Appendix E

Air Quality Assessment

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July 17, 2012

Lori Parks
Associate Project Manager
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San Jose, CA 95126

VIA E-Mail: lparks@davidjpowers.com

SUBJECT: **Diridon Station Area Plan Project, San Jose, CA -- Air Quality Assessment**

Dear Lori:

This letter provides the results of an assessment of potential air quality impacts from the proposed Diridon Station Area Plan (DSAP) in San Jose (City), California. The project would develop up to 4,963,400 square feet of commercial/R&D/light industrial, 424,100 square feet for retail/restaurant, 2,588 residential units, and 900 hotel rooms in an approximately 250 acre area in downtown San Jose. This report addresses operational air quality impacts for regional and local criteria pollutants for compliance with CEQA, assuming the ultimate development of the project sites as described above. This analysis was conducted using guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Our analysis compared operational air emissions expected from the area plan (Maximum Development Levels under the DSAP) against current BAAQMD significance thresholds for criteria pollutants (ROG, NO_X, PM_{10}, $PM_{2.5}$). A second comparison of operational air emissions was made between the DSAP and the *San José Downtown Strategy 2000* ("Strategy 2000") to provide emissions associated with proposed development outside of the Downtown Core. Finally, our analysis modeled the three highest volume roadway intersections in the Plan Area for potential carbon monoxide (CO) hot spots.

We have reviewed the traffic data[2] and proposed land uses that you provided and our findings and modeling results are as follows:

1) The average daily and annual emissions of ROG with DSAP operation would exceed the BAAQMD significance thresholds. For informational purposes, emissions were calculated for development proposed by the DSAP outside of the Downtown Core, which the Strategy 2000 EIR did not previously evaluate. This level of development would also exceed the 2010 BAAQMD significance thresholds for ROG. However, it should be noted that these

[1] BAAQMD, 2012. *BAAQMD CEQA Air Quality Guidelines*. Updated: May.
[2] Hexagon Transportation Consultants, Inc., 2012. *Diridon Master Plan Volumes*. March 26.

BAAQMD thresholds are intended to be applied during project-level analyses and not necessarily to plan-level.

2) This analysis used future growth and future emission factors. The future emission factors for 2040 (2035 is the latest year currently available in EMFAC and closest to 2040) reflect the much lower rate of vehicle exhaust expected based on California Air Resources Board's EMFAC2007 factors used in the CalEEMod model.

3) Implementation of the proposed area plan would not result in a significant CO hot spot at any of the Plan Area intersections.

Operational Emissions

The California Emissions Estimator Model 2011.1.1 (CalEEMod) was used to predict average daily and annual emissions associated with operation of fully-developed sites under the DSAP. CalEEMod was also used to predict daily and annual emissions associated with operation of the Strategy 2000 and, in turn, the area plan net emissions. Adjustments to the modeling are described below. Operational emissions modeling worksheets are provided in Attachment 1.

Land Use Descriptions
The DSAP land uses were input into CalEEMod, which included 4,963,400 square feet of commercial/R&D/light industrial (modeled as "Office Park"), 424,100 square feet for retail/restaurant (modeled as "Strip Mall), 2,588 residential units (modeled as "Apartments Mid Rise", and 900 hotel rooms.

The DSAP proposes the development of 1,398 residential units and 83,000 square feet of retail/restaurant uses outside of the Downtown Core. The "Proposed Development Outside of Downtown Core" represents the difference between the DSAP and Strategy 2000 for transportation planning purposes.

Year of Analysis
Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates CalEEMod uses. Full build-out of the Plan Area was assumed to be 2040.

Trip Generation Rates
The default ITE trip rates were used in CalEEMod to determine area plan mobile emissions. The Mode Share by Trip Ends provided by you indicate that 80.4 percent of people would drive as their main mode of commuter transportation under the cumulative scenario involving implementation of the DSAP, Strategy 2000, other approved projects and the existing baseline. Under the cumulative scenario involving only implementation of the Strategy 2000, other approved projects, and the existing baseline, 80.9 percent of people would drive. These percentages were applied to the mobile emissions outputs of CalEEMod for both scenarios to adjust the estimates.

Area Sources
Minor adjustments were made to the area source inputs of CalEEMod. These include an adjustment that no residences would use wood-burning stoves or fireplaces. Natural gas stoves may be used and were modeled as such. Also, the model was adjusted to account for current BAAQMD regulations pertaining

to architectural coatings (Reg. 8, Rule 3), which limits most paints to less than 150 grams of volatile organic compounds per liter.

Energy
To account of the Green Building Ordinance and Policies of the City, all new building construction was assumed to exceed Title 24 requirements by 20 percent.

These DSAP emissions are presented in Table 1. The BAAQMD has adopted thresholds for evaluating air pollutant emissions from projects. Recommended thresholds of significance for operational-related emissions are based on the 2010 BAAQMD CEQA Guidelines and are as follows:

- The proposed project would generate operational-related emissions of ROG, NO_X or $PM_{2.5}$ greater than 54 pounds per day (or 10 tons per year) or PM_{10} greater than 82 pounds per day (or 15 tons per year).

