce Parking Supply city code parking provision for the project site 2,211 2.211 actual parking provision for the project site Proposed Prj Mitigation Daily Vehicle Trips Daily Vehicle Trips Unbundle Parking monthly parking cost (dollar) for the project 14.715 14.715 Daily VMT Daily VMT Parking Cash-Out 25 percent of employees eligible ✓ Proposed Prj Mitigation 0.0 0.0 Price Workplace Parking Houseshold VMT Houseshold VMT daily parking charge (dollar) per Capita per Capita percent of employees subject to priced parking ▼ Proposed Pri Mitigation 5.8 5.8 Residential Area Parking Work VMT Work VMT cost (dollar) of annual permit Permits per Employee per Employee Proposed Prj Mitigation В **Transit Significant VMT Impact? (Education & Encouragement Land Use Type** Value Unit O **Commute Trip Reductions** DU Housing | Multi-Family Household: No Household: No 324 E Housing | Hotel Rooms **Shared Mobility** Threshold = 6.0 Threshold = 6.0Retail | High-Turnover Sit-Down Restaurant 17.485 ksf F 15% Below APC 15% Below APC **Bicycle Infrastructure** G **Neighborhood Enhancement** Work: No Work: No Threshold = 7.6Threshold = 7.615% Below APC 15% Below APC

Measuring the Miles



Project Information TDM Strategies Select each section to show individual strategies Hollywood Center **Project:** Use V to denote if the TDM strategy is proposed part of the project or is a mitigation strategy Alt 4 - West Site Scenario: A **Parking** 1745 N VINE ST, 90028 **Address: Reduce Parking Supply** city code parking provision for the project site actual parking provision for the project site Proposed Prj Mitigation **Unbundle Parking** monthly parking cost (dollar) for the project Proposed Prj Mitigation Parking Cash-Out 25 percent of employees eligible ✓ Proposed Prj Mitigation Price Workplace Parking daily parking charge (dollar) percent of employees subject to priced ▼ Proposed Pri Mitigation Residential Area Parking cost (dollar) of annual permit Permits Proposed Prj Mitigation В **Transit (Education & Encouragement Land Use Type** Value Unit O **Commute Trip Reductions** ksf Office | General Office Retail | High-Turnover Sit-Down Restaurant ksf Œ 12.691 **Shared Mobility** Office | General Office 603.06 ksf Œ **Bicycle Infrastructure** G **Neighborhood Enhancement**

Analysis Results

Proposed Project	With Mitigation
3,139	3,139
Daily Vehicle Trips	Daily Vehicle Trips
24.124	24.124
Daily VMT	Daily VMT
0.0	0.0
Houseshold VMT	Houseshold VMT
per Capita	per Capita
4.1	4.1
Work VMT	Work VMT
per Employee	per Employee
C'	(BAT
Significant	/MT Impact?
Household: No	Household: No
Threshold = 6.0	Threshold = 6.0
15% Below APC	15% Below APC
Work: No	Work: No
Threshold = 7.6	Threshold = 7.6
15% Below APC	15% Below APC

Measuring the Miles



Project Information Project: Hollywood Center Alt 5 - East Site 1770 N VINE ST, 90028 DURBANK CHANDLER WWW.SHIRE WW.SHIRE WW.SHIR

Land Use Type		Value	Unit	
Housing Multi-Family	Ŧ	303	DU	
Retail High-Turnover Sit-Down Restauran Housing Affordable Housing - Senior Housing Multi-Family	nt	17.485 46 303	ksf DU DU	

TDM Strategies

Select each section to show individual strategies

Use Y to denote if the TDM strategy is proposed part of the project or is a mitigation strategy A **Parking Reduce Parking Supply** city code parking provision for the project site actual parking provision for the project site Proposed Prj Mitigation **Unbundle Parking** monthly parking cost (dollar) for the project Parking Cash-Out 25 percent of employees eligible Proposed Prj Mitigation Price Workplace Parking daily parking charge (dollar) percent of employees subject to priced Proposed Prj Mitigation Residential Area Parking cost (dollar) of annual permit Proposed Prj Mitigation

В	Transit	
G	Education & Encouragement	
D	Commute Trip Reductions	
3	Shared Mobility	
3	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation
1,692	1,692
Daily Vehicle Trips	Daily Vehicle Trips
10,713	10,713
Daily VMT	Daily VMT
4.9	4.9
Houseshold VMT	Houseshold VMT
per Capita	per Capita
4.8	4.8
Work VMT	Work VMT
per Employee	per Employee

Significant	vivir impact.
Household: No	Household: No
Threshold = 6.0 15% Below APC	Threshold = 6.0 15% Below APC
Work: No	Work: No
Threshold = 7.6 15% Below APC	Threshold = 7.6 15% Below APC

Measuring the Miles



Project Information Hollywood Center **Project:** Alt 5 - West Site Scenario: www 1745 N VINE ST, 90028 Q Address: **Land Use Type** Value Unit ksf Retail | High-Turnover Sit-Down Restaurant DU

TDM Strategies

Select each section to show individual strategies

Use 🗹 to denote if the TDM strategy is proposed part of the project or is a mitigation strategy				
	A	Parking		
	Reduce Parking Supply	city code parking provision for the project site		
	Proposed Prj Mitigation	actual parking provision for the project site		
	Unbundle Parking ✓ Proposed Prj Mitigation	monthly parking cost (dollar) for the project site		
	Parking Cash-Out ✓ Proposed Prj Mitigation	25 percent of employees eligible		
	Price Workplace Parking ✓ Proposed Prj Mitigation	daily parking charge (dollar) percent of employees subject to priced parking		
	Residential Area Parking Permits Proposed Prj Mitigation	200 cost (dollar) of annual permit		

B	Transit	
G	Education & Encouragement	
O	Commute Trip Reductions	
E	Shared Mobility	
Ð	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

1,314	1,314 Daily Vehicle Trips
	Daily Vehicle Trips
Daily Vehicle Trips	Daily Vernere Trips
8,535	8,535
Daily VMT	Daily VMT
4.5	4.5
Houseshold VMT	Houseshold VMT
per Capita	per Capita
F F	
4.2	4.2
Work VMT	Work VMT
per Employee	per Employee
Significant VI	MT Impact?
Household: No	Household: No
Threshold = 6.0	Threshold = 6.0
15% Below APC	15% Below APC
Work: No	Work: No
Threshold = 7.6	Threshold = 7.6

15% Below APC



15% Below APC

Click here to add a single custom land use type (will be included in the above list)

280

DU

43

Housing | Multi-Family

Housing | Affordable Housing - Senior Retail | High-Turnover Sit-Down Restaurant



Project Information Hollywood Center **Project:** Alt 6 - East Site Scenario: www 1770 N VINE ST, 90028 Q Address: **Land Use Type** Value Unit 423 DU Housing | Multi-Family Retail | High-Turnover Sit-Down Restaurant 17.485 ksf Housing | Multi-Family DU Housing | Affordable Housing - Senior DU

TDM Strategies

A	Parking	
Reduce Parking Supply	100 city code parking provis	ion for the project site
Proposed Prj Mitigation	74 actual parking provision	for the project site
Unbundle Parking ✓ Proposed Prj	monthly parking cost (d site	ollar) for the project
Parking Cash-Out ✓ Proposed Prj Mitigation	25 percent of employees el	ligible
Price Workplace Parking ✓ Proposed Prj Mitigation	daily parking charge percent of employees suparking	
Residential Area Parking Permits Proposed Prj Mitigation	200 cost (dollar) of ann	ual permit

