SUMMERWIND RANCH
AIR QUALITY IMPACT ANALYSIS
COUNTY OF RIVERSIDE, CALIFORNIA

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SUMMERWIND RANCH
AIR QUALITY IMPACT ANALYSIS
COUNTY OF RIVERSIDE, CALIFORNIA

1.0 INTRODUCTION AND ATMOSPHERIC SETTING

This initial section of the air quality impact analysis report describes the project and summarizes the atmospheric setting within the study area. Subsequent sections of the report describe the existing air quality setting for the study area, evaluate the project air quality impacts, and present recommended mitigation measures that should be implemented in conjunction with the proposed project.

1.1 Project Description

This section of the report describes the project location, study area, proposed land use type and quantity, and phasing.

1.1.1 Site Location and Study Area

The Summerwind Ranch – SunCal Residential area is the residential portion of the Core property and is located west of the I-10 Freeway between Sandalwood Drive and Cherry Valley Boulevard. The Summerwind Ranch – Town Center development area is the commercial portion of the Core Property and is located west of the I-10 Freeway adjacent to Singleton Road and Cherry Valley Boulevard.

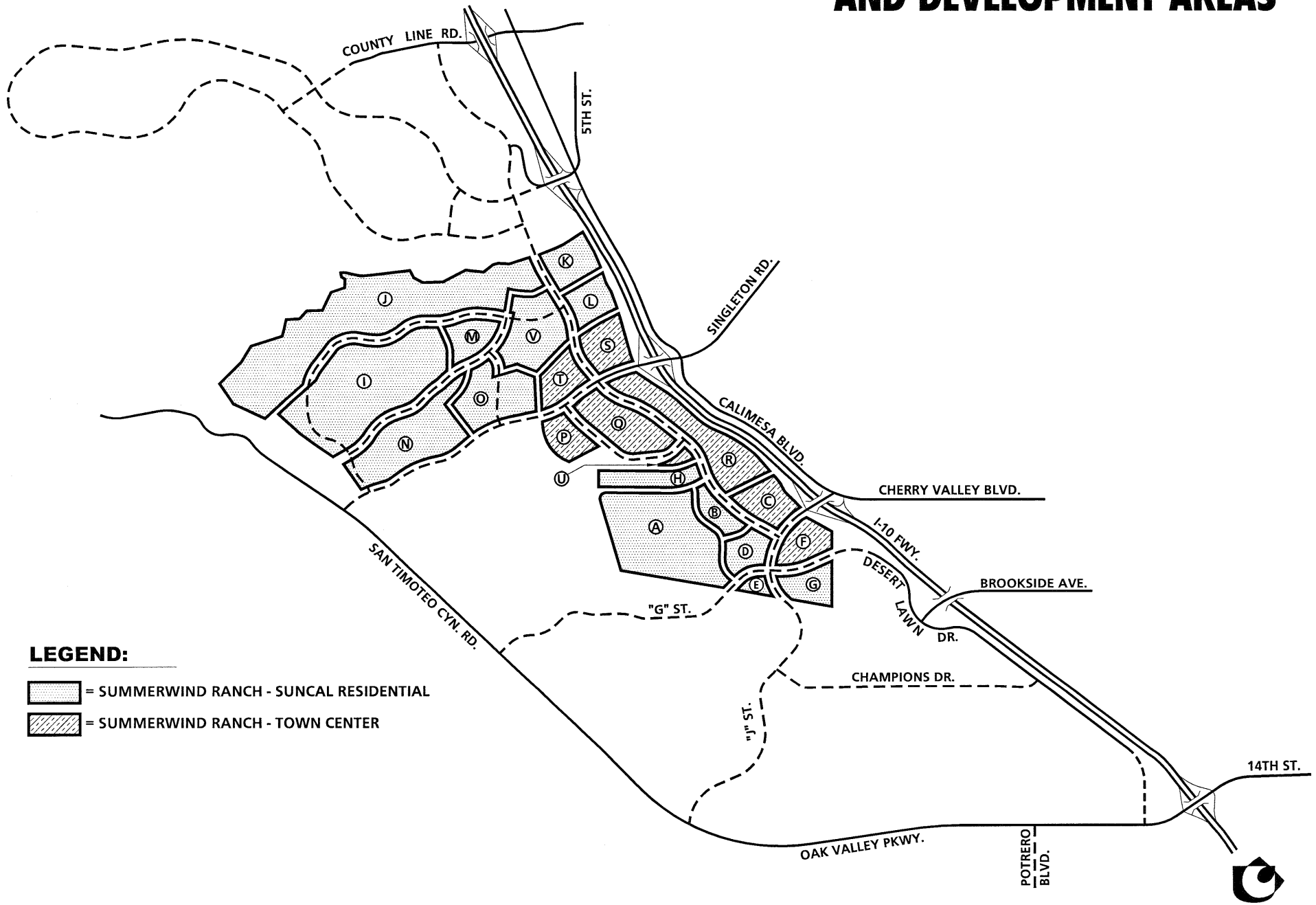
The Summerwind Ranch (SunCal Residential and Town Center) are shown on Exhibit 1-A.

The study area includes the following existing and future intersections:

Desert Lawn Drive (NS) at:

EXHIBIT 1-A

PROJECT LOCATION MAP AND DEVELOPMENT AREAS



URBAN CROSSROADS

- Cherry Valley Boulevard (EW) – Existing/Realigned
- Brookside Avenue (EW) – Existing
- Champions Drive (EW) – Existing
- Oak Valley Parkway (EW) – Existing/Realigned

Roberts Road (NS) at:

- County Line Road (EW) – Future
- Sandalwood Drive (EW) – Future
- Singleton Road (EW) – Future
- Cherry Valley Boulevard (EW) – Realigned

7th Street (NS) at:

- Sandalwood Drive (EW) – Existing

Woodhouse Road (NS) at:

- Singleton Road (EW) – Existing

I-10 Freeway Southbound Ramps (NS) at:

- County Line Road (EW) – Existing
- Sandalwood Drive (EW) – Existing
- Singleton Road (EW) – Existing
- Cherry Valley Boulevard (EW) – Existing
- Oak Valley Parkway (EW) – Existing

I-10 Freeway Northbound Ramps (NS) at:

- County Line Road (EW) – Existing
- 5th Street (EW) – Existing
- Singleton Road (EW) – Existing
- Cherry Valley Boulevard (EW) – Existing
- 14th Street (EW) – Existing

Calimesa Boulevard (NS) at:

- County Line Road (EW) – Existing
- 5th Street (EW) – Existing
- I-10 Northbound Ramps (EW) – Existing/Realigned
- Singleton Road (EW) – Existing/Realigned
- Cherry Valley Boulevard (EW) – Existing/Realigned

Potrero Boulevard (NS) at:

- Oak Valley Parkway (EW) – Future

"J" Street (NS) at:

- Oak Valley Parkway (EW) – Future

"G" Street (NS) at:

- San Timoteo Canyon Road (EW) – Future

Singleton Road (NS) at:

- San Timoteo Canyon Road (EW) – Future

The intent of this air quality evaluation is to analyze the potential emissions associated with the development of the project site and prepare a carbon monoxide hotspot analysis where appropriate for the intersections identified previously.