Under the 1999 BAAQMD CEQA Guidelines, the thresholds of significance for projects are: greater than 80 pounds per day (or 15 tons per year) of ROG, NO_X or PM_{10}. As shown in Table 1, the average daily and annual emissions of ROG and NO_X with DSAP operation would exceed the BAAQMD significance thresholds under both the 1999 and 2010 Guidelines. It should, however, be noted that these BAAQMD thresholds are intended to be applied during project-level analyses and not necessarily to plan-level.

Table 1 Project Operational Emissions

Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Annual Emissions (tons per year)				
Proposed DSAP – 2040	64.71	38.06	3.08	2.69
2010 BAAQMD Thresholds	10	10	15	10
1999 BAAQMD Thresholds	15	15	15	-
Exceed Thresholds?	***Yes***	***Yes***	***No***	***No***
Daily Emissions (pounds per day)				
Proposed DSAP – 2040	355	209	17	15
2010 BAAQMD Thresholds	54	54	82	54
1999 BAAQMD Thresholds	80	80	80	-
Exceed Thresholds?	***Yes***	***Yes***	***No***	***No***

For informational purposes, emissions were calculated for 1,398 residential units and 83,000 square feet of retail, as shown in Table 2 below. This corresponds to the amount of development proposed by the DSAP outside of the Downtown Core, which the Strategy 2000 EIR did not previously evaluate. This level of development would exceed the 2010 BAAQMD significance thresholds for ROG.

Table 2 Operational Emissions from Proposed Development outside of Downtown Core

	ROG	NOx	PM_{10}	$PM_{2.5}$
Annual Emissions	10.28	4.89	0.42	0.36
Average Daily Emissions	57	27	2	2

Transportation Policies and Goals of the San Jose 2040 General Plan: To reduce the impact of operational emissions, adding the transportation policies and goals contained in the San Jose 2040 General Plan should be considered. Implementation of the policies and actions listed under Goal TR 7, "Transportation Demand Management," and Goal TR-8, "Parking Strategies," would be effective in reducing VMT and the impact of operational emissions. However, the significant emissions of ROG are, in part, largely due to consumer product use (i.e., aerosol sprays). Because there are no reasonable mitigation measures that could be implemented by the Plan that would ensure reduction under the BAAQMD thresholds, this impact would remain significant.

Significance After Mitigation: Significant unavoidable impact.

CO Hot Spot Analysis and Modeling

In addition to the criteria pollutants analyzed above, the three highest volume intersections in the Study Area were modeled for CO hot spots (based on the traffic analysis prepared for the project). CO hot spots are high, localized CO concentrations and are generally caused by congested intersections with a large volume of traffic. CO hot spot modeling was performed using the California Line Source Dispersion Model (CALINE4) with weighted vehicle emissions factors from EMFAC2011. Methodology followed the modeling recommendations contained in the Carbon Monoxide Protocol.[3] 2035 emissions factors were used since this is the latest year currently available in EMFAC2011 and the closest to 2040.

The three modeled intersections were as follows: 1) Coleman Avenue and Taylor Street; 2) Coleman Avenue and Hedding Street; and 3) Bird Avenue and San Carlos Street.[4] Twelve receptors were modeled for each intersection at seven meter distances from roadway segments. Ambient background CO concentrations reported by the California Air Resources Board (CARB) were added to the model output results to obtain the predicted build-out CO concentrations at the modeled receptors. Table 2 shows the predicted build-out CO concentrations for the DSAP at the most affected receptor for each of the three intersections. CALINE4 model worksheets are provided in Attachment 2.

[3] California Department of Transportation, 1997. *Transportation Project-Level Carbon Monoxide Protocol*. Revised: December.

[4] Only the intersection of Bird Avenue and San Carlos Street is within the DSAP boundaries. The other two intersections were included in the Study Area, as defined in the traffic analysis prepared for the project.

Table 2 CO Hot Spot Modeling Results, parts per million (ppm)

Intersection Scenario	Modeled 8-Hour CO	Background 8-Hour CO Concentration[1]	Predicted 8-Hour Build-Out CO
Coleman Ave. & Taylor St.	0.4	2.5	2.9
Coleman Ave. & Hedding St.	0.4	2.5	2.9
Bird Ave. & San Carlos St.	0.3	2.5	2.8

[1] CARB, 2012. iADAM Air Quality Statistics. Available: http://www.arb.ca.gov/adam/. Accessed: June 25, 2012. Highest reported value for the past 3 years (2009-2011) used.

The State and federal ambient air quality standard for 8-hour CO is 9.0 ppm. As shown in Table 2, the three highest volume intersections in the Plan Area would be well below the established standard for CO.

♦ ♦ ♦

This completes our assessment. Please feel free to contact us should you have any questions.

Sincerely,

James A. Reyff
Senior Consultant
Illingworth & Rodkin, Inc.

(12-032)

Attachment 1: CalEEMod Operational Emissions
Attachment 2: CALINE4 Model Worksheets

Diridon Station Area Plan

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	4963.5	1000sqft
Hotel	900	Room
Apartments Mid Rise	2588	Dwelling Unit
Strip Mall	424.1	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Pacific Gas & Electric Company
Climate Zone	4		2.2		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Woodstoves - No woodstoves or wood fireplaces. Apartments may have natural gas fireplaces, modeled as such.