B	Transit
G	Education & Encouragement
O	Commute Trip Reductions
E	Shared Mobility
Ð	Bicycle Infrastructure
G	Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
2,012	2,012
Daily Vehicle Trips	Daily Vehicle Trips
12,589	12,589
Daily VMT	Daily VMT
5.0	5.0
Houseshold VMT	Houseshold VMT
per Capita	per Capita
4.4	4.4
Work VMT	Work VMT
per Employee	per Employee
Significant \	/MT Impact?
Household: No	Household: No
Threshold = 6.0 15% Below APC	Threshold = 6.0 15% Below APC
15% Below APC	15% Below APC
Work: No	Work: No
Threshold = 7.6	Threshold = 7.6
15% Below APC	15% Below APC





Project Information Project: Hollywood Center Scenario: Alt 6 - West Site 1745 N VINE ST, 90028 ORDER OF THE STREET OF THE S

Land Use Type	Value	Unit	
Housing Affordable Housing - Senior		DU	4
Retail High-Turnover Sit-Down Restaurant Housing Multi-Family Housing Affordable Housing - Senior	12.691 449 68	ksf DU DU	

TDM Strategies

Select each section to show individual strategies

Use Y to denote if the TDM strategy is proposed part of the project or is a mitigation strategy A **Parking Reduce Parking Supply** city code parking provision for the project site actual parking provision for the project site Proposed Prj Mitigation **Unbundle Parking** monthly parking cost (dollar) for the project Parking Cash-Out 25 percent of employees eligible Proposed Prj Mitigation Price Workplace Parking daily parking charge (dollar) percent of employees subject to priced parking Proposed Prj Mitigation Residential Area Parking cost (dollar) of annual permit Proposed Prj Mitigation

В	Transit	
G	Education & Encouragement	
O	Commute Trip Reductions	
(Shared Mobility	
(F)	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation		
1,734	1,734		
Daily Vehicle Trips	Daily Vehicle Trips		
10,987 Daily VMT	10,987 Daily VMT		
4.5 Houseshold VMT per Capita	4.5 Houseshold VMT per Capita		
3.6	3.6		
Work VMT per Employee	Work VMT per Employee		
Significant \	/MT Impact?		
Household: No	Household: No		
Threshold = 6.0	Threshold = 6.0		
15% Below APC	15% Below APC		
Work: No	Work: No		
Threshold = 7.6	Threshold = 7.6		
15% Below APC	15% Below APC		

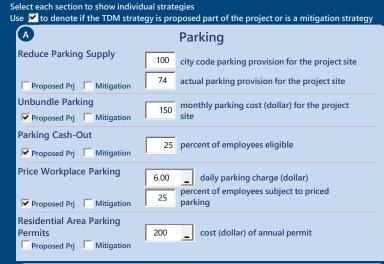




Project Information Project: Hollywood Center Alt 7 - East Site 1770 N VINE ST, 90028 ONE OF THE PROPERTY OF THE PROPERTY

Land Use Type		Value	Unit	
Office General Office	Ŧ		ksf	•
Retail High-Turnover Sit-Down Restaurar Office General Office	nt	17.485 537.28	ksf ksf	

TDM Strategies



В	Transit
G	Education & Encouragement
D	Commute Trip Reductions
3	Shared Mobility
(Bicycle Infrastructure
G	Neighborhood Enhancement
G	Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation		
3,367	3,367		
Daily Vehicle Trips	Daily Vehicle Trips		
24,548	24,548		
Daily VMT	Daily VMT		
0.0	0.0		
Houseshold VMT	Houseshold VMT		
per Capita	per Capita		
4.6	4.6		
Work VMT	Work VMT		
per Employee	per Employee		
Significant \	VMT Impact?		
Household: No	Household: No		
Threshold = 6.0	Threshold = 6.0		
15% Below APC	15% Below APC		
Work: No	Work: No		
Threshold = 7.6	Threshold = 7.6		

15% Below APC



15% Below APC

A

O

Œ

Œ

G

ksf

525.872

14.083



Project Information Hollywood Center **Project:** Alt 7 - West Site Scenario: 1745 N VINE ST, 90028 **Address: Land Use Type** Value Unit Retail | High-Turnover Sit-Down Restaurant ksf

Price Workplace Parking daily parking charge (dollar) percent of employees subject to priced ▼ Proposed Pri Mitigation Residential Area Parking cost (dollar) of annual permit Permits Proposed Prj Mitigation В **Transit (**

Select each section to show individual strategies

Reduce Parking Supply

Unbundle Parking

Proposed Prj Mitigation

Proposed Prj Mitigation Parking Cash-Out

TDM Strategies

Use V to denote if the TDM strategy is proposed part of the project or is a mitigation strategy

Parking

Education & Encouragement

Commute Trip Reductions

Shared Mobility

Bicycle Infrastructure

Neighborhood Enhancement

city code parking provision for the project site actual parking provision for the project site

monthly parking cost (dollar) for the project

25 percent of employees eligible

Analysis Results

Proposed Project	With Mitigation
2,957	2,957
Daily Vehicle Trips	Daily Vehicle Trips
22,665	22,665
Daily VMT	Daily VMT
0.0	0.0
Houseshold VMT	Houseshold VMT
per Capita	per Capita
4.3	4.3
Work VMT	Work VMT
per Employee	per Employee
Significant \	/MT Impact?
Household: No	Household: No
Threshold = 6.0 15% Below APC	Threshold = 6.0 15% Below APC
Work: No	Work: No
Threshold = 7.6	Threshold = 7.6
15% Below APC	15% Below APC

Click here to add a single custom land use type (will be included in the above list)

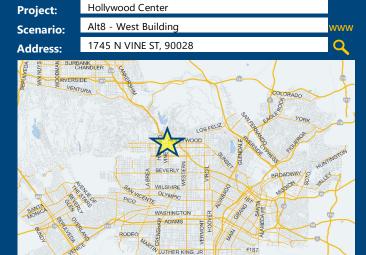
Office | General Office

Retail | High-Turnover Sit-Down Restaurant





Project Information



Land Use Type	Value	Unit	
Retail Movie Theater ▼	175	Seats	•
Housing Multi-Family Retail High-Turnover Sit-Down Restaurant Retail Fast-Food Restaurant Retail Movie Theater Housing Affordable Housing - Senior	770 10.827 1.911 175 133	DU ksf ksf Seats DU	

Click here to add a single custom land use type (will be included in the above list)

TDM Strategies

Select each section to show individual strategies

Use 🗹 to denote if the TDM strategy is proposed part of the project or is a mitigation strategy				
A	Parking			
Reduce Parking Supply	city code parking provision for the project site			
Proposed Prj Mitigation	actual parking provision for the project site			
Unbundle Parking ✓ Proposed Prj	monthly parking cost (dollar) for the project site			
Parking Cash-Out ✓ Proposed Prj Mitigation	25 percent of employees eligible			
Price Workplace Parking ✓ Proposed Prj Mitigation	daily parking charge (dollar) percent of employees subject to priced parking			
Residential Area Parking Permits Proposed Prj Mitigation	200 cost (dollar) of annual permit			