1.1.2 Land Use and Intensity

The development of Summerwind Ranch proposes to develop a total of 2,590 acres that includes the following proposed development:

- 2,381 single-family residential units
- 1,302 multi-family residential units
- 130 acres of commercial retail

- 130 acres of business park development
- two 600 student elementary schools
- 1,200 student Junior High School

1.1.3 Phasing and Timing

Consistent with the traffic analysis, the project analysis years have been identified as Existing Conditions, Phase 1 (2007), Phase 2 (2009), Phase 3 (2011), Year 2030 Project Buildout, and General Plan Buildout.

1.2 Atmospheric Setting

The climate of the proposed project site, technically called an interior valley subclimate of Southern California's Mediterranean-type climate, is characterized by warm summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. The clouds and fog that form along the area's coastline rarely extend as far inland as the project site, and if they do, they usually burn off quickly after sunrise. The most important weather pattern is associated with the warm season airflow across the populated areas of the Los Angeles Basin which brings polluted air into western Riverside County late in the afternoon. This transport pattern creates unhealthy air quality when the fringes of this "urban smog cloud" extend to the project site during the summer months.

Temperatures in the project area average a very comfortable 65°F year-round, with warm summer afternoons (95+ °F) and often cool winter mornings (around 35 °F). Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April with summers often being completely dry. Rainfall in the project vicinity averages 12.5 inches per year, but varies markedly from one year to the next.

Winds are an important parameter in characterizing the air quality environment of a project site because they both determine the regional pattern of air pollution transport and control the local rate of pollution dispersion near a source. Daytime winds are from the northwest at 6-8 mph as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds allow for good local mixing, but they may bring air pollutants from urbanized coastal areas into interior valleys. Strong thermal convection in the summer in the San Jacinto Valley ultimately dilutes the smog cloud from urbanized development, but the project area is too close to Los Angeles Basin emissions sources to completely escape the regional air quality degradation resulting from the photochemical airborne reactions that create the summer smog and haze throughout the air basin. At night, air drains off surrounding mountains and then pools on the valley floor. These breezes are cool and clean, but they may allow for local stagnation of air on the valley floor. Such near-calm winds, in conjunction with localized temperature inversions noted below, tend to maximize the impact of any local pollution emissions sources such as freeways, shopping centers, etc.

In addition to winds that control the rate and direction of pollution dispersal, Southern California is notorious for strong temperatures that limit the vertical depth through which pollution can be mixed. In summer, costal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high pressure cells over the ocean to the west. This marine/subsidence inversion allows for good local mixing, but acts like a giant lid over the basin.

A second inversion type forms on clear winter nights when cold air off the mountains sinks to the valley floor while the air aloft over the valley remains warm. This forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Thus, while summers are periods of hazy visibility and occasionally unhealthy air, winter is often a period of spectacular visibility and excellent air quality in the project area.

2.0 AIR QUALITY SETTING

This section of the report discusses current air quality standards and baseline air quality conditions within the study area.

2.1 Ambient Air Quality Standards (AAQS)

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors". Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended to 1987 for national AAQS, and has now been further extended in air quality problem areas like Southern California until 2010. Because California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 2-1.

The federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of

TABLE 2-1

AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone (O_3)	1 Hour	0.09 ppm (180 $\mu g/m^3$)	Ultraviolet Photometry	0.12 ppm (235 $\mu g/m^3$)	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	--		0.08 ppm (157 $\mu g/m^3$)		
Respirable Particulate Matter (PM_{10})	24 Hour	50 $\mu g/m^3$	Gravimetric or Beta Attenuation	150 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 $\mu g/m^3$		50 $\mu g/m^3$		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard		65 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 $\mu g/m^3$	Gravimetric or Beta Attenuation	15 $\mu g/m^3$		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 $\mu g/m^3$)	Non-dispersive Infrared Photometry (NDIR)	9 ppm (10 $\mu g/m^3$)	None	Non-dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 $\mu g/m^3$)		35 ppm (40 $\mu g/m^3$)		
	8 Hour (Lake Tahoe)	6 ppm (7 $\mu g/m^3$)		--		
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	--	Gas Phase Chemiluminescence	0.053 ppm (100 $\mu g/m^3$)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.25 ppm (470 $\mu g/m^3$)		--		
Lead	30 Days Average	1.5 $\mu g/m^3$	Atomic Absorption	--	--	High Volume Sampler and Atomic Absorption
	Calendar Quarter	--		1.5 $\mu g/m^3$	Same as Primary Standard	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	Ultraviolet Flourescence	0.030 ppm (80 $\mu g/m^3$)	--	Pararosoaniline
	24 Hour	0.04 ppm (105 $\mu g/m^3$)		0.14 ppm (365 $\mu g/m^3$)	--	
	3 Hour	--		--	0.5 ppm (1300 $\mu g/m^3$)	
	1 Hour	0.25 ppm (655 $\mu g/m^3$)		--	--	
Visibility Reducing Particles	8 Hour (10 am to 6 pm, PST)	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07 - 30 Miles or more for Lake Tahoe) due to the particles when the relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape		No Federal Standards		
Sulfates	24 Hour	25 $\mu g/m^3$	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	Ultraviolet Fluorescence			
Vinyl Chloride[9]	24 Hour	0.01 ppm (26 $\mu g/m^3$)	Gas Chromatography			

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter-PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be uqualed or exceeded. California ambient air qiality standards are listed in the Table of Standards in Section 70200 Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal or less than the standard, for PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25ºC and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25ºC and a reference pressure of 760 torr; ppm is this table refers to ppm by volume, or micromoles of pollutant per mole gas.

4. Any equivalent procedure which can be shown to the satisfaction of th ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8. New federal 8-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18, 1997. Contact U.S. EPA for further clarification and current federal policies.

9. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentration.

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currently known health effects. The EPA was charged with modifying existing standards or promulgating new ones where appropriate. The EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for particulate matter measuring less than 2.5 microns (called "PM-2.5"). New national AAQS were adopted on July 17, 1997. California standards for PM-2.5 are more stringent than the federal PM-2.5 standard.

2.2 Baseline Air Quality

The closest long-term air quality monitoring in the South Coast Air Basin (SCAB) for ozone, nitrogen oxides and 10-micron diameter particulate matter (PM-10) is carried out by the South Coast Air Quality Management District (SCAQMD) at the Banning Airport site. Additional sites were used to obtain data where it was not available at the Banning Airport site. The closest long-term air monitoring for carbon monoxide was obtained from the Lake Elsinore site located approximately 40 miles to the southwest of the project site, and information for ultra-fine particulate matter (PM-2.5) was obtained from Metropolitan Riverside County Monitoring Station 1 located approximately 30 miles west of the project site. The Perris monitoring site was not used for this project because all criteria pollutants monitored by this site were already captured at the closer Banning site. Exhibit 2-A depicts a regional map of the air monitoring stations maintained by the SCAQMD. Table 2-2 summarizes the last eight years of monitoring data from the aforementioned sites.

Ozone and particulates are seen to be the two most significant air quality concerns in the local area. The eight years of data in Table 2-2 shows the number of days standards were exceeded for the study area. Ozone is the pollutant that most often exceeds allowable standards within the study area, with fine particulates (PM-10) also exceeding allowable standards within the study area on a regular basis.