Area Coating - BAAQMD Regulation 8, Rule 3 limits most paint to 150 grams volatile organic compounds per liter.

Mobile Land Use Mitigation -

Energy Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	43.91	0.22	19.34	0.00		0.00	0.11		0.00	0.11	0.00	31.75	31.75	0.03	0.00	32.38
Energy	1.08	9.73	7.63	0.06		0.00	0.75		0.00	0.75	0.00	49,371.54	49,371.54	1.95	0.86	49,678.99
Mobile	24.78	37.25	194.50	0.92	90.25	3.83	94.08	1.53	3.35	4.88	0.00	59,962.25	59,962.25	1.73	0.00	59,998.58
Waste						0.00	0.00		0.00	0.00	1,369.09	0.00	1,369.09	80.91	0.00	3,068.23
Water						0.00	0.00		0.00	0.00	0.00	2,432.82	2,432.82	33.84	0.88	3,415.66
Total	**69.77**	**47.20**	**221.47**	**0.98**	**90.25**	**3.83**	**94.94**	**1.53**	**3.35**	**5.74**	**1,369.09**	**111,798.36**	**113,167.45**	**118.46**	**1.74**	**116,193.84**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	43.91	0.22	19.34	0.00		0.00	0.11		0.00	0.11	0.00	31.75	31.75	0.03	0.00	32.38
Energy	0.88	7.89	6.18	0.05		0.00	0.61		0.00	0.61	0.00	44,457.38	44,457.38	1.78	0.77	44,734.41
Mobile	24.78	37.25	194.50	0.92	90.25	3.83	94.08	1.53	3.35	4.88	0.00	59,962.25	59,962.25	1.73	0.00	59,998.58
Waste						0.00	0.00		0.00	0.00	1,369.09	0.00	1,369.09	80.91	0.00	3,068.23
Water						0.00	0.00		0.00	0.00	0.00	2,432.82	2,432.82	33.84	0.88	3,415.66

Total	**69.57**	**45.36**	**220.02**	**0.97**	**90.25**	**3.83**	**94.80**	**1.53**	**3.35**	**5.60**	**1,369.09**	**106,884.20**	**108,253.29**	**118.29**	**1.65**	**111,249.26**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	24.78	37.25	194.50	0.92	90.25	3.83	94.08	1.53	3.35	4.88	0.00	59,962.25	59,962.25	1.73	0.00	59,998.58
Unmitigated	24.78	37.25	194.50	0.92	90.25	3.83	94.08	1.53	3.35	4.88	0.00	59,962.25	59,962.25	1.73	0.00	59,998.58
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	17,054.92	18,530.08	15709.16	38,114,091	38,114,091
Hotel	7,353.00	7,371.00	5355.00	13,432,782	13,432,782
Office Park	56,683.17	8,140.14	3772.26	105,737,950	105,737,950
Strip Mall	18,796.11	17,829.16	8664.36	26,504,868	26,504,868
Total	99,887.20	51,870.38	33,500.78	183,789,691	183,789,691

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80
Hotel	9.50	7.30	7.30	19.40	61.60	19.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

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/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	35,787.39	35,787.39	1.62	0.61	36,011.65
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	38,690.58	38,690.58	1.75	0.66	38,933.03
NaturalGas Mitigated	0.88	7.89	6.18	0.05		0.00	0.61		0.00	0.61	0.00	8,669.99	8,669.99	0.17	0.16	8,722.76
NaturalGas Unmitigated	1.08	9.73	7.63	0.06		0.00	0.75		0.00	0.75	0.00	10,680.96	10,680.96	0.20	0.20	10,745.97
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Mid Rise	2.81993e+007	0.15	1.30	0.55	0.01		0.00	0.11		0.00	0.11	0.00	1,504.82	1,504.82	0.03	0.03	1,513.9
Hotel	6.06094e+007	0.33	2.97	2.50	0.02		0.00	0.23		0.00	0.23	0.00	3,234.35	3,234.35	0.06	0.06	3,254.0
Office Park	1.10289e+008	0.59	5.41	4.54	0.03		0.00	0.41		0.00	0.41	0.00	5,885.44	5,885.44	0.11	0.11	5,921.2
Strip Mall	1.05601e+006	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00	0.00	56.35	56.35	0.00	0.00	56.70
Total		**1.08**	**9.73**	**7.63**	**0.06**		**0.00**	**0.75**		**0.00**	**0.75**	**0.00**	**10,680.96**	**10,680.96**	**0.20**	**0.20**	**10,745.9**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Mid Rise	2.35851e+007	0.13	1.09	0.46	0.01		0.00	0.09		0.00	0.09	0.00	1,258.59	1,258.59	0.02	0.02	1,266.2