B	Transit	
G	Education & Encouragement	
O	Commute Trip Reductions	
(Shared Mobility	
F	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation
2,608	2,608
Daily Vehicle Trips	Daily Vehicle Trips
16,170	16,170
Daily VMT	Daily VMT
4.5	4.5
Houseshold VMT per Capita	Houseshold VMT per Capita
2.6	2.6
Work VMT per Employee	Work VMT per Employee

Significant VMT Impact? Household: No Threshold = 6.0 15% Below APC Work: No Threshold = 7.6 15% Below APC Threshold = 7.6 15% Below APC Threshold = 7.6 15% Below APC

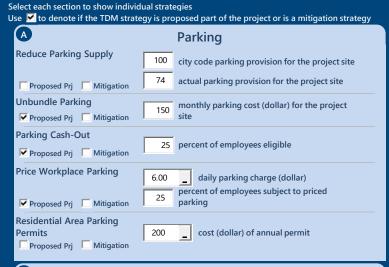




Project Information Project: Scenario: Alt8 - East Building 1770 N VINE ST, 90028 OCHANDIER VENTURA OCHANDIER OCH

Land Use Type		Value	Unit	
Retail Movie Theater	-	175	Seats	
Retail High-Turnover Sit-Down Restaurar Retail Fast-Food Restaurant Retail Movie Theater Office General Office	nt	12.242 2.16 175 386.347	ksf ksf Seats ksf	

TDM Strategies



B	Transit	
G	Education & Encouragement	
D	Commute Trip Reductions	
(3)	Shared Mobility	
3	Bicycle Infrastructure	
G	Neighborhood Enhancement	

Analysis Results

Proposed Project	With Mitigation
2,728	2,728
Daily Vehicle Trips	Daily Vehicle Trips
19,819	19,819
Daily VMT	Daily VMT
0.0	0.0
Houseshold VMT	Houseshold VMT
per Capita	per Capita
5.0	5.0
Work VMT	Work VMT
per Employee	per Employee
Significant '	VMT Impact?
Household: No	Household: No

Household: No	Household: No
Threshold = 6.0 15% Below APC	Threshold = 6.0 15% Below APC
Work: No	Work: No
Threshold = 7.6 15% Below APC	Threshold = 7.6 15% Below APC



Operational Energy Demand Alternative 4

Hollywood Center Operational Energy Demand

Alternative 4

Electricity	kWh/yr	GWh/yr	
City Park	11,430	0.011	
Fast Food Restaurant w/o Drive Thru	203,684	0.204	
Enclosed Parking with Elevator	4,085,000	4.085	
Hotel	1,190,120	1.190	
General Office Building	7,511,960	7.512	
High Turnover (Sit Down Restaurant)	1,154,240	1.154	
Other Non-Asphalt Surfaces	0	-	
User Defined Parking	0	-	
EV Charging (see worksheet)	234,637	0.235	
Total Building Energy	14,156,434	14.156	
Total	14,391,071	14.391	
Total (including water, see below)	15,612,221	15.612	

Source: California A	ir Resources B	oard, CalEEMod,	Version 2016.3.2.
----------------------	----------------	-----------------	-------------------

Electricity	GWh/yr
LADWP 2025-2026 Total Energy Sales	23,537
Project Annual	15.612
Net Project Annual	15.612221
Percent Net Project of LADWP	0.0663%

Source: Los Angeles Department of Water and Power, 2017 Long-Term Resource Plan, Appendix A, 2017.

Water		Mgal/yr		
City Park		24.33		
Fast Food Restaurant w/o Drive Thru		0.00 (included with High Turnoev	er (Sit Down Restaur
Enclosed Parking with Elevator		0.00		
Hotel		17.74		
General Office Building		37.42		
High Turnover (Sit Down Restaurant)		13.80		
Other Non-Asphalt Surfaces		0.00		
User Defined Parking		0.00		
Cooling Tower		0.49		
	Total	93.783		
Electricity Intensity Factors	k۱	Wh/Mgal		
Electricity Factor - Supply		9,727		
Electricity Factor - Treat		111		
Electricity Factor - Distribute		1,272		
Electricity Factor - Wastewater Treat	ment	1,911		
Electricity from Water Demand	kWh/yr	(GWh/yr	
	Total	1,221,150	1,221	

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.

 $Sewage\ Facilities\ Charge,\ Sewage\ Generation\ Factor\ for\ Residential\ and\ Commercial\ Categories,\ 2012.$

Natural Gas	kBtu/yr	cubic foot (cf)	
City Park	0	-	
Fast Food Restaurant w/o Drive Thru	1,064,530	1,028,531	
Enclosed Parking with Elevator	0	-	
Hotel	3,540,410	3,420,686	
General Office Building	5,576,910	5,388,319	
High Turnover (Sit Down Restaurant)	6,032,460	5,828,464	
Other Non-Asphalt Surfaces	0	-	
User Defined Parking	0	-	
Total	16,214,310	15,666,000	

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.

Conversion factor of 1,035 Btu per cubic foot based on United States Energy Information Administration data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, February 28, 2018,

 $https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm.\ Accessed\ March\ 2018.)$

million cubic foot (cf)
884,030
15.666
15.666000
0.00189

Source: California Gas and Electric Utilities, 2018 California Gas

Report, p. 103, 2018.

Hollywood Center Electric Vehicle Charging

Alternative 4

Estimated Electricity demand from Electric Vehicle Supply Equipment (EVSE)

Analysis Year:	2025
EMFAC2017 Vehicle Population Mix	
% Electric	2.2%

Source: CARB, EMFAC2017 (SCAQMD region, year 2025, aggregate vehicle fleet).

Land Use Type	Number of Parking Spaces	Percent of Spaces with Charging Stations	Average Charge (kWh/day) ^c	Days/Year	Electricity Demand (kWh/yr)
Enclosed Parking With Elevator	1,461	10.0%	4.4	365	234,637

Notes:

Conservatively assumes each private garage has two outlets/panels.

Assumes percent electric vehicle ownership is equal to the EMFAC2017 vehicle population mix. b.

Estimated based on reference sources listed below.

Source	Electricity Demand (million kWh)	CO2	CH4	N20	CO2e	MTCO2e (MT/yr)
EV Charging	0.2346	116,615	6.80	1.41	117,204	53.2

GHG	Intensity factor (lbs/MWh)
CO2	497
CH4	0.029
N2O	0.006

Sources:

US Department of Energy. Alternative Fuels Data Center, 2016. Hybrid and Plug-In Electric Vehicle Emissions Data Sources and Assumptions.

 $A vailable\ at: https://www.afdc.energy.gov/vehicles/electric_emissions_sources.html.$

US Department of Energy. Smith, Margaret, 2016. Level 1 Electric Vehicle Charging Stations at the Workplace.

 $A vailable\ at: https://www.afdc.energy.gov/uploads/publication/WPCC_L1ChargingAtTheWorkplace_0716.pdf.$

UCLA Luskin Center for Innovation. Williams, Brett and JR deShazo, 2013. Pricing Workplace Charging: Financial Viability and Fueling Costs.

Available at: http://luskin.ucla.edu/sites/default/files/Luskin-WPC-TRB-13-11-15d.pdf.