More localized pollutants such as carbon monoxide, nitrogen oxides, lead, etc. are very low near the project site because background levels even in Riverside

EXHIBIT 2-A

RIVERSIDE COUNTY AIR MONITORING STATIONS

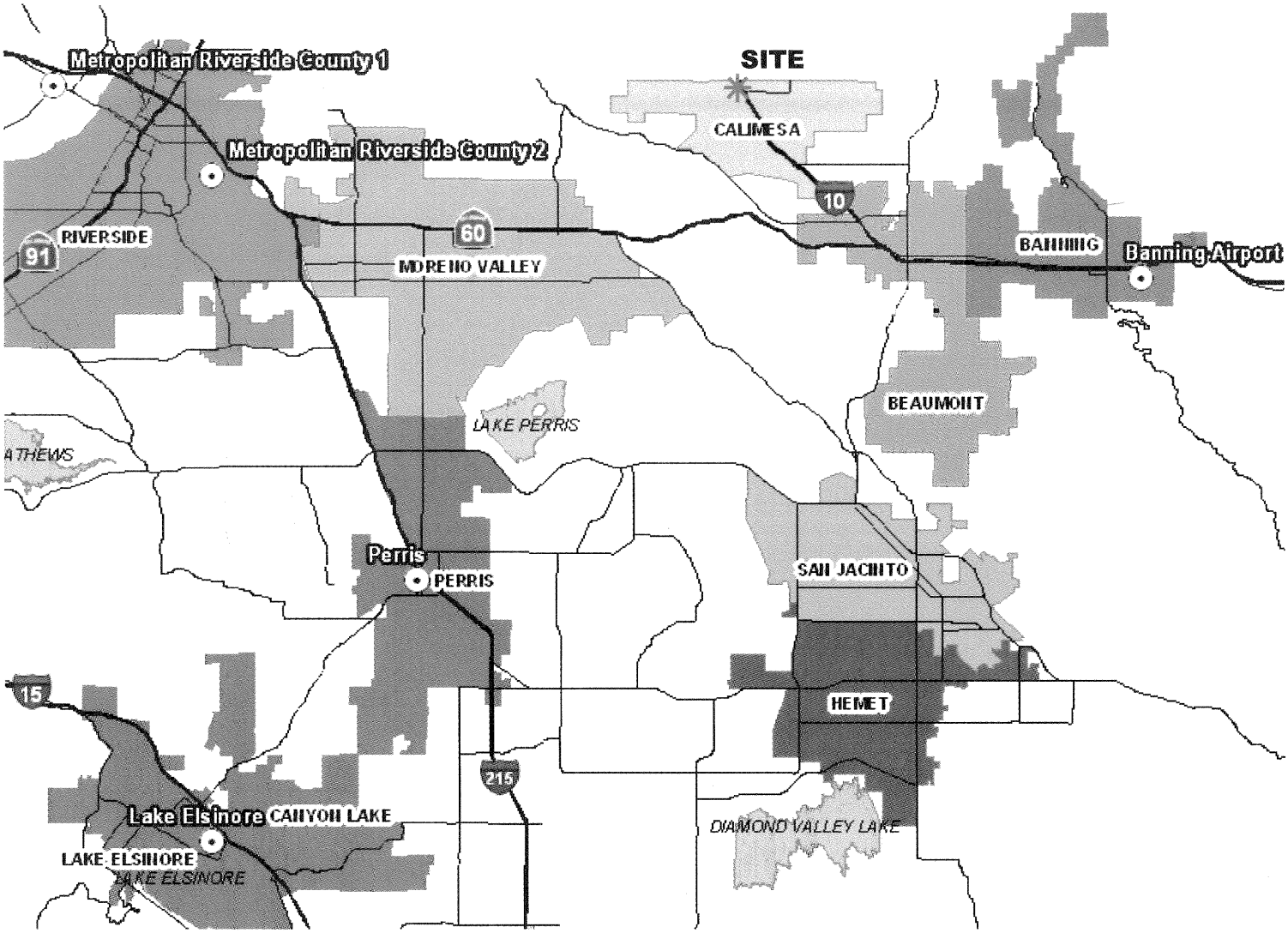

TABLE 2-2

CALIMESA AREA AIR QUALITY MONITORING SUMMARY - 1996-2003

POLLUTANT / STANDARD	1996	1997	1998	1999	2000	2001	2002	2003
Ozone:								
1- Hour > 0.09 ppm (days)	63	34	67	55	52	63	64	75
1- Hour > 0.12 ppm (days)	25	2	25	5	4	16	13	27
8- Hour $\geq$ 0.08 ppm (days)	XX	9	52	33	39	49	52	63
Max. 1-Hour Conc. (ppm)	0.2	0.13	0.17	0.14	0.14	0.149	0.16	0.17
Carbon Monoxide[1]:								
1- Hour > 20. ppm (days)	0	0*	0	XX	XX	XX	XX	XX
8- Hour > 9. ppm (days)	0	0*	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	9	7	5	XX	4	2	3	4
Max. 8-Hour Conc. (ppm)	5	5.8	4.6	XX	2	2	2.0	1.3
Nitrogen Dioxide:								
1-Hour > 0.25 ppm (days)	0	0*	1	1	0	XX	0	0
Max. 1-Hour Conc. (ppm)	0.11	0.12*	0.26	0.31	0.21	0.24	0.15	0.15
Particulate Lead [2]:								
1-Month $\geq$ 1.5 ug/m^3 (months)	0.06	0.07	0.08	0.06	0.06	0.04	0.03	XX
Max 1-Hr Conc. (ug/m^3)	0.04	0.04	0.04	0.05	0.05	0.03	0.02	XX
Particulate Sulfate [2]:								
24-Hour $\geq$ 25. ug/m^3 (% samples)	0	0	0	0	0	0.0	0	0
Max 24-Mon. Conc. (ug/m^3)	14.9	13.1	10.1	0.7	11	10.7	11.7	10.1
Inhalable Particulates (PM-10) :								
24-Hour > 50 ug/m^3 (days exceeded/sampled)	10/52*	14/57	2/52*	4/34*	5/59	7/54	6/54	9/60
24-Hour > 150 ug/m^3 (days exceeded/sampled)	0/60	1/57	0/52*	0/34*	0/59	1/54	0/54	0/60
Max. 24-Hour Conc. (ug/m^3)	96	227	62*	86*	69	219	70	79
Ultra-Fine Particulates (PM-2.5) [2]:								
24-Hour > 65 pg/m^3(days exceeded/sampled)	XX	XX	XX	XX	11/304*	19/325	8/327	8/350
Max. 24-Hour Conc. (pg/m^3)	XX	XX	XX	111.2	119.6*	98	77.6	104.3

XX = Pollutant not monitored

Data Obtained from Banning Airport Monitoring Station unless otherwise noted.

* Less than 12 months of data. May not representative.

[1] Data obtained from Lake Elsinore Monitoring Station

[2] Data obtained from Metropolitan Riverside County Monitoring Station 1

Source: South Coast AQMD (www.aqmd.gov) - Banning, Lake Elsinore, and Metropolitan Riverside County 1 Area Air Monitoring Station data summaries.

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rarely exceed allowable levels. Primary sources of these localized emissions are traffic congestion, internal combustion engines, mobile sources, smelters/battery plants, and there are almost no sources of such emissions near the project site.

2.3 Air Quality Management Planning

The air Southern Californians breathe continues to get cleaner, with recent years registering the cleanest in decades. The vast improvement in air quality is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources outlined in its Air Quality Management Plan (AQMP). However, the air in Southern California is far from meeting all federal and state air quality standards and, in fact, is among the worst in the nation. To reach the clean air goal in the few years remaining until Clean Air Act deadlines, Southern California must not only continue its diligence but intensify its pollution reduction efforts.