Hotel	4.9729e+007	0.27	2.44	2.05	0.01		0.00	0.19		0.00	0.19	0.00	2,653.73	2,653.73	0.05	0.05	2,669.8
Office Park	8.83106e+007	0.48	4.33	3.64	0.03		0.00	0.33		0.00	0.33	0.00	4,712.59	4,712.59	0.09	0.09	4,741.2
Strip Mall	844807	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	45.08	45.08	0.00	0.00	45.36
Total		**0.88**	**7.90**	**6.18**	**0.05**		**0.00**	**0.61**		**0.00**	**0.61**	**0.00**	**8,669.99**	**8,669.99**	**0.16**	**0.16**	**8,722.7**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	9.3027e+006					2,706.26	0.12	0.05	2,723.22
Hotel	1.10294e+007					3,208.58	0.15	0.06	3,228.68
Office Park	1.07708e+008					31,333.48	1.42	0.54	31,529.83
Strip Mall	4.95773e+006					1,442.26	0.07	0.02	1,451.30
Total						**38,690.58**	**1.76**	**0.67**	**38,933.03**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	9.09735e+006					2,646.52	0.12	0.05	2,663.11
Hotel	1.0376e+007					3,018.50	0.14	0.05	3,037.41
Office Park	9.88729e+007					28,763.27	1.30	0.49	28,943.51
Strip Mall	4.67189e+006					1,359.11	0.06	0.02	1,367.62

Total						**35,787.40**	**1.62**	**0.61**	**36,011.65**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	43.91	0.22	19.34	0.00		0.00	0.11		0.00	0.11	0.00	31.75	31.75	0.03	0.00	32.38
Unmitigated	43.91	0.22	19.34	0.00		0.00	0.11		0.00	0.11	0.00	31.75	31.75	0.03	0.00	32.38
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.08					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	36.25					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.58	0.22	19.34	0.00		0.00	0.11		0.00	0.11	0.00	31.75	31.75	0.03	0.00	32.38

Total	**43.91**	**0.22**	**19.34**	**0.00**		**0.00**	**0.11**		**0.00**	**0.11**	**0.00**	**31.75**	**31.75**	**0.03**	**0.00**	**32.38**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	7.08					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	36.25					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.58	0.22	19.34	0.00		0.00	0.11		0.00	0.11	0.00	31.75	31.75	0.03	0.00	32.38
Total	**43.91**	**0.22**	**19.34**	**0.00**		**0.00**	**0.11**		**0.00**	**0.11**	**0.00**	**31.75**	**31.75**	**0.03**	**0.00**	**32.38**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					2,432.82	33.84	0.88	3,415.66
Unmitigated					2,432.82	33.84	0.88	3,415.66

Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	168.619 / 106.303					375.55	5.16	0.13	525.55
Hotel	22.8301 / 2.53668					38.78	0.70	0.02	59.01
Office Park	882.181 / 540.692					1,949.08	27.02	0.70	2,733.75
Strip Mall	31.4142 / 19.2538					69.41	0.96	0.02	97.35
Total						**2,432.82**	**33.84**	**0.87**	**3,415.66**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	168.619 / 106.303					375.55	5.16	0.13	525.55
Hotel	22.8301 / 2.53668					38.78	0.70	0.02	59.01
Office Park	882.181 / 540.692					1,949.08	27.02	0.70	2,733.75
Strip Mall	31.4142 / 19.2538					69.41	0.96	0.02	97.35
Total						**2,432.82**	**33.84**	**0.87**	**3,415.66**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					1,369.09	80.91	0.00	3,068.23
Unmitigated					1,369.09	80.91	0.00	3,068.23
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	1190.48					241.66	14.28	0.00	541.57
Hotel	492.75					100.02	5.91	0.00	224.16
Office Park	4616.06					937.02	55.38	0.00	2,099.92
Strip Mall	445.31					90.39	5.34	0.00	202.58
Total						**1,369.09**	**80.91**	**0.00**	**3,068.23**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	1190.48					241.66	14.28	0.00	541.57
Hotel	492.75					100.02	5.91	0.00	224.16
Office Park	4616.06					937.02	55.38	0.00	2,099.92
Strip Mall	445.31					90.39	5.34	0.00	202.58
Total						**1,369.09**	**80.91**	**0.00**	**3,068.23**

9.0 Vegetation

Diridon - Strategy 2000 Growth Scenario

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	4963.5	1000sqft
Hotel	900	Room
Apartments Mid Rise	1190	Dwelling Unit
Strip Mall	341.1	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Pacific Gas & Electric Company
Climate Zone	4		2.2		
		Precipitation Freq (Days)			
			58		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Woodstoves - No woodstoves or wood fireplaces. Apartments may have natural gas fireplaces, modeled as such.

Area Coating - BAAQMD Regulation 8, Rule 3 limits most paint to 150 grams volatile organic compounds per liter.