CalEEMod Version: CalEEMod.2016.3.2

Page 1 of 1

Date: 4/6/2020 4:34 PM

Alternative 4 Operational Energy - Los Angeles-South Coast County, Annual

Alternative 4 Operational Energy Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	603.06	1000sqft	1.51	603,060.00	0
Enclosed Parking with Elevator	1,461.00	Space	1.50	755,743.00	0
Other Non-Asphalt Surfaces	38.40	1000sqft	0.30	38,400.00	0
User Defined Parking	6.79	User Defined Unit	0.30	0.00	0
City Park	0.75	Acre	0.20	32,657.00	0
Fast Food Restaurant w/o Drive Thru	4.72	1000sqft	0.20	4,715.00	0
High Turnover (Sit Down Restaurant)	26.72	1000sqft	0.30	26,719.00	0
Hotel	324.00	Room	0.30	163,384.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Department	of Water & Power			
CO2 Intensity (lb/MWhr)	497	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0.0 (lb/MWhr)	006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017).

Land Use - Alternative 4 with estimated hotel gross square footage.

Energy Use - see operational assumptions. Lighting energy intensity of Parking Lot land use used as surrogate for public open space lighting energy intensity.

Water And Wastewater - see water demand spreadsheet and water supply assessment

Solid Waste - see operational assumptions

Energy Mitigation - Compared to 2016 Title 24 Building Energy Efficiency that is based off of 2013 Ashrae 90.1 Standards, the Project will be 11.6% more efficient than 2016 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	584,400.00	755,743.00
tblLandUse	LandUseSquareFeet	32,670.00	32,657.00
tblLandUse	LandUseSquareFeet	470,448.00	163,384.00
tblLandUse	LotAcreage	13.84	1.51
tblLandUse	LotAcreage	13.15	1.50
tblLandUse	LotAcreage	0.88	0.30
tblLandUse	LotAcreage	0.00	0.30
tblLandUse	LotAcreage	0.75	0.20
tblLandUse	LotAcreage	0.11	0.20
tblLandUse	LotAcreage	0.61	0.30
tblLandUse	LotAcreage	10.80	0.30
tblProjectCharacteristics	CO2IntensityFactor	1227.89	497

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	СО	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	3,191.361 9	3,191.3619	0.1862	0.0385	3,207.498 5	
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,358.938 2	3,358.9382	0.1960	0.0406	3,375.922 1	
NaturalGas Mitigated	0.0874	0.7948	0.6677	4.7700e- 003		0.0604	0.0604		0.0604	0.0604	0.0000	865.2573	865.2573	0.0166	0.0159	870.3991	
NaturalGas Unmitigated	0.0941	0.8554	0.7185	5.1300e- 003		0.0650	0.0650		0.0650	0.0650	0.0000	931.1725	931.1725	0.0179	0.0171	936.7060	

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s 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							
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Fast Food Restaurant w/o	1.08803e+ 006	5.8700e- 003	0.0533	0.0448	3.2000e- 004		4.0500e- 003	4.0500e- 003		4.0500e- 003	4.0500e- 003	0.0000	58.0616	58.0616	1.1100e- 003	1.0600e- 003	58.4066			
General Office Building	6.27785e+ 006	0.0339	0.3077	0.2585	1.8500e- 003		0.0234	0.0234		0.0234	0.0234	0.0000	335.0102	335.0102	6.4200e- 003	6.1400e- 003	337.0010			
High Turnover (Sit Down Restaurant)	6.16568e+ 006	0.0333	0.3022	0.2539	1.8100e- 003		0.0230	0.0230		0.0230	0.0230	0.0000	329.0240	329.0240	6.3100e- 003	6.0300e- 003	330.9792			
Hotel	3.91795e+ 006	0.0211	0.1921	0.1613	1.1500e- 003		0.0146	0.0146		0.0146	0.0146	0.0000	209.0766	209.0766	4.0100e- 003	3.8300e- 003	210.3191			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Total		0.0941	0.8554	0.7185	5.1300e- 003		0.0650	0.0650		0.0650	0.0650	0.0000	931.1725	931.1725	0.0179	0.0171	936.7060			

Total		0.0874	0.7948	0.6677	4.7600e- 003		0.0604	0.0604		0.0604	0.0604	0.0000	865.2573	865.2573	0.0166	0.0159	870.3991
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	Manager 1	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	3.54041e+ 006	0.0191	0.1736	0.1458	1.0400e- 003		0.0132	0.0132		0.0132	0.0132	0.0000	188.9300	188.9300	3.6200e- 003	3.4600e- 003	190.0527
High Turnover (Sit Down Restaurant)	= = =	0.0325	0.2957	0.2484	1.7700e- 003		0.0225	0.0225		0.0225	0.0225	0.0000	321.9153	321.9153	6.1700e- 003	5.9000e- 003	323.8282
General Office Building	5.57691e+ 006	0.0301	0.2734	0.2296	1.6400e- 003		0.0208	0.0208		0.0208	0.0208	0.0000	297.6049	297.6049	5.7000e- 003	5.4600e- 003	299.3735
Fast Food Restaurant w/o	1.06453e+ 006	5.7400e- 003	0.0522	0.0438	3.1000e- 004		3.9700e- 003	3.9700e- 003		3.9700e- 003	3.9700e- 003	0.0000	56.8072	56.8072	1.0900e- 003	1.0400e- 003	57.1447
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Land Use	kBTU/yr					ton	s/yr							МТ	/yr		
	NaturalGa s Use	ROG	NOx	СО	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

5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Γ/yr	
City Park	11429.9	2.5767	1.5000e- 004	3.0000e- 005	2.5897
Enclosed Parking with Elevator	006				1,003.423 5
Fast Food Restaurant w/o	208120	46.9176	2.7400e- 003	5.7000e- 004	47.1549
Building	7.83375e+ 006	1,766.0045	0.1031	0.0213	1,774.934 0
High Turnover (Sit Down Restaurant)	1.17938e+ 006	265.8733	0.0155	3.2100e- 003	267.2176
Hotel	1.23845e+ 006	279.1906	0.0163	3.3700e- 003	280.6023
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		3,358.9382	0.1960	0.0406	3,375.922 1

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M٦	Γ/yr	
City Park	11429.9		004	3.0000e- 005	
Enclosed Parking with Elevator	4.085e+00 6	920.9042	0.0537	0.0111	925.5606
Fast Food Restaurant w/o	203684	45.9177	2.6800e- 003	5.5000e- 004	46.1499
General Office Building	006				7
High Turnover (Sit Down Restaurant)	1.15424e+ 006	260.2067	0.0152	3.1400e- 003	261.5224
Hotel	006			003	
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		3,191.3619	0.1862	0.0385	3,207.498 5

Operational Energy Demand Alternative 7

Hollywood Center Operational Energy Demand

Alternative 7

kWh/yr	GWh/yr
8,715	0.009
7,675,010	7.675
13,243,000	13.243
1,363,710	1.364
440,847	0.441
22,290,435	22.290
22,731,282	22.731
23,784,496	23.784
	8,715 7,675,010 13,243,000 1,363,710 440,847 22,290,435 22,731,282

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.

0.00	0
0.00	0
65.9	7
14.43	2
0.49	9
	•
kWh/Mgal	
9,727	
111	
1,272	
1,911	
kWh/yr	GWh/yr
otal 1,053,214	1.053
	9,727 111 1,272 1,911

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.