In 1988, because of uncertainty in federal Clean Air Act reauthorization, the California Legislature enacted the California Clean Air Act (CCAA). The CCAA requires that regional emissions be reduced by 5 percent per year until attainment can be demonstrated. In July 1991, the SCAQMD adopted a revised AQMP which was designed to meet the CCAA requirements.

The new PM-2.5 annual average standard was set at 12 micrograms per cubic meter. In addition CARB also revised the monitoring methods for these standards and delayed action on the proposed 24-hour PM-2.5 standard in light of recent findings related to statistical issues in several key short-term exposure health effects studies. Obviously achieving these standards poses an even greater challenge than meeting the new federal 8-hour ozone and PM-2.5 standards.

On June 2002, the California Air Resources Board (CARB) also adopted new, stricter standards for particulate matter that would affect both the coarse as well as fine particulate fraction. The newly adopted standards reduce the PM-10 annual

average standard from 30 micrograms per cubic meter to 20 micrograms per cubic meter and retained the 24-hour PM-10 standard of 50 micrograms per cubic meter. The new PM-2.5 annual average standard was set at 12 micrograms per cubic meter. In addition, CARB also revised the monitoring methods for these standards and delayed action on the proposed 24-hour PM-2.5 standard in light of recent findings related to statistical issues in several key short-term exposure health effects studies. Obviously achieving these standards poses an even greater challenge than meeting the new federal 8-hour ozone and PM-2.5 standards.

A mixed use development project such as the Summerwind Ranch development relates to the air quality planning process through the growth forecasts that were used as inputs into the regional transportation model. If a proposed development is consistent with those growth forecasts, and if all available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is consistent with the AQMP. Although the SCAQMD recommends the projects that are not consistent with the AQMP should be designated as having a significant air quality impact, consistency itself is not considered as a sufficient basis to support a finding of a less-than-significant regional impact. The Summerwind Ranch development is consistent with the regional growth forecasts.

The AQMP contains a number of land use and transportation control measures (TCMs) which are divided into three categories:

- High occupancy vehicle (HOV) measures
- Transit and Systems Management measures
- Information-based measures

The AQMP does not contemplate that these measures would be implemented directly on any single development basis. Rather, the AQMP establishes a regulatory scheme of the appropriate control measures being implemented by cities and counties through their adoption of the control measures as ordinances, capital

improvement programs, funding priorities, etc. The Summerwind Ranch development complies with the County's air quality program. Policies such as those related to energy efficiency and conservation are supported by the project through the use of energy efficient water heaters and appliances, and policies related to stationary pollution sources are supported by the projects adherence to construction practices that reduce fugitive dust and excess construction related emissions where possible (e.g., consistent with the SCAQMD Rules 403).

3.0 PROJECT AIR QUALITY IMPACT

Land uses such as those proposed for the Summerwind Ranch development potentially impacts air quality predominately through automotive emissions associated with vehicular travel to and from residences and commercial business. The role of area source emissions (e.g., emissions from water heaters, consumer products, etc.) in air quality have been increasingly recognized (particularly for reactive organic compounds or ROCs). Table 3-1 provides the project trip generation rates, while Table 3-2 summarizes the project trip generation characteristics. Trip generation rates and characteristics were available from the report, Summerwind Ranch, Traffic Impact Analysis (Urban Crossroads, Inc., October 2004).

Any single project typically does not cause enough traffic and associated air pollutants to be generated as to individually threaten clean air standards. It is typically the cumulative effect of hundreds of such developments that causes the small incremental impact from any one development to become cumulatively significant. Minor secondary emissions during construction, from increased fossil-fueled energy utilization and from small miscellaneous sources will also be generated, but these are usually much smaller in both duration and volume than the mobile source emissions.

3.1 Standards of Significance

Many air quality impacts which derive from dispersed mobile sources (i.e., the dominant pollution generators in the basin) often occur hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. The SCAQMD has therefore developed suggested significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The

Table 3-1
TRIP GENERATION RATES[1]

LAND USE	UNITS[2]	PEAK-HOUR				DAILY
		AM		PM		
		IN	OUT	IN	OUT	
Single-Family Detached Residential	DU	0.19	0.56	0.64	0.37	9.57
Multi-Family Attached Residential	DU	0.10	0.41	0.40	0.22	6.72
Elementary School	STU	0.23	0.19	0.03	0.06	1.29
Middle School	STU	0.29	0.24	0.08	0.07	1.62
Business Park	TSF	1.21	0.23	0.34	1.15	10.00
Commercial Retail	TSF	0.52	0.33	1.80	1.94	43.92

[1] Source: Institute of Transportation Engineers (ITE), Trip Generation, Seventh Editions, 2003
[2] DU = dwelling unit; STU = students; AC = Acre; TSF = thousand square feet

Table 3-2 (1 of 2)
SUMMERWIND RANCH - SUNCAL RESIDENTIAL
PROJECT TRIP GENERATION

PROJECT PHASING	TRAFFIC ANALYSIS ZONES	PLANNING AREA	LAND USE	PROPOSED QUANTITY1	PEAK-HOUR AM IN	PEAK-HOUR AM OUT	PEAK-HOUR PM IN	PEAK-HOUR PM OUT	DAILY
PHASE 1	A	A-4	Single-Family Detached Residential	169 DU	32	95	108	63	1,617
		A-7	Single-Family Detached Residential	93 DU	18	52	60	34	890
		SUBTOTAL			50	147	168	97	2,507
	D	A-3	Single-Family Detached Residential	79 DU	15	44	51	29	756
	E	A-2	Single-Family Detached Residential	58 DU	11	32	37	21	555
	G	A-1	Single-Family Detached Residential	134 DU	25	75	86	50	1,282
	H	A-8	Single-Family Detached Residential	103 DU	20	58	66	38	986
	SUBTOTAL - PHASE 1				**121**	**356**	**408**	**235**	**6,086**
PHASE 2	M	C-2	Elementary School	600 STU	138	114	18	36	774
	N	B-7	Single-Family Detached Residential	64 DU	12	36	41	24	612
		B-9	Single-Family Detached Residential	51 DU	10	29	33	19	488
		B-11	Single-Family Detached Residential	87 DU	17	49	56	32	833
		B-12	Single-Family Detached Residential	81 DU	15	45	52	30	775
		B-13	Single-Family Detached Residential	95 DU	18	53	61	35	909
		SUBTOTAL			72	212	243	140	3,617
	O	B-4	Single-Family Detached Residential	118 DU	22	66	76	44	1,129
		B-5	Single-Family Detached Residential	66 DU	13	37	42	24	632
		B-6	Single-Family Detached Residential	55 DU	10	31	35	20	526
		SUBTOTAL			45	134	153	88	2,287
	SUBTOTAL - PHASE 2				**255**	**460**	**414**	**264**	**6,678**
	CUMULATIVE TOTAL - PHASE 2				**376**	**816**	**822**	**499**	**12,764**
PHASE 3	B	A-6	Middle School	1,200 STU	348	288	96	84	1,944
	I	C-3	Single-Family Detached Residential	75 DU	14	42	48	28	718
		C-4	Single-Family Detached Residential	120 DU	23	67	77	44	1,148
		C-9	Single-Family Detached Residential	75 DU	14	42	48	28	718
		SUBTOTAL			51	151	173	100	2,584
	V	B-1	Community Recreation	4.3 TSF	4	4	12	12	389
		B-2	Multi-Family Attached Residential	212 DU	21	87	85	47	1,425
		B-3	Single-Family Detached Residential	111 DU	21	62	71	41	1,062
		D-1	Multi-Family Attached Residential	332 DU	33	136	133	73	2,231
		SUBTOTAL			79	289	301	173	5,107
	SUBTOTAL - PHASE 3				**478**	**728**	**570**	**357**	**9,635**
	CUMULATIVE TOTAL - PHASE 3				**854**	**1,544**	**1,392**	**856**	**22,399**
2030	J	C-7	Single-Family Detached Residential	114 DU	22	64	73	42	1,091
		C-8	Single-Family Detached Residential	102 DU	19	57	65	38	976
		D-3	Single-Family Detached Residential	111 DU	21	62	71	41	1,062
		D-4	Single-Family Detached Residential	183 DU	35	102	117	68	1,751
		D-6	Elementary School	600 STU	138	114	18	36	774
		D-7	Single-Family Detached Residential	80 DU	15	45	51	30	766
		D-8	Single-Family Detached Residential	157 DU	30	88	100	58	1,502
		SUBTOTAL			280	532	495	313	7,922
	K	E-1	Multi-Family Attached Residential	309 DU	31	127	124	68	2,076
	L	E-2	Multi-Family Attached Residential	449 DU	45	184	180	99	3,017
	SUBTOTAL - 2030				**356**	**843**	**799**	**480**	**13,015**
	CUMULATIVE TOTAL - 2030				**1,210**	**2,387**	**2,191**	**1,336**	**35,414**