Energy Mitigation -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	36.44	0.10	8.89	0.00		0.00	0.05		0.00	0.05	0.00	14.60	14.60	0.01	0.00	14.89
Energy	1.00	9.02	7.33	0.05		0.00	0.69		0.00	0.69	0.00	46,803.48	46,803.48	1.86	0.81	47,094.99
Mobile	21.23	31.85	166.77	0.79	77.59	3.29	80.88	1.31	2.88	4.19	0.00	51,530.34	51,530.34	1.49	0.00	51,561.53
Waste						0.00	0.00		0.00	0.00	1,220.86	0.00	1,220.86	72.15	0.00	2,736.03
Water						0.00	0.00		0.00	0.00	0.00	2,216.37	2,216.37	30.86	0.80	3,112.71
Total	**58.67**	**40.97**	**182.99**	**0.84**	**77.59**	**3.29**	**81.62**	**1.31**	**2.88**	**4.93**	**1,220.86**	**100,564.79**	**101,785.65**	**106.37**	**1.61**	**104,520.15**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	36.44	0.10	8.89	0.00		0.00	0.05		0.00	0.05	0.00	14.60	14.60	0.01	0.00	14.89
Energy	0.81	7.30	5.92	0.04		0.00	0.56		0.00	0.56	0.00	42,073.08	42,073.08	1.69	0.73	42,335.29
Mobile	21.23	31.85	166.77	0.79	77.59	3.29	80.88	1.31	2.88	4.19	0.00	51,530.34	51,530.34	1.49	0.00	51,561.53
Waste						0.00	0.00		0.00	0.00	1,220.86	0.00	1,220.86	72.15	0.00	2,736.03
Water						0.00	0.00		0.00	0.00	0.00	2,216.37	2,216.37	30.86	0.80	3,112.71
Total	**58.48**	**39.25**	**181.58**	**0.83**	**77.59**	**3.29**	**81.49**	**1.31**	**2.88**	**4.80**	**1,220.86**	**95,834.39**	**97,055.25**	**106.20**	**1.53**	**99,760.45**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	21.23	31.85	166.77	0.79	77.59	3.29	80.88	1.31	2.88	4.19	0.00	51,530.34	51,530.34	1.49	0.00	51,561.53
Unmitigated	21.23	31.85	166.77	0.79	77.59	3.29	80.88	1.31	2.88	4.19	0.00	51,530.34	51,530.34	1.49	0.00	51,561.53
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	7,842.10	8,520.40	7223.30	17,525,413	17,525,413
Hotel	7,353.00	7,371.00	5355.00	13,432,782	13,432,782
Office Park	56,683.17	8,140.14	3772.26	105,737,950	105,737,950
Strip Mall	15,117.55	14,339.84	6968.67	21,317,638	21,317,638
Total	86,995.82	38,371.38	23,319.23	158,013,783	158,013,783

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Mid Rise	12.40	4.30	5.40	26.10	29.10	44.80
Hotel	9.50	7.30	7.30	19.40	61.60	19.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00

5.0 Energy Detail

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/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	34,091.79	34,091.79	1.54	0.58	34,305.42
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	36,946.43	36,946.43	1.67	0.63	37,177.95
NaturalGas Mitigated	0.81	7.30	5.92	0.04		0.00	0.56		0.00	0.56	0.00	7,981.30	7,981.30	0.15	0.15	8,029.87
NaturalGas Unmitigated	1.00	9.02	7.33	0.05		0.00	0.69		0.00	0.69	0.00	9,857.05	9,857.05	0.19	0.18	9,917.04
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Mid Rise	1.29665e+007	0.07	0.60	0.25	0.00		0.00	0.05		0.00	0.05	0.00	691.94	691.94	0.01	0.01	696.15
Hotel	6.06094e+007	0.33	2.97	2.50	0.02		0.00	0.23		0.00	0.23	0.00	3,234.35	3,234.35	0.06	0.06	3,254.0
Office Park	1.10289e+008	0.59	5.41	4.54	0.03		0.00	0.41		0.00	0.41	0.00	5,885.44	5,885.44	0.11	0.11	5,921.2
Strip Mall	849339	0.00	0.04	0.03	0.00		0.00	0.00		0.00	0.00	0.00	45.32	45.32	0.00	0.00	45.60
Total		**0.99**	**9.02**	**7.32**	**0.05**		**0.00**	**0.69**		**0.00**	**0.69**	**0.00**	**9,857.05**	**9,857.05**	**0.18**	**0.18**	**9,917.0**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Mid Rise	1.08448e+007	0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04	0.00	578.72	578.72	0.01	0.01	582.24
Hotel	4.9729e+007	0.27	2.44	2.05	0.01		0.00	0.19		0.00	0.19	0.00	2,653.73	2,653.73	0.05	0.05	2,669.8

