

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title:	CSU Hayward Campus Master Plan-Hayward Connection
Intersection:	Carlos Bee Blvd./Hayward Blvd
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	40733 Chapel Way in Fremont

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC2007

Project Title: CSU Hayward Campus Master Plan-Hayward Connection
 Intersection: Carlos Bee Blvd./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	AT GRADE	2	5	5
East-West Roadway:	Carlos Bee	AT GRADE	4	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

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

	Average Speed (miles per hour)										
Year	4	5	8	11	14	17	20	23	26	29	32
2007	4	4		5		5	5	4	5	4	4
2008	4	5		5		5	5	4	5	4	4
2009	4	5		5		5	5	5	5	4	4

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC2007

Project Title: CSU Hayward Campus Master Plan-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	AT GRADE	2	5	5
East-West Roadway:	Harder Road	AT GRADE	4	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

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

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

PEAK HOUR TURNING VOLUMES

A.M. Peak					P.M. Peak				
N					N				
	155	2	114			402	2	93	
W	<	v	>	E	W	<	v	>	E

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title:	CSU Hayward Campus Master Plan-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

Project Title:	CSU Hayward Campus Master Plan-Hayward Connection
Intersection:	Foothill Blvd./A 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
Background 8-hour CO Concentration (ppm):	1.8
Persistence Factor:	0.7
Analysis Year:	2030

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title:

CSU Hayward Campus Master Plan-Hayward Connection

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC2007

Project Title: CSU Hayward Campus Master Plan-Hayward Connection
 Intersection: Foothill Blvd./Mission Blvd./Jackson St./E 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
 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:	Jackson/Foothill	AT GRADE	2	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

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

Year	Average Speed (miles per hour)									
	4	5	8	11	14	17	20	23	26	29
2007	44	45	44	8	11	14	17	20	23	26
2008	44	45	44	8	11	14	17	20	23	26
2009	44	45	44	8	11	14	17	20	23	26
2010	44	45	44	8	11	14	17	20	23	26
2011	44	45	44	8	11	14	17	20	23	26
2012	44	45	44	8	11	14	17	20	23	26
2013	44	45	44	8	11	14	17	20	23	26
2014	44	45	44	8	11	14	17	20	23	26
2015	44	45	44	8	11	14	17	20	23	26

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC200

Project Title:	CSU Hayward Campus Master Plan-Hayward Connection
Intersection:	Mission Blvd./Highland Blvd
Analysis Condition:	Cumulative Plus Project
Nearest Air Monitoring Station measuring CO:	40733 Chapel Way in Fremont

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC2007

Project Title: CSU Hayward Campus Master Plan-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

		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	4	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Area 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	5	5	5	5	5	5	5	5	5	5
2008	5	5	5	5	5	5	5	5	5	5
2009	5	5	5	5	5	5	5	5	5	5
2010	5	5	5	5	5	5	5	5	5	5
2011	5	5	5	5	5	5	5	5	5	5
2012	5	5	5	5	5	5	5	5	5	5
2013	5	5	5	5	5	5	5	5	5	5
2014	5	5	5	5	5	5	5	5	5	5
2015	5	5	5	5	5	5	5	5	5	5
2020	5	5	5	5	5	5	5	5	5	5
2025	5	5	5	5	5	5	5	5	5	5
2030	5	5	5	5	5	5	5	5	5	5

PEAK HOUR TURNING VOLUMES

A.M. Peak			
N	175	2,394	115
W	<	v	>
202 ^			83
423 >			255
308 v			451
	<	^	>
S	571	2,165	804

P.M. Peak			
N	170	2,283	207
W	<	v	>
249 ^			93
436 >			351
512 v			657
	<	^	>
S	449	2,635	679

Representative Traffic Volumes (Vehicles per Hour)

N-S Road 6,693 N-S Road 7,215

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC2007

Project Title: CSU Hayward Campus Master Plan-Hayward Connection
 Intersection: Mission Blvd./Tennyson 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:	Mission Blvd	AT GRADE	4	5	5
East-West Roadway:	Highland Blvd	AT GRADE	4	5	5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

Air Basin: San Francisco Bay Area 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	5	5	5	5	5	5	5	5	5	5
2008	5	5	5	5	5	5	5	5	5	5
2009	5	5	5	5	5	5	5	5	5	5
2010	5	5	5	5	5	5	5	5	5	5
2011	5	5	5	5	5	5	5	5	5	5
2012	5	5	5	5	5	5	5	5	5	5
2013	5	5	5	5	5	5	5	5	5	5
2014	5	5	5	5	5	5	5	5	5	5
2015	5	5	5	5	5	5	5	5	5	5
2020	5	5	5	5	5	5	5	5	5	5
2025	5	5	5	5	5	5	5	5	5	5
2030	5	5	5	5	5	5	5	5	5	5

PEAK HOUR TURNING VOLUMES

A.M. Peak			
N	610	2,570	40
W	<	v	>
E	658	155	41
S	247	18	571
	<	^	>
	571	2,231	9

P.M. Peak			
N	476	2,433	208
W	<	v	>
E	763	100	269
S	378	9	419
	<	^	>
	419	3,058	19

Representative Traffic Volumes (Vehicles per Hour)

N-S Road 6,264 N-S Road 7,038

BAY AREA AQMD SIMPLIFIED CALINE ANALYSIS UPDATED WITH EMFAC2007

Project Title: CSU Hayward Campus Master Plan-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
Persistence Factor: 0.7
Analysis Year: 2030

			Approach/Departure	
			No. of	Speed
		Roadway Type	Lanes	A.M. P.M.
North-South Roadway:	Jackson Street	AT GRADE	6	5 5
East-West Roadway:	Harder Road	AT GRADE	4	5 5

EMFAC2007 COMPOSITE EMISSION FACTORS FOR CO

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

		Average Speed (miles per hour)											
Year		4	5	8	11	14	17	20	23	26	29	32	
2007	2800	4	4					4			4	4	
2008	2800	4	4		5		5		5	5	4	4	
2009	2800	5	5		5		5	5	5	5	5	5	
2010	2800	5	5		5		5	5	5	5	5	5	
2011	2800	5	5		5		5	5	5	5	5	5	
2012	2800	5	5		5		5	5	5	5	5	5	
2013	2800	5	5		5		5	5	5	5	5	5	
2014	2800	5	5		5		5	5	5	5	5	5	
2015	2800	5	5		5		5	5	5	5	5	5	
2016	2800	5	5		5		5	5	5	5	5	5	
2017	2800	5	5		5		5	5	5	5	5	5	
2018	2800	5	5		5		5	5	5	5	5	5	
2019	2800	5	5		5		5	5	5	5	5	5	
2020	2800	5	5		5		5	5	5	5	5	5	
2021	2800	5	5		5		5	5	5	5	5	5	
2022	2800	5	5		5		5	5	5	5	5	5	
2023	2800	5	5		5		5	5	5	5	5	5	
2024	2800	5	5		5		5	5	5	5	5	5	
2025	2800	5	5		5		5	5	5	5	5	5	
2026	2800	5	5		5		5	5	5	5	5	5	
2027	2800	5	5		5		5	5	5	5	5	5	
2028	2800	5	5		5		5	5	5	5	5	5	
2029	2800	5	5		5		5	5	5	5	5	5	
2030	2800	5	5		5		5	5	5	5	5	5	