[1] DU = Dwelling Unit; TSF = Thousand Square Feet; AC = Acre; STU = Students

Table 3-2 (2 of 2)
SUMMERWIND RANCH - TOWN CENTER
PROJECT TRIP GENERATION

PROJECT PHASING	TRAFFIC ANALYSIS ZONES	PLANNING AREA	LAND USE	PROPOSED QUANTITY[1]	PEAK-HOUR AM IN	PEAK-HOUR AM OUT	PEAK-HOUR PM IN	PEAK-HOUR PM OUT	DAILY
PHASE 2	C	TC-7	Commercial Retail (196 TSF)	195.6 TSF	143	92	467	507	10,496
			• Pass-By Trips/Internal Capture	*20%*	*-29*	*-18*	*-93*	*-101*	*-2,099*
			SUBTOTAL		114	74	374	406	8,397
	T	TC-2.1	Business Park (419 TSF)	91.0 TSF	107	21	27	92	1,140
	SUBTOTAL - PHASE 2				**221**	**95**	**401**	**498**	**9,537**
PHASE 3	F	TC-8	Commercial Retail (127 TSF)	127.2 TSF	111	70	352	382	7,945
			• Pass-By Trips/Internal Capture	*20%*	*-22*	*-14*	*-70*	*-76*	*-1,589*
			SUBTOTAL		89	56	282	306	6,356
	P	TC-3	Business Park (469 TSF)	468.6 TSF	553	103	141	469	5,783
	S	TC-1	Commercial Retail (196 TSF)	196.4 TSF	143	92	469	509	10,539
			• Pass-By Trips/Internal Capture	*20%*	*-29*	*-18*	*-94*	*-102*	*-2,108*
			SUBTOTAL		114	74	375	407	8,431
	T	TC-2.2	Business Park (419 TSF)	328.4 TSF	388	76	99	332	4,115
	U	TC-6	Commercial Retail (26 TSF)	25.6 TSF	42	27	122	132	2,786
			• Pass-By Trips/Internal Capture	*20%*	*-8*	*-5*	*-24*	*-26*	*-557*
			SUBTOTAL		34	22	98	106	2,229
	SUBTOTAL - PHASE 3				**1,178**	**331**	**995**	**1,620**	**26,914**
	CUMULATIVE TOTAL - PHASE 3				**1,399**	**426**	**1,396**	**2,118**	**36,451**
2030	Q	TC-4	Commercial Retail (455 TSF)	455.2 TSF	237	150	819	883	18,190
			• Pass-By Trips/Internal Capture	*20%*	*-47*	*-30*	*-164*	*-177*	*-3,638*
			SUBTOTAL		190	120	655	706	14,552
	R	TC-5	Business Park (691 TSF)	691.0 TSF	808	152	200	670	8,175
	SUBTOTAL - 2030				**998**	**272**	**855**	**1,376**	**22,727**
	CUMULATIVE TOTAL - 2030				**2,397**	**698**	**2,251**	**3,494**	**59,178**

[1] TSF = Thousand Square Feet

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1993 SCAQMD CEQA Air Quality Handbook states that any projects in the SCAB with daily emissions that exceed any of the following thresholds should be considered as having an individually and cumulatively significant air quality impact:

Reactive Organic Compounds (ROC)	-	55 pounds/day
Nitrogen Oxides (NO_x)	-	55 pounds/day
Carbon Monoxide (CO)	-	550 pounds/day
Sulfur Dioxide (SO_2)	-	150 pounds/day
Particulate Matter (PM-10)	-	150 pounds/day

During construction, the above significance thresholds for ROC and NO_x, the two main ozone precursor emissions, are relaxed to 75 and 100 pounds per day, respectively. The SCAQMD also supports the use of quarterly thresholds for construction emissions only, and are as follows:

Reactive Organic Compounds (ROC)	-	2.5 tons/quarter
Nitrogen Oxides (NO_x)	-	2.5 tons/quarter
Carbon Monoxide (CO)	-	24.75 tons/quarter
Sulfur Dioxide (SO_2)	-	6.75 tons/quarter
Particulate Matter (PM-10)	-	6.75 tons/quarter

Per SCAQMD guidelines, if a daily emission threshold is exceeded regardless of quarterly results, the project is determined to have a significant air quality impact for construction related emissions. Therefore, a more conservative approach is to evaluate construction emissions based on daily emissions instead of quarterly emissions. This analysis takes the conservative approach to construction emissions, and analyzes emissions on a daily basis rather than quarterly.

It should be noted that these thresholds do not take into account several important considerations:

- Emission levels from one large project may exceed thresholds while those from numerous smaller projects with identical emissions might not, even though the regional impact is the same.

- Large developments have a greater opportunity to effectively implement transportation control measures (TCMs) because of a greater potential participant pool in trip/VMT diversion programs.

- Project-related emissions and their regional impact are likely to be already incorporated into regional growth projections.

The Lead Agency may make a finding of a significant impact for projects exceeding the SCAQMD thresholds, but use as many of the above criteria in a statement of overriding considerations as are applicable.

Additional indicators of potentially significant air quality impacts are listed in the SCAQMD Handbook that should be used as screening criteria to evaluate the need for further analysis with respect to air quality. Whenever possible, the project should be evaluated in a quantitative analysis; otherwise, a qualitative analysis is appropriate. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or State ambient air quality standards by either violating or contributing to an existing or projected air quality violation;

- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP;

- Project could generate vehicle trips that cause a CO hotspot;

- Project might have the potential to create or be subjected to objectionable odors;

- Project could have hazardous materials on site and could result in an accidental release of air toxic emissions;

- Project could emit an air toxic contaminant regulated by District rules or that is on a federal or State air toxic list;

- Project could involve disposal of hazardous waste;
- Project could be occupied by sensitive receptors near a facility that emits air toxics or near CO hotspots;
- Project could emit carcinogenic air contaminants that could pose a cancer risk.