Office Park	8.83106e+007	0.48	4.33	3.64	0.03		0.00	0.33		0.00	0.33	0.00	4,712.59	4,712.59	0.09	0.09	4,741.2
Strip Mall	679471	0.00	0.03	0.03	0.00		0.00	0.00		0.00	0.00	0.00	36.26	36.26	0.00	0.00	36.48
Total		**0.81**	**7.30**	**5.93**	**0.04**		**0.00**	**0.56**		**0.00**	**0.56**	**0.00**	**7,981.30**	**7,981.30**	**0.15**	**0.15**	**8,029.8**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	4.27751e+006					1,244.38	0.06	0.02	1,252.18
Hotel	1.10294e+007					3,208.58	0.15	0.06	3,228.68
Office Park	1.07708e+008					31,333.48	1.42	0.54	31,529.83
Strip Mall	3.98746e+006					1,160.00	0.05	0.02	1,167.27
Total						**36,946.44**	**1.68**	**0.64**	**37,177.96**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Mid Rise	4.18309e+006					1,216.91	0.06	0.02	1,224.54
Hotel	1.0376e+007					3,018.50	0.14	0.05	3,037.41
Office Park	9.88729e+007					28,763.27	1.30	0.49	28,943.51
Strip Mall	3.75756e+006					1,093.12	0.05	0.02	1,099.97
Total						**34,091.80**	**1.55**	**0.58**	**34,305.43**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	36.44	0.10	8.89	0.00		0.00	0.05		0.00	0.05	0.00	14.60	14.60	0.01	0.00	14.89
Unmitigated	36.44	0.10	8.89	0.00		0.00	0.05		0.00	0.05	0.00	14.60	14.60	0.01	0.00	14.89
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.71					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	30.47					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.27	0.10	8.89	0.00		0.00	0.05		0.00	0.05	0.00	14.60	14.60	0.01	0.00	14.89
Total	**36.45**	**0.10**	**8.89**	**0.00**		**0.00**	**0.05**		**0.00**	**0.05**	**0.00**	**14.60**	**14.60**	**0.01**	**0.00**	**14.89**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.71					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	30.47					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.27	0.10	8.89	0.00		0.00	0.05		0.00	0.05	0.00	14.60	14.60	0.01	0.00	14.89
Total	**36.45**	**0.10**	**8.89**	**0.00**		**0.00**	**0.05**		**0.00**	**0.05**	**0.00**	**14.60**	**14.60**	**0.01**	**0.00**	**14.89**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					2,216.37	30.86	0.80	3,112.71
Unmitigated					2,216.37	30.86	0.80	3,112.71
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	77.5333 / 48.8797					172.69	2.37	0.06	241.66
Hotel	22.8301 / 2.53668					38.78	0.70	0.02	59.01
Office Park	882.181 / 540.692					1,949.08	27.02	0.70	2,733.75
Strip Mall	25.2661 / 15.4857					55.82	0.77	0.02	78.30
Total						**2,216.37**	**30.86**	**0.80**	**3,112.72**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Mid Rise	77.5333 / 48.8797					172.69	2.37	0.06	241.66
Hotel	22.8301 / 2.53668					38.78	0.70	0.02	59.01
Office Park	882.181 / 540.692					1,949.08	27.02	0.70	2,733.75
Strip Mall	25.2661 / 15.4857					55.82	0.77	0.02	78.30
Total						**2,216.37**	**30.86**	**0.80**	**3,112.72**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					1,220.86	72.15	0.00	2,736.03
Unmitigated					1,220.86	72.15	0.00	2,736.03
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	547.4					111.12	6.57	0.00	249.02
Hotel	492.75					100.02	5.91	0.00	224.16
Office Park	4616.06					937.02	55.38	0.00	2,099.92
Strip Mall	358.16					72.70	4.30	0.00	162.93
Total						**1,220.86**	**72.16**	**0.00**	**2,736.03**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Mid Rise	547.4					111.12	6.57	0.00	249.02
Hotel	492.75					100.02	5.91	0.00	224.16
Office Park	4616.06					937.02	55.38	0.00	2,099.92
Strip Mall	358.16					72.70	4.30	0.00	162.93
Total						**1,220.86**	**72.16**	**0.00**	**2,736.03**

9.0 Vegetation

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Diridon Coleman/Taylor Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	23. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	4 (D)	VS=	.0 CM/S		
MIXH=	300. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	7.2 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. C NB - App	*	*****	*****	*****	***** *	AG	2885	1.5	.0	13.3
B. C NB - Cr Ap	*	*****	*****	*****	***** *	AG	2885	.8	.0	13.3
C. C SB - Dep	*	*****	*****	*****	***** *	AG	1573	1.5	.0	17.0
D. C SB - Cr De	*	*****	*****	*****	***** *	AG	1573	.8	.0	17.0
E. C NB - Dep	*	*****	*****	*****	***** *	AG	2547	1.5	.0	13.3
F. C NB - Cr De	*	*****	*****	*****	***** *	AG	2547	.8	.0	13.3
G. C SB - Cr Ap	*	*****	*****	*****	***** *	AG	1655	.8	.0	13.3
H. C SB - App	*	*****	*****	*****	***** *	AG	1655	1.5	.0	13.3
I. T WB - Cr Ap	*	*****	*****	*****	***** *	AG	1270	.8	.0	13.3
J. T WB - App	*	*****	*****	*****	***** *	AG	1270	1.5	.0	13.3
K. T WB - Dep	*	*****	*****	*****	***** *	AG	1606	1.5	.0	13.3
L. T WB - Cr De	*	*****	*****	*****	***** *	AG	1606	.8	.0	13.3
M. T EB - Cr Ap	*	*****	*****	*****	***** *	AG	2031	.8	.0	13.3
N. T EB - App	*	*****	*****	*****	***** *	AG	2031	1.5	.0	13.3
O. T EB - Dep	*	*****	*****	*****	***** *	AG	2115	1.5	.0	13.3
P. T EB - Cr De	*	*****	*****	*****	***** *	AG	2115	.8	.0	13.3

