

Appendix F  
**Greenhouse Gas Emissions  
Assumptions and Modeling**



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# **Construction Greenhouse Gas Emissions**

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<b>3.25. BC: Street Improvements (2025) - Unmitigated</b>	
Off-road Equipment	31.5
Worker	5.61
Vendor	11.6
Hauling	0
<b>3.27. BC: Roberts Sports Bowl Utilities (2024) - Unmitigated</b>	
Off-road Equipment	3.1
Worker	0.31
Vendor	0.63
Hauling	0
<b>3.29. BC: Roberts Sports Bowl Utilities (2025) - Unmitigated</b>	
Off-road Equipment	43.8
Worker	4.26
Vendor	8.8
Hauling	0
<b>3.31. BC: Pathways + Parking (2025) - Unmitigated</b>	
Off-road Equipment	18.7
Worker	8.42
Vendor	9.66
Hauling	21.1
<b>3.33. BC: Tunnel (2024) - Unmitigated</b>	
Off-road Equipment	4.73
Worker	1
Vendor	1.05
Hauling	0
<b>3.35. BC: Tunnel (2025) - Unmitigated</b>	
Off-road Equipment	78.1
Worker	16.1
Vendor	17.1
Hauling	0
<b>3.37. Arch Coating: Structures (2025) - Unmitigated</b>	
Off-road Equipment	3.76
Worker	2.46
Vendor	0
Hauling	0
<b>3.39. Arch Coating: Street Improvements (2025) - Unmitigated</b>	
Off-road Equipment	2.81
Worker	0.42
Vendor	0.29
Hauling	0

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# **Operational Greenhouse Gas Emissions**

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## Project Operational GHG Emissions

### Annual MT CO2e

Source	
Mobile	974
Area	1.02
Energy	230
Water	64.8
Waste	0.43
Refrig.	0.05
Total	1270

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# **CalEEMod Assumptions and Output**

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# Claremont McKenna Phase 1 Construction Detailed Report

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##### 4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

#### 5. Activity Data

##### 5.1. Construction Schedule

##### 5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

##### 5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated



5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

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7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	Claremont McKenna Phase 1 Construction
Construction Start Date	8/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	2.40
Location	34.10354503733571, -117.7007727686169
County	San Bernardino-South Coast
City	Upland
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5227
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.24

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Arena	50.0	1000sqft	16.1	50,000	0.00	0.00	—	—

































































































































































































Construction: Trips and VMT	Project Specific Information, Updated Trips
Construction: Off-Road Equipment EF	Crushing/Proc. Equipment Change

# Claremont McKenna Phase 2 Construction Detailed Report

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  - 3.4. Grading: Roberts Sport Bowl (Rough) (2030) - Mitigated
  - 3.5. Grading: Roberts Sport Bowl (Rough) (2031) - Unmitigated







7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

















































































Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	64.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	88.7
Physically Disabled	99.2
Heart Attack ER Admissions	43.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	5.3
SLR Inundation Area	0.0



Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

## 8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Project Specific Information
Construction: Off-Road Equipment	Project Specific Equipment, Tier 4 Final
Construction: Dust From Material Movement	Project Specific Information
Construction: Trips and VMT	Project Specific Information, Updated Trips
Construction: Off-Road Equipment EF	Crushing/Proc. Equipment Change to Diesel

# Claremont McKenna | Operations v2 Detailed Report

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    - 4.1.2. Mitigated
  - 4.2. Energy
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5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

































































AQ-Ozone	88.7
AQ-PM	95.3
AQ-DPM	80.9
Drinking Water	97.1
Lead Risk Housing	31.1
Pesticides	2.66
Toxic Releases	58.9
Traffic	29.8
Effect Indicators	—
CleanUp Sites	43.6
Groundwater	10.6
Haz Waste Facilities/Generators	46.8
Impaired Water Bodies	12.5
Solid Waste	39.3
Sensitive Population	—
Asthma	60.1
Cardio-vascular	70.9
Low Birth Weights	64.5
Socioeconomic Factor Indicators	—
Education	40.1
Housing	69.5
Linguistic	54.6
Poverty	64.9
Unemployment	29.4

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	19.74849224
Employed	14.1537277
Median HI	26.85743616
Education	—
Bachelor's or higher	76.02977031
High school enrollment	100
Preschool enrollment	57.52598486
Transportation	—
Auto Access	68.11240857
Active commuting	41.48594893
Social	—
2-parent households	77.65943796
Voting	45.33555755
Neighborhood	—
Alcohol availability	19.50468369
Park access	37.14872321
Retail density	77.55678173
Supermarket access	43.19260875
Tree canopy	13.34530989
Housing	—
Homeownership	1.539843449
Housing habitability	40.93417169
Low-inc homeowner severe housing cost burden	99.12742205
Low-inc renter severe housing cost burden	59.36096497
Uncrowded housing	43.53907353

Health Outcomes	—
Insured adults	61.15744899
Arthritis	95.5
Asthma ER Admissions	15.4
High Blood Pressure	94.6
Cancer (excluding skin)	93.3
Asthma	32.2
Coronary Heart Disease	96.0
Chronic Obstructive Pulmonary Disease	81.8
Diagnosed Diabetes	90.6
Life Expectancy at Birth	49.1
Cognitively Disabled	80.8
Physically Disabled	93.4
Heart Attack ER Admissions	12.7
Mental Health Not Good	41.5
Chronic Kidney Disease	95.6
Obesity	49.6
Pedestrian Injuries	90.3
Physical Health Not Good	66.1
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	13.6
Current Smoker	40.7
No Leisure Time for Physical Activity	62.9
Climate Change Exposures	—
Wildfire Risk	8.7
SLR Inundation Area	0.0

Children	1.1
Elderly	90.4
English Speaking	26.8
Foreign-born	58.5
Outdoor Workers	62.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	65.5
Traffic Density	40.2
Traffic Access	55.1
Other Indices	—
Hardship	50.3
Other Decision Support	—
2016 Voting	48.9

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	71.0
Healthy Places Index Score for Project Location (b)	38.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

## 8. User Changes to Default Data

Screen	Justification
Land Use	Project Specific
Operations: Vehicle Data	Project Adjusted Vehicle Trip Rates