Other than the potential for the project to generate a CO hotspot (a detailed CO hotspot analysis is included later in this report), the rest of the above mentioned screening criteria were not met for the Summerwind Ranch development. Potential impact significance thus relates mainly to SCAQMD CEQA Handbook numerical emissions thresholds identified previously.

3.2 Project-Related Sources of Potential Impact

Intensification of land uses potentially impacts ambient air quality on two scales of motion. As cars drive throughout Southern California, the small incremental contribution to the basin air pollution burden from any single vehicle is added to that from several million other vehicles. The impact from the Summerwind Ranch development, even if it generates a significant number of new vehicle trips, is small on a regional scale. Basin wide air quality impacts are, therefore, addressed in terms of project compatibility with regional air quality plans. If any given project or plan has been properly incorporated into basin wide growth projections which are the basis for regional air quality and transportation planning, then the basin wide impact of any proposed development is presumed, by definition, to be less than significant.

Locally, changes in the location of any collection of automotive sources, or changes in the number of vehicles or travel speeds may impact the microscale air quality around any given development site. Traffic increases not only contribute air pollutants in direct proportion to their cumulative percentage of traffic volume growth, but they may slow all existing traffic to slower, more inefficient travel

speeds. The development traffic and air quality impact is thus potentially compounded.

Short-term construction activity emissions will occur during project buildout. Such emissions include on-site generation of dust and equipment exhaust, and off-site emissions from construction employee's commuting and/or trucks delivering building materials.

For project related emissions the URBEMIS 2002 v. 7.5.0 model was used to forecast expected emissions levels for both construction and operational activities. Output from the model runs for both construction and operational scenarios are provided in Appendix "A" and "B" respectively. Table 3-3 summarizes air emissions for construction, area source and operational activities.

3.3 Construction Activity Impacts

Dust is normally a major concern during construction of new buildings and infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.).

For construction activity impacts it is assumed that a conservative development schedule includes building approximately 450 DU (dwelling units), and 1,237 TSF (thousand square feet) of commercial/business space over a 24 month period. Use of these assumptions for average conditions is likely a "worst case" scenario for analysis purposes only. Exact development phasing will most likely depend on market demand and rate of absorption.

PM-10 emissions were calculated by assuming that, at worst case, 175 acres of the project area is under simultaneous heavy construction at any point during the

TABLE 3-3

PROJECT EMISSIONS SUMMARY

SCAQMD Daily Thresholds for Project Operations (pounds per day)					
	ROG	NOx	CO	PM10	SOx
Daily (lbs/day)	55	55	550	150	150
SUMMER OPERATING EMISSIONS					
Area Source	**186.29**	**62.01**	**40.77**	**0.13**	0.48
Operations	**202.36**	**135.26**	**1951.35**	**806.01**	5.65
total	**388.65**	**197.27**	**1992.12**	**806.14**	6.13
% threshold	**707%**	**359%**	**362%**	**537%**	4%
WINTER OPERATING EMISSIONS					
Area Source	**184.84**	**61.66**	**25.68**	**0.12**	0.00
Operations	**160.09**	**182.16**	**1552.69**	**806.01**	4.57
total	**344.93**	**243.82**	**1578.37**	**806.13**	4.57
% threshold	**627%**	**443%**	**287%**	**537%**	3%
SCAQMD Daily Thresholds for Construction (pounds per day)					
	ROG	**NOx**	**CO**	**PM10**	**SOx**
Daily (lbs/day)	75	100	550	150	150
PROJECT CONSTRUCTION EMISSIONS					
Construction	**2194.43**	**2,030.90**	**2727.98**	**340.73**	0.04
% threshold	**2926%**	**2031%**	**496%**	**227%**	0%

MITIGATED PROJECT EMISSIONS SUMMARY

SCAQMD Daily Thresholds for Project Operations (pounds per day)					
	ROG	NOx	CO	PM10	SOx
Daily (lbs/day)	55	55	550	150	150
SUMMER OPERATING EMISSIONS					
Area Source	**185.74**	**55.39**	**37.94**	**0.12**	0.48
Operations	**179.43**	**114.21**	**1648.89**	**679.29**	4.77
total	**365.17**	**169.60**	**1686.83**	**679.41**	5.25
% threshold	**664%**	**308%**	**307%**	**453%**	4%
WINTER OPERATING EMISSIONS					
Area Source	**184.3**	**55.03**	**22.85**	**0.1**	0
Operations	**136.84**	**153.76**	**1313.08**	**679.29**	3.85
total	**321.14**	**208.79**	**1335.93**	**679.39**	0.25
% threshold	**584%**	**380%**	**243%**	**453%**	0%
SCAQMD Daily Thresholds for Construction (pounds per day)[1]					
	ROG	**NOx**	**CO**	**PM10**	**SOx**
Daily (lbs/day)	75	100	550	150	150
PROJECT CONSTRUCTION EMISSIONS					
Construction	**200.24**	**306.65**	129.78	65.71	0.04
% threshold	**267%**	**307%**	24%	44%	0%

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buildout lifetime of the project. Major grading activity for the construction period being analyzed is assumed to last approximately three months.

In addition to fine particles that remain suspended in the atmosphere semi-indefinitely, construction activities generate many larger particles with shorter atmospheric residence times. This dust is comprised mainly of large diameter inert silicates that are chemically non-reactive and are further readily filtered out by human breathing passages. These fugitive dust particles are therefore more of a potential soiling nuisance as they settle out on parked cars, outdoor furniture, or landscape foliage rather than any adverse health hazard. Any nuisance potential will tend to be highly localized when a new tract is built in very close proximity to an already completed development.

Exhaust emissions will result from both on-road and off-road heavy equipment during site grading and construction activities. The types and numbers of equipment will vary among contractors such that these emissions can not be quantified with a great deal of certainty. It is assumed that a project the size of Summerwind Ranch may utilize approximately 20-40 pieces of heavy equipment at any one time during mass grading and construction activities. Assuming that 40 pieces of heavy equipment were operated an average of 8 hours per day for three months, the estimated emissions from construction activity that would be anticipated are shown in Table 3-3.

Construction activity air quality impacts occur mainly in close proximity to individual disturbance areas. However, there may be some "spill-over" into the surrounding community. That spill-over may be physical as vehicles drop or carry out dirt or silt is washed into public streets. Spill-over may also occur via congestion effects. Construction may entail roadway encroachment, detours, lane closures and competition between construction vehicles (trucks and contractor employee commuting) and ambient traffic for available roadway capacity. Emissions controls require good housekeeping procedures and a construction traffic management plan that maintains such "spill-over" effects at a less than significant level.

Volatile organic compounds (VOCs) and reactive organic compounds (ROCs) are terms used interchangeably. VOCs and ROCs are primarily hydro-carbons formed from the internal combustion of vehicles and fuel evaporation and approximately 37 percent of VOCs and ROCs are a result of vegetation. VOCs and ROCs combined with nitrogen oxides causes increased ozone production. Detailed sources of VOCs and ROCs are discussed in the following paragraphs.