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Diridon Coleman/Taylor Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	******	594425	1.8
2. Recpt 2	******	594333	1.8
3. Recpt 3	******	594297	1.8
4. Recpt 4	******	594395	1.8
5. Recpt 5	******	594457	1.8
6. Recpt 6	******	594431	1.8
7. Recpt 7	******	594524	1.8
8. Recpt 8	******	594552	1.8
9. Recpt 9	******	594569	1.8
10. Recpt 10	******	594548	1.8
11. Recpt 11	******	594340	1.8
12. Recpt 12	******	594306	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	144.	.4	.3	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	293.	.5	.3	.0	.1	.0	.0	.0	.0	.0
3. Recpt 3	320.	.5	.0	.0	.2	.0	.0	.0	.0	.0
4. Recpt 4	43.	.4	.0	.0	.1	.0	.0	.0	.0	.0
5. Recpt 5	308.	.4	.0	.0	.0	.0	.3	.0	.0	.0
6. Recpt 6	121.	.4	.2	.0	.1	.0	.0	.0	.0	.0
7. Recpt 7	238.	.4	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	214.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	155.	.5	.0	.0	.0	.0	.3	.0	.0	.1
10. Recpt 10	131.	.5	.0	.0	.0	.0	.1	.0	.0	.2
11. Recpt 11	69.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	34.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Diridon Coleman/Taylor Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P

1.	Recpt 1	*	.0	.0	.0	.0	.0	.0	.0	.0
2.	Recpt 2	*	.0	.0	.0	.0	.0	.0	.0	.0
3.	Recpt 3	*	.0	.0	.0	.0	.0	.0	.0	.0
4.	Recpt 4	*	.0	.0	.0	.0	.0	.0	.2	.0
5.	Recpt 5	*	.0	.0	.0	.0	.0	.0	.0	.0
6.	Recpt 6	*	.0	.0	.0	.0	.0	.0	.0	.0
7.	Recpt 7	*	.0	.0	.0	.0	.0	.0	.3	.0
8.	Recpt 8	*	.0	.1	.0	.0	.0	.0	.1	.0
9.	Recpt 9	*	.0	.0	.0	.0	.0	.0	.0	.0
10.	Recpt 10	*	.0	.0	.0	.0	.0	.0	.0	.0
11.	Recpt 11	*	.0	.0	.2	.0	.0	.1	.0	.0
12.	Recpt 12	*	.0	.0	.0	.0	.0	.2	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Diridon Coleman/Hedding Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	23. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	4 (D)	VS=	.0 CM/S		
MIXH=	300. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	7.2 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. C NB - App	*	*****	*****	*****	***** *	AG	2856	1.5	.0	13.3
B. C NB - Cr Ap	*	*****	*****	*****	***** *	AG	2856	.8	.0	13.3
C. C SB - Dep	*	*****	*****	*****	***** *	AG	1692	1.5	.0	13.3
D. C SB - Cr De	*	*****	*****	*****	***** *	AG	1692	.8	.0	13.3
E. C NB - Dep	*	*****	*****	*****	***** *	AG	2513	1.5	.0	17.0
F. C NB - Cr De	*	*****	*****	*****	***** *	AG	2513	.8	.0	17.0
G. C SB - Cr Ap	*	*****	*****	*****	***** *	AG	1348	.8	.0	17.0
H. C SB - App	*	*****	*****	*****	***** *	AG	1348	1.5	.0	17.0
I. H WB - Cr Ap	*	*****	*****	*****	***** *	AG	749	.8	.0	13.3
J. H WB - App	*	*****	*****	*****	***** *	AG	749	1.5	.0	13.3
K. H WB - Dep	*	*****	*****	*****	***** *	AG	804	1.5	.0	13.3
L. H WB - Cr De	*	*****	*****	*****	***** *	AG	804	.8	.0	13.3
M. H EB - Cr Ap	*	*****	*****	*****	***** *	AG	1239	.8	.0	13.3
N. H EB - App	*	*****	*****	*****	***** *	AG	1239	1.5	.0	13.3
O. H EB - Dep	*	*****	*****	*****	***** *	AG	1183	1.5	.0	13.3
P. H EB - Cr De	*	*****	*****	*****	***** *	AG	1183	.8	.0	13.3

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Diridon Coleman/Hedding Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	******	594870	1.8
2. Recpt 2	******	594907	1.8
3. Recpt 3	******	594838	1.8
4. Recpt 4	******	594868	1.8
5. Recpt 5	******	594751	1.8
6. Recpt 6	******	594731	1.8
7. Recpt 7	******	594966	1.8
8. Recpt 8	******	594991	1.8
9. Recpt 9	******	595023	1.8
10. Recpt 10	******	594983	1.8
11. Recpt 11	******	594768	1.8
12. Recpt 12	******	594734	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	315.	.6	.0	.0	.0	.0	.3	.0	.0	.0
2. Recpt 2	155.	.4	.2	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	39.	.4	.1	.0	.1	.0	.0	.0	.0	.0
4. Recpt 4	132.	.4	.0	.0	.1	.0	.0	.0	.0	.0
5. Recpt 5	313.	.5	.4	.0	.1	.0	.0	.0	.0	.0
6. Recpt 6	333.	.4	.2	.0	.2	.0	.0	.0	.0	.0
7. Recpt 7	244.	.3	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	223.	.2	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	147.	.5	.0	.0	.0	.0	.3	.0	.0	.0
10. Recpt 10	122.	.3	.0	.0	.0	.0	.1	.0	.0	.2
11. Recpt 11	61.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	29.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Diridon Coleman/Hedding Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P