 $Sewage\ Facilities\ Charge,\ Sewage\ Generation\ Factor\ for\ Residential\ and\ Commercial\ Categories,\ 2012.$

Natural Gas	kBtu/yr	cubic foot (cf)
City Park	0	-
Enclosed Parking with Elevator	0	-
General Office Building High Turnover (Sit Down Restaurant)	9,831,690 7,127,240	9,499,217 6,886,222
0	0	
Total	16,958,930	16,385,440

Source: California Air Resources Board, CalEEMod, Version 2016.3.2. Conversion factor of 1,035 Btu per cubic foot based on United States Energy Information Administration data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, February 28, 2018,

 $https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm.\ Accessed\ March\ 2018.)$

Electricity	GWh/yr
LADWP 2025-2026 Total Energy Sales	23,537
Project Annual	23.784
Net Project Annual	23.784496
Percent Net Project of LADWP	0.1011%

Source: Los Angeles Department of Water and Power, 2017 Long-Term Resource Plan, Appendix A, 2017.

Natural Gas	million cubic foot (cf)
SoCalGas 2025	884,030
Project Annual	16.385
Net Project Annual	16.385440
Percent Net Project of SoCalGas	0.0019%

Source: California Gas and Electric Utilities, 2018 California Gas

Report, p. 103, 2018.

Hollywood Center Electric Vehicle Charging

Alternative 7

Estimated Electricity demand from Electric Vehicle Supply Equipment (EVSE)

Analysis Year:	2025
EMFAC2017 Vehicle Population Mix	
% Electric	2.2%

Source: CARB, EMFAC2017 (SCAQMD region, year 2025, aggregate vehicle fleet).

Land Use Type	Number of Parking Spaces	Percent of Spaces with Charging Stations	Average Charge (kWh/day) ^c	Days/Year	Electricity Demand (kWh/yr)
Enclosed Parking With Elevator	2,745	10.0%	4.4	365	440,847

Notes:

Conservatively assumes each private garage has two outlets/panels.

Assumes percent electric vehicle ownership is equal to the EMFAC2017 vehicle population mix. b.

Estimated based on reference sources listed below.

_			GHG Emissions ((lbs/yr)		
Source	Electricity Demand (million kWh)	CO2	CH4	N20	CO2e	MTCO2e (MT/yr)
EV Charging	0.4408	219,101	12.78	2.65	220,209	99.9

GHG	Intensity factor (lbs/MWh)
CO2	497
CH4	0.029
N2O	0.006

Sources:

US Department of Energy. Alternative Fuels Data Center, 2016. Hybrid and Plug-In Electric Vehicle Emissions Data Sources and Assumptions.

 $A vailable\ at: https://www.afdc.energy.gov/vehicles/electric_emissions_sources.html.$

US Department of Energy. Smith, Margaret, 2016. Level 1 Electric Vehicle Charging Stations at the Workplace.

 $A vailable\ at: https://www.afdc.energy.gov/uploads/publication/WPCC_L1ChargingAtTheWorkplace_0716.pdf.$

UCLA Luskin Center for Innovation. Williams, Brett and JR deShazo, 2013. Pricing Workplace Charging: Financial Viability and Fueling Costs.

Available at: http://luskin.ucla.edu/sites/default/files/Luskin-WPC-TRB-13-11-15d.pdf.

CalEEMod Version: CalEEMod.2016.3.2

Page 1 of 1

Date: 4/3/2020 7:35 PM

Alternative 7 Operational Energy - Los Angeles-South Coast County, Annual

Alternative 7 Operational Energy Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,063.15	1000sqft	4.00	1,063,152.00	0
Enclosed Parking with Elevator	2,745.00	Space	0.20	1,419,909.00	0
City Park	0.57	Acre	0.20	24,900.00	0
High Turnover (Sit Down Restaurant)	31.57	1000sqft	0.18	31,568.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Department	of Water & Power			
CO2 Intensity (lb/MWhr)	497	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017).

Land Use - Alternative 7

Energy Use - Lighting Energy applied to open space (City Park).

Water And Wastewater - Alternative 7 Water and Wastewater

Energy Mitigation - LEED Gold or Equivalent.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	0.00	0.35
tblLandUse	LandUseSquareFeet	1,063,150.00	1,063,152.00
tblLandUse	LandUseSquareFeet	1,098,000.00	1,419,909.00
tblLandUse	LandUseSquareFeet	24,829.20	24,900.00
tblLandUse	LotAcreage	24.41	4.00
tblLandUse	LotAcreage	24.70	0.20
tblLandUse	LotAcreage	0.57	0.20
tblLandUse	LotAcreage	0.72	0.18
tblProjectCharacteristics	CO2IntensityFactor	1227.89	497

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	Category tons/yr									MT	/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,025.063 7	5,025.0637	0.2932	0.0607	5,050.472 1
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,305.202 5	5,305.2025	0.3096	0.0641	5,332.027 4
NaturalGas Mitigated	0.0915	0.8313	0.6983	4.9900e- 003		0.0632	0.0632		0.0632	0.0632	0.0000	904.9933	904.9933	0.0174	0.0166	910.3712
NaturalGas Unmitigated	0.0990	0.8996	0.7557	5.4000e- 003		0.0684	0.0684		0.0684	0.0684	0.0000	979.3350	979.3350	0.0188	0.0180	985.1547

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s 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	s/yr					MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	1.10674e+ 007	0.0597	0.5425	0.4557	3.2600e- 003		0.0412	0.0412		0.0412	0.0412	0.0000	590.5993	590.5993	0.0113	0.0108	594.1089
High Turnover (Sit Down Restaurant)	=	0.0393	0.3571	0.3000	2.1400e- 003		0.0271	0.0271		0.0271	0.0271	0.0000	388.7357	388.7357	7.4500e- 003	7.1300e- 003	391.0458
Total		0.0990	0.8996	0.7557	5.4000e- 003		0.0684	0.0684		0.0684	0.0684	0.0000	979.3350	979.3350	0.0188	0.0180	985.1547

	NaturalGa s 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	s/yr					MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	9.83169e+ 006	0.0530	0.4820	0.4048	2.8900e- 003		0.0366	0.0366		0.0366	0.0366	0.0000	524.6564	524.6564	0.0101	9.6200e- 003	527.7742
High Turnover (Sit Down Restaurant)	=	0.0384	0.3494	0.2935	2.1000e- 003		0.0266	0.0266		0.0266	0.0266	0.0000	380.3369	380.3369	7.2900e- 003	6.9700e- 003	382.5970
Total		0.0914	0.8313	0.6983	4.9900e- 003		0.0632	0.0632		0.0632	0.0632	0.0000	904.9933	904.9933	0.0174	0.0166	910.3712

5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Г/уг	
City Park	8715	1.9647	1.1000e- 004	2.0000e- 005	1.9746
Enclosed Parking with Elevator	8.32067e+ 006	1,875.7729	0.1095	0.0227	1,885.257 4
General Office Building	1.38103e+ 007	3,113.3406	0.1817	0.0376	3,129.082 7
High Turnover (Sit Down Restaurant)		314.1243	0.0183	3.7900e- 003	315.7126
Total		5,305.2025	0.3096	0.0641	5,332.027 4