Construction activities also generate evaporative emissions of VOCs from paints, solvents, asphalt, roofing tar and other coatings. The volatility of the materials used in asphalt is regulated by the AQMD rules, as are paints and solvents. Even water-based paint, however, still contains a high percentage of VOCs such that paint and other architectural coatings are the primary source of construction-related VOC emissions. Typical water-based paints contain around 2 pounds of VOCs per gallon of paint ("CEQA Air Quality Handbook", Table A9-13-C). Application of more than 37.5 gallons per day of paint would cause the SCAQMD threshold of 75 pounds per day of VOCs to be exceeded. A painting schedule to limit average weekly surface coating to less than 225 gallons (225 gal.÷ 6 days = 37.5 gal./day) is recommended to maintain VOC emissions impact potential at less than significant levels.

Overlap between painting activities at one project phase and on-going construction at another phase could occur. Construction phasing will depend upon the rate of absorption of new homes. A small amount of ROC emissions during other construction activities could be released concurrently with VOC (ROC) emissions from house painting. The level of additional constraint to maintaining a less than significant VOC impact during surface coating operations is not precisely known, but is relatively small.

Based on this analysis, the project will result in short-term significant construction impacts (see Table 3-3). The technology does not currently exist to build out

roughly 450 residential dwelling units and 1,237 TSF (thousand square feet) of commercial/business space in a semi-arid climate without creating some fugitive dust, equipment exhaust and VOC emissions. These temporary impacts can, however, be substantially reduced if a commitment is made to pursue available mitigation as aggressively as possible. The following mitigation measures have the potential to reduce the degree of "excess" emissions and the number of days with potentially significant impacts:

Applicable Rule 403 Measures:

- Water active sites as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction (locations where grading is to occur will be thoroughly watered prior to earthmoving).
- Water/stabilize soil prior to, during and following cut and fill activities.
- A minimum soil moisture content of 12 percent must be maintained during earth-moving activities per the ASTM method D-2216.
- All trucks hauling dirt, sand, soil or other loose materials are to be covered, or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.
- Pave construction access roads at least 100 feet onto the site from main road.
- Traffic speeds on all unpaved roads shall reduce to 15 mph or less, water roads every two hours of active operations, and/or apply a chemical stabilizer to all unpaved surfaces.

Additional SCAQMD CEQA Air Quality Handbook Dust Measures:

- Revegetate disturbed areas as quickly as possible.
- All streets shall be swept once a day if visible soil materials are carried to adjacent streets.

Mitigation Measures for Construction Equipment and Vehicles Exhaust Emissions:

- Use of construction equipment with low emission factors and high energy efficiency where possible.
- Perform regularly scheduled engine maintenance to minimize equipment emissions.
- Use of alternative fuels such as ultra-low sulfur diesel or off-road construction vehicles/equipment where possible.
- Use of electric or diesel powered equipment rather than gasoline powered engines where feasible.

Mitigation for VOC Emissions:

- See section 4.0 for appropriate mitigation measure.

3.4 Operational (Vehicular and Area Source) Impacts

The project-related area source emissions burdens, along with a comparison of SCAQMD recommended significance thresholds, are shown in Table 3-3 (presented previously). It is assumed that both wood burning stoves and natural wood burning fireplaces will not be included in the proposed development. The use of "clean burning" fireplaces (e.g., electric or natural gas) rather than traditional inefficient wood burning fireplaces is consistent with the County of Riverside Countywide Design Standards and Guidelines adopted by the Riverside County Board of Supervisors on January 13, 2004.

Project operational (vehicular) impacts are dependent on both overall daily vehicle trip generation and the effect of the project on peak hour traffic volumes and traffic operations in the vicinity of the project. By far, the largest project related air quality impact centers on the 95,366 vehicle trips associated with the project. Overall project daily emissions are evaluated first, followed by analysis of the potential peak hour "micro-scale" CO air quality impacts of the project.

The project-related operations emissions burdens, along with a comparison of SCAQMD recommended significance thresholds, are shown in Table 3-3 (previously presented). The project related emissions levels for ozone forming pollutants ROC, NO_x, CO and particulate matter PM-10 exceed the SCAQMD thresholds even after reasonable mitigation by 584%, 380%, 243%, and 453%, respectively.

However, it should be noted that growth assumptions for Riverside County call for the conversion of agriculture and ranch lands to be converted to other transportation intensive land uses over the next 20 years. The Summerwind Ranch development provides housing and jobs within the Riverside County area that are well within forecast levels.

Recommended mitigation measures to help reduce project operational (vehicular and area source) impacts are presented in section 4.0 of this report.

3.5 Secondary Effects Evaluation

The potential impact of the project on sensitive receptors has also been considered. Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

The only potential sensitive receptors included in the project are the residential, school and active park components of the project. The residential and school uses are not located within a quarter mile of any facilities emitting toxic pollutants and/or odors, nor are the residential uses located adjacent to a congested roadway or other area with a high background carbon monoxide concentration. Therefore, no significant impact associated with sensitive receptors is anticipated as a result of the project.

The potential for the project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The project does not include any land uses that are expected to generate objectionable odors, nor does the proposed project include any of the land uses typically associated with odor complaints. Therefore, no significant impact related to the emission of objectionable odors is anticipated.

3.6 Microscale Carbon Monoxide Air Quality Impacts

3.6.1 Evaluation Criteria

A hotspot CO analysis is required to predict CO levels at adjacent intersections and project access locations from vehicle operations if the intersections are identified as having a significant impact on air quality.

More specifically, criteria established by the SCAQMD indicates a CO analysis should be performed when air quality has been identified as having a significant impact. These impacts on transportation/traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increases by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day
- An increase in customer traffic by more than 700 visits per day.

For purposes of this analysis, a CO hotspot evaluation is required for all intersections where LOS is D, E or F.

3.6.2 Methodology

The CARB's EMFAC2002 model was used to determine emissions factors for both idling and running vehicles which were used as inputs into the EPA's CAL3QHC dispersion model which was used to determine "hotspot" concentrations near intersections.

CAL3QHC Version 2.0 is a Gaussian-type line-source air pollutant dispersion model. It was developed by the EPA based on a California model (CALINE3) and is the recommended model for predicting pollutant concentrations near intersections. CAL3QHC input variables include free-flow and calculated idle emission factors; traffic volumes, LOS values, and

signal timing; roadway geometries; site characteristics; and meteorological conditions. In 1991, the EPA sponsored an evaluation of different dispersion models to test performance and accuracy; the results of this evaluation indicated that CAL3QHC was one of the best performing models. For this analysis the use of CAL3QHC over the CALINE4 dispersion model is based on the premise that CAL3QHC more accurately depicts CO concentrations near intersections because the CAL3QHC dispersion model takes into account queuing at intersections, LOS values, and signal timing, whereas CALINE4 is a dispersion model designed for analyzing concentrations on roadway lengths (using approach and departure speeds) rather than at intersections.

The methodology used to analyze potential CO hotspot intersections is based on procedures outlined by both SCAQMD (CEQA Handbook) and the EPA (USEPA, *Guideline for Modeling Carbon Monoxide from Roadway Intersections,* EPA-454/R-95-005, 1992). The procedures were used to calculate worst-case one-hour CO concentrations. Traffic data for existing conditions, and future scenarios were reviewed to identify intersections at which CO concentrations could have a potentially adverse impact (with and without project). The selection of worst-case intersections is based on the LOS of an intersection. The LOS is a measure of the operating conditions of an intersection based on the combined traffic volume, signal timing and related congestion and delay. The LOS delay is rated on a scale from A to F, with a LOS A describing intersection operations with very low delays (i.e., less than 10 seconds per vehicle) and an LOS F describing intersection operations with delays in excess of 80 seconds per vehicle (signalized intersections only). This condition is considered over saturation, which is when traffic volumes exceed the capacity of the intersection.