1.	Recpt 1	*	.0	.0	.0	.0	.0	.0	.0	.0
2.	Recpt 2	*	.0	.0	.0	.0	.0	.0	.0	.0
3.	Recpt 3	*	.0	.0	.0	.0	.0	.0	.0	.0
4.	Recpt 4	*	.0	.0	.0	.0	.0	.0	.0	.0
5.	Recpt 5	*	.0	.0	.0	.0	.0	.0	.0	.0
6.	Recpt 6	*	.0	.0	.0	.0	.0	.0	.0	.0
7.	Recpt 7	*	.0	.0	.0	.0	.0	.0	.1	.0
8.	Recpt 8	*	.0	.0	.0	.0	.0	.0	.0	.0
9.	Recpt 9	*	.0	.0	.0	.0	.0	.0	.0	.0
10.	Recpt 10	*	.0	.0	.0	.0	.0	.0	.0	.0
11.	Recpt 11	*	.0	.0	.1	.0	.0	.1	.0	.0
12.	Recpt 12	*	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Bird Ave/San Carlos St. Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	23. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	4 (D)	VS=	.0 CM/S		
MIXH=	300. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	7.2 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. B NB - App	*	*****	*****	*****	*****	* AG	2330	1.5	.0	17.0
B. B NB - Cr Ap	*	*****	*****	*****	*****	* AG	2330	.8	.0	17.0
C. B SB - Dep	*	*****	*****	*****	*****	* AG	1064	1.5	.0	17.0
D. B SB - Cr De	*	*****	*****	*****	*****	* AG	1064	.8	.0	17.0
E. B NB - Dep	*	*****	*****	*****	*****	* AG	2563	1.5	.0	17.0
F. B NB - Cr De	*	*****	*****	*****	*****	* AG	2563	.8	.0	17.0
G. B SB - Cr Ap	*	*****	*****	*****	*****	* AG	1207	.8	.0	17.0
H. B SB - App	*	*****	*****	*****	*****	* AG	1207	1.5	.0	17.0
I. S WB - Cr Ap	*	*****	*****	*****	*****	* AG	1564	.8	.0	13.3
J. S WB - App	*	*****	*****	*****	*****	* AG	1564	1.5	.0	13.3
K. S WB - Dep	*	*****	*****	*****	*****	* AG	1269	1.5	.0	13.3
L. S WB - Cr De	*	*****	*****	*****	*****	* AG	1269	.8	.0	13.3
M. S EB - Cr Ap	*	*****	*****	*****	*****	* AG	942	.8	.0	13.3
N. S EB - App	*	*****	*****	*****	*****	* AG	942	1.5	.0	13.3
O. S EB - Dep	*	*****	*****	*****	*****	* AG	1147	1.5	.0	13.3
P. S EB - Cr De	*	*****	*****	*****	*****	* AG	1147	.8	.0	13.3

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Bird Ave/San Carlos St. Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	******	592446	1.8
2. Recpt 2	******	592483	1.8
3. Recpt 3	******	592453	1.8
4. Recpt 4	******	592415	1.8
5. Recpt 5	******	592325	1.8
6. Recpt 6	******	592299	1.8
7. Recpt 7	******	592530	1.8
8. Recpt 8	******	592561	1.8
9. Recpt 9	******	592617	1.8
10. Recpt 10	******	592615	1.8
11. Recpt 11	******	592409	1.8
12. Recpt 12	******	592381	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Recpt 1	336.	.3	.0	.0	.0	.0	.1	.0	.0	.0
2. Recpt 2	342.	.4	.0	.0	.0	.0	.4	.0	.0	.0
3. Recpt 3	62.	.3	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	359.	.4	.0	.0	.0	.0	.2	.0	.0	.0
5. Recpt 5	308.	.4	.3	.0	.0	.0	.0	.0	.0	.0
6. Recpt 6	343.	.3	.0	.0	.0	.0	.0	.0	.0	.0
7. Recpt 7	247.	.3	.0	.0	.0	.0	.0	.0	.0	.0
8. Recpt 8	221.	.3	.0	.0	.0	.0	.0	.0	.0	.0
9. Recpt 9	190.	.4	.0	.0	.0	.0	.3	.0	.0	.0
10. Recpt 10	156.	.4	.0	.0	.0	.0	.1	.0	.0	.1
11. Recpt 11	86.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. Recpt 12	61.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: Bird Ave/San Carlos St. Worst-Case
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P

1.	Recpt 1	*	.0	.0	.0	.0	.0	.0	.0	.0
2.	Recpt 2	*	.0	.0	.0	.0	.0	.0	.0	.0
3.	Recpt 3	*	.0	.1	.0	.0	.0	.0	.0	.0
4.	Recpt 4	*	.0	.0	.0	.0	.0	.0	.0	.0
5.	Recpt 5	*	.0	.0	.0	.0	.0	.0	.0	.0
6.	Recpt 6	*	.0	.0	.0	.0	.0	.0	.0	.0
7.	Recpt 7	*	.0	.1	.0	.0	.0	.0	.1	.0
8.	Recpt 8	*	.0	.2	.0	.0	.0	.0	.0	.0
9.	Recpt 9	*	.0	.0	.0	.0	.0	.0	.0	.0
10.	Recpt 10	*	.0	.0	.0	.0	.0	.0	.0	.0
11.	Recpt 11	*	.0	.0	.2	.0	.0	.0	.0	.0
12.	Recpt 12	*	.0	.0	.1	.0	.0	.1	.0	.0