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Г/уг	
City Park	8715	1.9647	1.1000e- 004	2.0000e- 005	1.9746
Enclosed Parking with Elevator	7.67501e+ 006	1,730.2180	0.1010	0.0209	1,738.966 6
General Office Building	1.3243e+0 07	2,985.4516	0.1742	0.0360	3,000.547 1
High Turnover (Sit Down Restaurant)	= :	307.4293	0.0179	3.7100e- 003	308.9838
Total		5,025.0637	0.2932	0.0607	5,050.472 1

Operational Energy Demand Alternative 8

Hollywood Center Operational Energy Demand

Alternative 8

Electricity	kWh/yr	GWh/yr
Apartments Mid Rise	524,152	0.524
City Park	11,921	0.012
Condo/Townhouse High Rise	3,234,500	3.235
Enclosed Parking with Elevator	6,693,050	6.693
General Office Building	5,643,681	5.644
High Turnover (Sit Down Restaurant)	1,172,430	1.172
Other Non-Asphalt Surfaces	0	-
User Defined Parking	0	-
EV Charging (see worksheet)	384,476	0.384
Total Building Energy	17,279,734	17.280
Total	17,664,210	17.664
Total (including water, see below)	19,132,037	19.132

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.

Water	N	lgal/yr	
Apartments Mid Rise		6.70	
City Park		29.97	
Condo/Townhouse High Rise		38.78	
Enclosed Parking with Elevator		0.00	
General Office Building		24.41	
High Turnover (Sit Down Restaurant)		12.37	
Other Non-Asphalt Surfaces		0.00	
User Defined Parking		0.00	
Cooling Tower		0.49	
	Total	112.728	
Electricity Intensity Factors	kW	h/Mgal	
Electricity Factor - Supply		9,727	
Electricity Factor - Treat		111	
Electricity Factor - Distribute		1,272	
Electricity Factor - Wastewater Treatme	ent	1,911	
Electricity from Water Demand	kWh/yr	GWh/yr	
	Total	1,467,827	1.468

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.

 $Sewage\ Facilities\ Charge,\ Sewage\ Generation\ Factor\ for\ Residential\ and\ Commercial\ Categories,\ 2012.$

Natural Gas	kBtu/yr	cubic foot (cf)
Apartments Mid Rise	1,158,190	1,119,024
City Park	0	-
Condo/Townhouse High Rise	6,705,290	6,478,541
Enclosed Parking with Elevator	0	-
General Office Building	4,189,889	4,048,202
High Turnover (Sit Down Restaurant)	6,127,520	5,920,309
Other Non-Asphalt Surfaces	0	-
User Defined Parking	0	-
Total	18,180,889	17,566,076

Source: California Air Resources Board, CalEEMod, Version 2016.3.2.

Conversion factor of 1,035 Btu per cubic foot based on United States Energy Information Administration data (see: USEIA, Natural Gas, Heat Content of Natural Gas Consumed, February 28, 2018,

 $https://www.eia.gov/dnav/ng/ng_cons_heat_a_EPG0_VGTH_btucf_a.htm.\ Accessed\ March\ 2018.)$

Electricity	GWh/yr
LADWP 2025-2026 Total Energy Sales	23,537
Project Annual	19.132
-	
Net Project Annual	19.132037
Percent Net Project of LADWP	0.0813%

Source: Los Angeles Department of Water and Power, 2017 Long-Term Resource Plan, Appendix A, 2017.

Natural Gas	million cubic foot (cf)
SoCalGas 2025	884,030
Project Annual	17.566
Net Project Annual	17.566076
Percent Net Project of SoCalGas	0.0020%

Source: California Gas and Electric Utilities, 2018 California Gas

Report, p. 103, 2018.

Hollywood Center Electric Vehicle Charging

Alternative 8

Estimated Electricity demand from Electric Vehicle Supply Equipment (EVSE)

Analysis Year:	2025
EMFAC2017 Vehicle Population Mix	
% Electric	2.2%

Source: CARB, EMFAC2017 (SCAQMD region, year 2025, aggregate vehicle fleet).

Land Use Type	Number of Parking Spaces	Percent of Spaces with Charging Stations	Average Charge (kWh/day) ^c	Days/Year	Electricity Demand (kWh/yr)
Enclosed Parking With Elevator	2,394	10.0%	4.4	365	384,476

Notes:

a. Conservatively assumes each private garage has two outlets/panels.

b. Assumes percent electric vehicle ownership is equal to the EMFAC2017 vehicle population mix.

c. Estimated based on reference sources listed below.

_			GHG Emissions ((lbs/yr)		
Source	Electricity Demand (million kWh)	CO2	CH4	N20	CO2e	MTCO2e (MT/yr)
EV Charging	0.3845	191,085	11.15	2.31	192,051	87.1

GHG	Intensity factor (lbs/MWh)
CO2	497
CH4	0.029
N2O	0.006

Sources:

US Department of Energy. Alternative Fuels Data Center, 2016. Hybrid and Plug-In Electric Vehicle Emissions Data Sources and Assumptions.

 $A vailable\ at: https://www.afdc.energy.gov/vehicles/electric_emissions_sources.html.$

US Department of Energy. Smith, Margaret, 2016. Level 1 Electric Vehicle Charging Stations at the Workplace.

 $A vailable\ at: https://www.afdc.energy.gov/uploads/publication/WPCC_L1ChargingAtTheWorkplace_0716.pdf.$

UCLA Luskin Center for Innovation. Williams, Brett and JR deShazo, 2013. Pricing Workplace Charging: Financial Viability and Fueling Costs.

Available at: http://luskin.ucla.edu/sites/default/files/Luskin-WPC-TRB-13-11-15d.pdf.

CalEEMod Version: CalEEMod.2016.3.2

Page 1 of 1

Date: 4/6/2020 2:27 AM

Alternative 8 Operational Energy - Los Angeles-South Coast County, Annual

Alternative 8 Operational Energy Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	66.73	1000sqft	0.10	66,728.00	0
General Office Building	386.35	1000sqft	2.19	386,347.00	0
Enclosed Parking with Elevator	2,394.00	Space	0.80	1,238,243.00	0
Other Non-Asphalt Surfaces	39.19	1000sqft	0.10	39,190.00	0
User Defined Parking	6.79	User Defined Unit	0.14	6,790.00	0
City Park	0.78	Acre	0.10	34,060.00	0
High Turnover (Sit Down Restaurant)	27.14	1000sqft	0.10	27,140.00	0
Apartments Mid Rise	133.00	Dwelling Unit	0.30	41,274.00	323
Condo/Townhouse High Rise	770.00	Dwelling Unit	0.65	754,441.00	1871

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Dep	partment of Water & Power			
CO2 Intensity	497	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 44% RPS by 2024.

Land Use - Alternative 8 Land Uses, with residential balconies and residential common areas. Population based on 2.43 people/du.

