
**CALINE4 CO Emissions Calculations Without
Hayward Extension**

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title: CSU Hayward Campus Master Plan-No Hayward Connection
 Intersection: Carlos Bee Blvd./Hayward Blvd
 Analysis Condition: Cumulative Plus Project
 Nearest Air Monitoring Station measuring CO: 40733 Chapel Way in Fremont
 Background 1-hour CO Concentration (ppm): 2.9
 Background 8-hour CO Concentration (ppm): 1.8
 Persistence Factor: 0.7
 Analysis Year: 2030

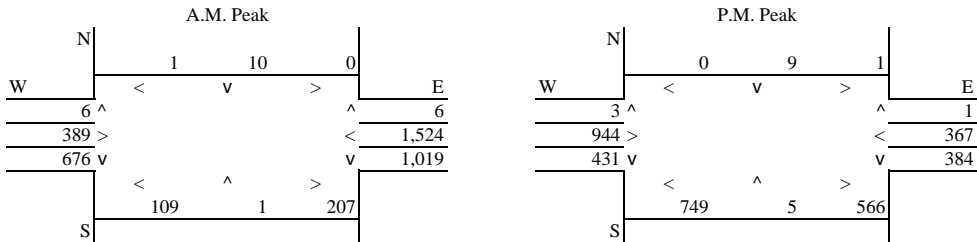
Roadway Type	No. of Lanes	Approach/Departure Speed	
		A.M.	P.M.
North-South Roadway: Carlos Bee	8	5	5
East-West Roadway: Hayward Blvd	4	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Air County: All
 Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

Year	Average Speed (miles per hour)									
	5	8	11	14	17	20	23	26	29	32
2007	4		5		5		5	4	4	4
2008	5	4	5	4	5	5	5	4	5	4
2009	5		5	4	5	5	5	4	5	4
2010			5	5	4	5		5	4	4
2011	4	4	5	4	5		4	5	4	4
2012		5	4	4	5			5	4	5
2013	5	4	4	4	5				4	4
2014	4	4	5	5	4			4	5	4
2015	5		4				5		4	5
2020	4				5	4	4	5	4	5
2025	4		4	5	5	4	4	5	4	5
2030	5	5	4	5	5	5		5		5

PEAK HOUR TURNING VOLUMES



Representative Traffic Volumes (Vehicles per Hour)

N-S Road

2,022

N-S Road

2,144

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title:

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title: CSU Hayward Campus Master Plan-No Hayward Connection
 Intersection: Harder Rd./West Loop Rd
 Analysis Condition: Cumulative Plus Project
 Nearest Air Monitoring Station measuring CO: 40733 Chapel Way in Fremont
 Background 1-hour CO Concentration (ppm): 2.9
 Background 8-hour CO Concentration (ppm): 1.8
 Persistence Factor: 0.7
 Analysis Year: 2030

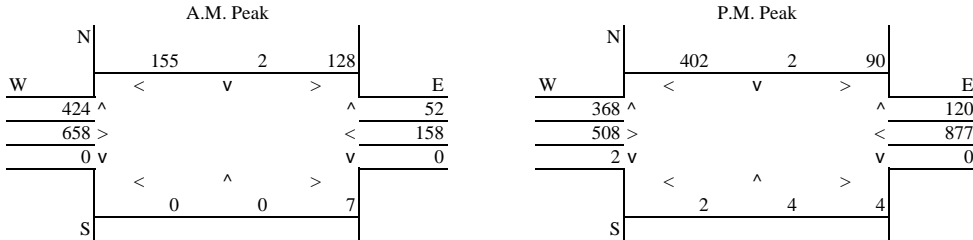
Roadway Type	No. of Lanes	Approach/Departure Speed	
		A.M.	P.M.
North-South Roadway: West Loop Road	2	5	5
East-West Roadway: Harder Road	4	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Air County: All
 Assumes lowest mean wintertime temperature of 40 degrees F and 30% humidity.