Water And Wastewater - Water based on proportional estimates from Project uses, except for General Office, which is based on CalEEMod defaults.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	113.05	0.00
tblFireplaces	NumberGas	654.50	0.00
tblFireplaces	NumberNoFireplace	13.30	0.00
tblFireplaces	NumberNoFireplace	77.00	0.00
tblFireplaces	NumberWood	6.65	0.00
tblFireplaces	NumberWood	38.50	0.00
tblLandUse	LandUseSquareFeet	386,350.00	386,347.00
tblLandUse	LandUseSquareFeet	66,730.00	66,728.00
tblLandUse	LandUseSquareFeet	957,600.00	1,238,243.00
tblLandUse	LandUseSquareFeet	0.00	6,790.00
tblLandUse	LandUseSquareFeet	33,976.80	34,060.00
tblLandUse	LandUseSquareFeet	133,000.00	41,274.00
tblLandUse	LandUseSquareFeet	770,000.00	754,441.00
tblLandUse	LotAcreage	8.87	2.19
tblLandUse	LotAcreage	1.53	0.10

tblLandUse	LotAcreage	21.55	0.80
tblLandUse	LotAcreage	0.90	0.10
tblLandUse	LotAcreage	0.00	0.14
tblLandUse	LotAcreage	0.78	0.10
tblLandUse	LotAcreage	0.62	0.10
tblLandUse	LotAcreage	3.50	0.30
tblLandUse	LotAcreage	12.03	0.65
tblLandUse	Population	380.00	323.00
tblLandUse	Population	2,202.00	1,871.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	497

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	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,895.464 6	3,895.4646	0.2273	0.0470	3,915.161 4
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,086.539 6	4,086.5396	0.2385	0.0493	4,107.202 5
NaturalGas Mitigated	0.0980	0.8681	0.5790	5.3500e- 003		0.0677	0.0677		0.0677	0.0677	0.0000	970.2013	970.2013	0.0186	0.0178	975.9667
NaturalGas Unmitigated	0.1041	0.9217	0.6153	5.6800e- 003		0.0719	0.0719		0.0719	0.0719	0.0000	1,030.040 7	1,030.0407	0.0197	0.0189	1,036.161 7

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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					ton	s/yr							МТ	√yr		
Apartments Mid Rise	1.22585e+ 006	6.6100e- 003	0.0565	0.0240	3.6000e- 004		4.5700e- 003	4.5700e- 003		4.5700e- 003	4.5700e- 003	0.0000	65.4162	65.4162	1.2500e- 003	1.2000e- 003	65.8049
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhous e High Rise	7.09704e+ 006	0.0383	0.3270	0.1392	2.0900e- 003		0.0264	0.0264		0.0264	0.0264	0.0000	378.7253	378.7253	7.2600e- 003	6.9400e- 003	380.9759
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	4.02187e+ 006	0.0217	0.1972	0.1656	1.1800e- 003		0.0150	0.0150		0.0150	0.0150	0.0000	214.6224	214.6224	4.1100e- 003	3.9300e- 003	215.8978
General Office Building	694638	3.7500e- 003	0.0341	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003	0.0000	37.0686	37.0686	7.1000e- 004	6.8000e- 004	37.2888
High Turnover (Sit Down Restaurant)	6.26283e+ 006	0.0338	0.3070	0.2579	1.8400e- 003		0.0233	0.0233		0.0233	0.0233	0.0000	334.2083	334.2083	6.4100e- 003	6.1300e- 003	336.1943
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.1041	0.9217	0.6153	5.6700e- 003		0.0719	0.0719		0.0719	0.0719	0.0000	1,030.0407	1,030.040 7	0.0197	0.0189	1,036.161 7

	NaturalGa s 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					ton	s/yr							МТ	/yr		
Apartments Mid Rise	1.15819e+ 006	6.2500e- 003	0.0534	0.0227	3.4000e- 004		4.3100e- 003	4.3100e- 003		4.3100e- 003	4.3100e- 003	0.0000	61.8053	61.8053	1.1800e- 003	1.1300e- 003	62.1725
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhous e High Rise	6.70529e+ 006	0.0362	0.3090	0.1315	1.9700e- 003		0.0250	0.0250		0.0250	0.0250	0.0000	357.8199	357.8199	6.8600e- 003	6.5600e- 003	359.9462
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	Duning	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3.57281e+ 006	0.0193	0.1751	0.1471	1.0500e- 003		0.0133	0.0133		0.0133	0.0133	0.0000	190.6589	190.6589	3.6500e- 003	3.5000e- 003	191.7919
General Office Building	617079	3.3300e- 003	0.0303	0.0254	1.8000e- 004		2.3000e- 003	2.3000e- 003		2.3000e- 003	2.3000e- 003	0.0000	32.9297	32.9297	6.3000e- 004	6.0000e- 004	33.1254
High Turnover (Sit Down Restaurant)	6.12752e+ 006	0.0330	0.3004	0.2523	1.8000e- 003		0.0228	0.0228	D	0.0228	0.0228	0.0000	326.9875	326.9875	6.2700e- 003	5.9900e- 003	328.9307
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0981	0.8681	0.5790	5.3400e- 003		0.0677	0.0677		0.0677	0.0677	0.0000	970.2013	970.2013	0.0186	0.0178	975.9667

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr			Γ/yr	
Apartments Mid Rise	526691	118.7347	6.9300e- 003	1.4300e- 003	119.3351
City Park	11921	2.6874	004	3.0000e- 005	
Condo/Townhous e High Rise	3.2492e+0 06	732.4847	0.0427	8.8400e- 003	
Enclosed Parking with Elevator	06				1,644.053 8
General Office Building	5.01865e+ 006	1,131.3809	0.0660	0.0137	1,137.101 5
General Office Building	866797	195.4067	0.0114	2.3600e- 003	196.3947
High Turnover (Sit Down Restaurant)	1.19796e+ 006	270.0625	0.0158	3.2600e- 003	271.4280
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		4,086.5396	0.2385	0.0493	4,107.202 5



	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Γ/yr	
Apartments Mid Rise	524152	118.1625	6.8900e- 003	1.4300e- 003	118.7599
City Park	11921	2.6874	1.6000e- 004	005	2.7010
Condo/Townhous e High Rise	3.2345e+0 06	729.1715	0.0426	8.8000e- 003	732.8585
Enclosed Parking with Elevator	6.69305e+ 006	1,508.8505	0.0880	0.0182	1,516.479 7
Building	4.81249e+ 006	1,084.9063	0.0633	0.0131	1,090.391 9
General Office Building				003	188.3273
High Turnover (Sit Down Restaurant)	1.17243e+ 006		0.0154	3.1900e- 003	
Other Non-Asphalt Surfaces		0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		3,895.4646	0.2273	0.0470	3,915.161 4

CalEEMod Version: CalEEMod.2016.3.2

Page 1 of 1

Date: 4/6/2020 2:27 AM

Alternative 8 Operational Energy - Los Angeles-South Coast County, Annual

Alternative 8 Operational Energy Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	66.73	1000sqft	0.10	66,728.00	0
General Office Building	386.35	1000sqft	2.19	386,347.00	0
Enclosed Parking with Elevator	2,394.00	Space	0.80	1,238,243.00	0
Other Non-Asphalt Surfaces	39.19	1000sqft	0.10	39,190.00	0
User Defined Parking	6.79	User Defined Unit	0.14	6,790.00	0
City Park	0.78	Acre	0.10	34,060.00	0
High Turnover (Sit Down Restaurant)	27.14	1000sqft	0.10	27,140.00	0
Apartments Mid Rise	133.00	Dwelling Unit	0.30	41,274.00	323
Condo/Townhouse High Rise	770.00	Dwelling Unit	0.65	754,441.00	1871

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Dep	partment of Water & Power			
CO2 Intensity	497	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity 0 (Ib/MWhr)	.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 Intensity Factor: California Air Resources Board, Statewide Emission Factors (EF) For Use With AB 900 Projects (Jan 2017). Linearly adjusted to 44% RPS by 2024.