Year	Average Speed (miles per hour)									
	5	8	11	14	17	20	23	26	29	32
2007	4		5		5		5	4	4	4
2008	5	4	5	4	5	5	5	4	5	4
2009	5		5	4	5	5	5	4	5	4
2010			5	5	4	5		5	4	4
2011	4	4	5	4	5		4	5	4	4
2012		5	4	4	5		4	5		5
2013	5	4	4	4	5				4	4
2014	4	4	5	5	4			4	5	4
2015	5		4				5		4	5
2020	4				5	4	4	5	4	5
2025	5	5	4	5	5	4	4	5		5
2030	5				5	5		5		5

PEAK HOUR TURNING VOLUMES



Representative Traffic Volumes (Vehicles per Hour)

N-S Road

761

N-S Road

986

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title: CSU Hayward Campus Master Plan-No Hayward Connection
 Intersection: Foothill Blvd./Mattox Rd./Castro Valley Blvd
 Analysis Condition: Cumulative Plus Project
 Nearest Air Monitoring Station measuring CO: 40733 Chapel Way in Fremont
 Background 1-hour CO Concentration (ppm): 2.9
 Background 8-hour CO Concentration (ppm): 1.8
 Persistence Factor: 0.7
 Analysis Year: 2030

	Roadway Type	No. of Lanes	Approach/Departure Speed	
			A.M.	P.M.
North-South Roadway: Foothill Blvd	AT GRADE	4	5	5
East-West Roadway: Mattox Road	AT GRADE	4	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay A0

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title: CSU Hayward Campus Master Plan-No Hayward Connection
 Intersection: Foothill Blvd./Grove Way
 Analysis Condition: Cumulative Plus Project
 Nearest Air Monitoring Station measuring CO: 40733 Chapel Way in Fremont
 Background 1-hour CO Concentration (ppm): 2.9
 Background 8-hour CO Concentration (ppm): 1.8
 Persistence Factor: 0.7
 Analysis Year: 2030

		Roadway Type	No. of Lanes	Approach/Departure Speed	
				A.M.	P.M.
North-South Roadway:	Foothill Blvd	AT GRADE	6	5	5
East-West Roadway:	Grove Way	AT GRADE	2	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Area

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title:	CSU Hayward Campus Master Plan-No Hayward Connection
Intersection:	Foothill Blvd./D St
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	40733 Chapel Way in Fremont
Background 1-hour CO Concentration (ppm):	2.9

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title:
Intersection:

CSU Hayward Campus Master Plan-No Hayward Connection
Foothill Blvd./Mission Blvd./Jackson St./E St

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC 200

Project Title: CSU Hayward Campus Master Plan-No Hayward Connection
 Intersection: Mission Blvd./Highland Blvd
 Analysis Condition: Cumulative Plus Project
 Nearest Air Monitoring Station measuring CO: 40733 Chapel Way in Fremont
 Background 1-hour CO Concentration (ppm): 2.9
 Background 8-hour CO Concentration (ppm): 1.8
 Persistence Factor: 0.7
 Analysis Year: 2030

		Roadway Type	No. of Lanes	Approach/Departure Speed	
				A.M.	P.M.
North-South Roadway:	Mission Blvd	AT GRADE	4	5	5
East-West Roadway:	Highland Blvd	AT GRADE	2	5	5

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC 200

Project Title: CSU Hayward Campus Master Plan-No Hayward Connection
Intersection: Mission Blvd./Harder Rd
Analysis Condition: Cumulative Plus Project
Nearest Air Monitoring Station measuring CO: 40733 Chapel Way in Fremont
Background 1-hour CO Concentration (ppm): 2.9
Background 8-hour CO Concentration (ppm): 1.8
Persistence Factor: 0.7
Analysis Year: 2030

North-South Roadway:	Mission Blvd	Roadway Type	No. of Lanes	Approach/Departure Speed	
				A.M.	P.M.
		AT GRADE	4	5	5

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title:	CSU Hayward Campus Master Plan-No Hayward Connection
Intersection:	Jackson St./Santa Clara St./Harder Rd
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	40733 Chapel Way in Fremont
Background 1-hour CO Concentration (ppm):	2.9
Background 8-hour CO Concentration (ppm):	1.8