Land Use - Alternative 8 Land Uses, with residential balconies and residential common areas. Population based on 2.43 people/du.

Water And Wastewater - Water based on proportional estimates from Project uses, except for General Office, which is based on CalEEMod defaults.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	0.00	0.35
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	113.05	0.00
tblFireplaces	NumberGas	654.50	0.00
tblFireplaces	NumberNoFireplace	13.30	0.00
tblFireplaces	NumberNoFireplace	77.00	0.00
tblFireplaces	NumberWood	6.65	0.00
tblFireplaces	NumberWood	38.50	0.00
tblLandUse	LandUseSquareFeet	386,350.00	386,347.00
tblLandUse	LandUseSquareFeet	66,730.00	66,728.00
tblLandUse	LandUseSquareFeet	957,600.00	1,238,243.00
tblLandUse	LandUseSquareFeet	0.00	6,790.00
tblLandUse	LandUseSquareFeet	33,976.80	34,060.00
tblLandUse	LandUseSquareFeet	133,000.00	41,274.00
tblLandUse	LandUseSquareFeet	770,000.00	754,441.00
tblLandUse	LotAcreage	8.87	2.19
tblLandUse	LotAcreage	1.53	0.10

tblLandUse	LotAcreage	21.55	0.80
tblLandUse	LotAcreage	0.90	0.10
tblLandUse	LotAcreage	0.00	0.14
tblLandUse	LotAcreage	0.78	0.10
tblLandUse	LotAcreage	0.62	0.10
tblLandUse	LotAcreage	3.50	0.30
tblLandUse	LotAcreage	12.03	0.65
tblLandUse	Population	380.00	323.00
tblLandUse	Population	2,202.00	1,871.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	497

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	s/yr							MT	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,895.464 6	3,895.4646	0.2273	0.0470	3,915.161 4
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,086.539 6	4,086.5396	0.2385	0.0493	4,107.202 5
NaturalGas Mitigated	0.0980	0.8681	0.5790	5.3500e- 003		0.0677	0.0677		0.0677	0.0677	0.0000	970.2013	970.2013	0.0186	0.0178	975.9667
NaturalGas Unmitigated	0.1041	0.9217	0.6153	5.6800e- 003		0.0719	0.0719		0.0719	0.0719	0.0000	1,030.040 7	1,030.0407	0.0197	0.0189	1,036.161 7

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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					ton	s/yr							МТ	√yr		
Apartments Mid Rise	1.22585e+ 006	6.6100e- 003	0.0565	0.0240	3.6000e- 004		4.5700e- 003	4.5700e- 003		4.5700e- 003	4.5700e- 003	0.0000	65.4162	65.4162	1.2500e- 003	1.2000e- 003	65.8049
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhous e High Rise	7.09704e+ 006	0.0383	0.3270	0.1392	2.0900e- 003		0.0264	0.0264		0.0264	0.0264	0.0000	378.7253	378.7253	7.2600e- 003	6.9400e- 003	380.9759
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	4.02187e+ 006	0.0217	0.1972	0.1656	1.1800e- 003		0.0150	0.0150		0.0150	0.0150	0.0000	214.6224	214.6224	4.1100e- 003	3.9300e- 003	215.8978
General Office Building	694638	3.7500e- 003	0.0341	0.0286	2.0000e- 004		2.5900e- 003	2.5900e- 003		2.5900e- 003	2.5900e- 003	0.0000	37.0686	37.0686	7.1000e- 004	6.8000e- 004	37.2888
High Turnover (Sit Down Restaurant)	6.26283e+ 006	0.0338	0.3070	0.2579	1.8400e- 003		0.0233	0.0233		0.0233	0.0233	0.0000	334.2083	334.2083	6.4100e- 003	6.1300e- 003	336.1943
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.1041	0.9217	0.6153	5.6700e- 003		0.0719	0.0719		0.0719	0.0719	0.0000	1,030.0407	1,030.040 7	0.0197	0.0189	1,036.161 7

	NaturalGa s 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					ton	s/yr							МТ	/yr		
Apartments Mid Rise	1.15819e+ 006	6.2500e- 003	0.0534	0.0227	3.4000e- 004		4.3100e- 003	4.3100e- 003		4.3100e- 003	4.3100e- 003	0.0000	61.8053	61.8053	1.1800e- 003	1.1300e- 003	62.1725
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhous e High Rise	6.70529e+ 006	0.0362	0.3090	0.1315	1.9700e- 003		0.0250	0.0250		0.0250	0.0250	0.0000	357.8199	357.8199	6.8600e- 003	6.5600e- 003	359.9462
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	Dunium	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3.57281e+ 006	0.0193	0.1751	0.1471	1.0500e- 003		0.0133	0.0133		0.0133	0.0133	0.0000	190.6589	190.6589	3.6500e- 003	3.5000e- 003	191.7919
General Office Building	617079	3.3300e- 003	0.0303	0.0254	1.8000e- 004		2.3000e- 003	2.3000e- 003		2.3000e- 003	2.3000e- 003	0.0000	32.9297	32.9297	6.3000e- 004	6.0000e- 004	33.1254
High Turnover (Sit Down Restaurant)	6.12752e+ 006	0.0330	0.3004	0.2523	1.8000e- 003		0.0228	0.0228	D	0.0228	0.0228	0.0000	326.9875	326.9875	6.2700e- 003	5.9900e- 003	328.9307
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0981	0.8681	0.5790	5.3400e- 003		0.0677	0.0677		0.0677	0.0677	0.0000	970.2013	970.2013	0.0186	0.0178	975.9667

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e	
Land Use	kWh/yr	MT/yr				
Apartments Mid Rise	526691	118.7347	6.9300e- 003	1.4300e- 003	119.3351	
City Park	11921	2.6874	004	3.0000e- 005		
Condo/Townhous e High Rise	3.2492e+0 06	732.4847	0.0427	8.8400e- 003		
Enclosed Parking with Elevator	06				1,644.053 8	
General Office Building	5.01865e+ 006	1,131.3809	0.0660	0.0137	1,137.101 5	
General Office Building	866797	195.4067	0.0114	2.3600e- 003	196.3947	
High Turnover (Sit Down Restaurant)	1.19796e+ 006	270.0625	0.0158	3.2600e- 003	271.4280	
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000	
Total		4,086.5396	0.2385	0.0493	4,107.202 5	



	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	Γ/yr	
Apartments Mid Rise	524152	118.1625	6.8900e- 003	1.4300e- 003	118.7599
City Park	11921	2.6874	004	3.0000e- 005	2.7010
Condo/Townhous e High Rise	3.2345e+0 06	729.1715	0.0426	8.8000e- 003	732.8585
Enclosed Parking with Elevator	6.69305e+ 006	1,508.8505	0.0880	0.0182	1,516.479 7
Building	4.81249e+ 006	1,084.9063	0.0633	0.0131	1,090.391 9
General Office Building	831191	187.3798	0.0109	2.2600e- 003	188.3273
High Turnover (Sit Down Restaurant)	1.17243e+ 006	264.3066	0.0154	3.1900e- 003	265.6431
Other Non-Asphalt Surfaces		0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		3,895.4646	0.2273	0.0470	3,915.161 4