The level of services are defined for the various analysis methodologies as follows:

LEVEL OF SERVICE	AVERAGE TOTAL DELAY PER VEHICLE (SECONDS)	
	SIGNALIZED	UNSIGNALIZED
A	0 to 10.00	0 to 10.00
B	10.01 to 20.00	10.01 to 15.00
C	20.01 to 35.00	15.01 to 25.00
D	35.01 to 55.00	25.01 to 35.00
E	55.01 to 80.00	35.01 to 50.00
F	80.01 and up	50.01 and up

The existing and future scenarios evaluated in the traffic study and thus available for analysis from an air quality perspective include Existing Conditions, Phase 1 (2007), Phase 2 (2009), Phase 3 (2011), Year 2030 and General Plan Buildout. The peak hour traffic volume and traffic operations data has been obtained from Summerwind Ranch Traffic Impact Analysis (Urban Crossroads, Inc., October, 2004). For purposes of this analysis, a CO hotspot evaluation was performed at intersections where LOS was D, E, or F, which represent the worst-case scenario.

3.6.3 Analysis

According to 2003 air quality data (see Table 2-2 presented previously), the background 1 hour CO level for the study area is 4.0 parts per million (ppm). Per California Air Quality Standards for CO, the concentration of CO should not exceed 20.0 ppm for an averaging period of 1 hour. Therefore, microscale analysis showing a localized contribution to CO of 16.0 ppm would be required to exceed the allowable threshold.

Table 3-4 summarizes the existing conditions peak hour microscale CO analysis for the intersections at I-10 Freeway Southbound Ramps (NS) and County Line Road. None of the previously mentioned locations are projected to experience CO levels in excess of the allowable concentration

TABLE 3-4

EXISTING CONDITIONS CARBON MONOXIDE (CO) HOT SPOT LEVELS

#	INTERSECTION	AM	PM
1	I-10 Fwy. SB Ramps / County Line Rd.	4.50	4.60

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of 20.0 ppm. The highest projected CO hotspot level is 4.60 ppm. Appendix C contains a detailed output from the CAL3QHC model.

Table 3-5 summarizes the Phase 3 (Year 2011) microscale CO analysis for the intersections at I-10 Freeway Southbound Ramps (NS) and Oak Valley Parkway. None of the previously mentioned locations are projected to experience CO levels in excess of the allowable concentration of 20.0 ppm. The highest projected CO hotspot level is 7.00 ppm. Appendix D contains a detailed output from the CAL3QHC model.

Table 3-6 summarizes Year 2030 peak hour microscale CO analysis for the intersections at I-10 Freeway Southbound Ramps (NS) and Oak Valley Parkway (EW), I-10 Freeway Northbound Ramps (NS) and 14th Street. (EW), and Portero Boulevard (NS) and Oak Valley Parkway (EW). None of the previously mentioned locations are projected to experience CO levels in excess of the allowable concentration of 20.0 ppm. The highest projected CO hotspot level is 7.50 ppm. Appendix E contains a detailed output from the CAL3QHC model.

Table 3-7 summarizes General Plan Buildout peak hour microscale CO analysis for the intersections at 7th Street (NS) and Sandalwood Drive (EW), I-10 Freeway Southbound Ramps (NS) and Oak Valley Parkway (EW), Portero Boulevard (NS) and Oak Valley Parkway (EW), and "J" Street (NS) and Oak Valley Parkway (EW). None of the previously mentioned locations are projected to experience CO levels in excess of the allowable concentration of 20.0 ppm. The highest projected CO hotspot level is 7.40 ppm. Appendix F contains a detailed output from the CAL3QHC model.

Existing traffic volumes combined with project volumes did not result in a CO hotspot.

TABLE 3-5

PHASE 3 (2011) PROJECT CONDITIONS CARBON MONOXIDE (CO) HOT SPOT LEVELS

#	INTERSECTION	AM	PM
1	I-10 Fwy. SB Ramps / Oak Valley Pkwy.	6.00	7.00

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TABLE 3-6

2030 PROJECT BUILDOUT
CONDITIONS CARBON MONOXIDE (CO) HOT SPOT LEVELS

#	INTERSECTION	AM	PM
1	I-10 Fwy. SB Ramps / Oak Valley Pkwy.	5.70	7.50
2	I-10 Fwy. NB Ramps / 14th St.	6.40	7.30
3	Portero Blvd. / Oak Valley Pkwy.	5.30	6.00

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TABLE 3-7

GENERAL PLAN BUILDOUT
CONDITIONS CARBON MONOXIDE (CO) HOT SPOT LEVELS

#	INTERSECTION	AM	PM
1	7th St. / Sandalwood Dr.	5.40	5.40
2	I-10 Fwy. SB Ramps / Oak Valley Pkwy.	6.70	7.40
3	Portero Blvd. / Oak Valley Pkwy.	6.40	6.60
4	"J" Street / Oak Valley Pkwy.	6.80	7.00

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4.0 FINDINGS AND CONCLUSIONS

Operational emissions for mobile and stationary sources exceed the thresholds set forth by the SCAQMD. Developer supported recommended mitigation measures to help reduce operational air quality impacts for mobile and stationary sources include:

- Construct, contribute or dedicate land for the provision of on-site bicycle trails linking the facility to designated bicycle commuting routes.

- Provide site improvements such as street lighting, street furniture, route signs, bus turnouts, and sidewalks or pedestrian paths.

- Build homes that exceed minimum statewide energy construction requirements, such as:
  - Use of low emission water heaters
  - Use of energy efficient appliances
  - Use of light colored/earth tone roof tiles
  - Increase insulation beyond Title 24 requirements

Possible Additional Mitigation:

- Provide park and ride lots:
  - Development of approximately 50-60 spaces within the residential component of the project.
  - Development of approximately 100 parking spaces within the commercial component of the project.

- According to *Ride Guide* provided by the RTA (Riverside Transit Agency) bus route 36 serves the project area of Summerwind Ranch, it is assumed that this bus route will serve the Summerwind Ranch community.

Even with these measures, the daily trip elimination/diversion or the level of on-site stationary source emissions can not be reduced by more than fifteen percent (15%) of the

values shown in Table 3-3 (previously presented). Because the levels of ozone-forming emissions (ROC, NOx) and particulate matter (PM-10) exceed the significance thresholds by hundreds of percent, a 15 percent reduction from developer promoted mitigation would not alter any conclusions about operational activity impact significance. The Summerwind Ranch development will have a significant air quality impact. A statement of overriding considerations is necessary in the preparation of findings.

For short-term construction activity, the implementation of recommended mitigation measures has the potential to reduce the number of days of potentially significant air quality impacts. However, even with the following mitigation measures, short-term construction impacts can not be maintained at less than significant levels.

Recommended mitigation measures for construction activity include:

Applicable Rule 403 Measures:

- Water active sites as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction (locations where grading is to occur will be thoroughly watered prior to earthmoving).
- Water/stabilize soil prior to, during and following cut and fill activities.
- A minimum soil moisture content of 12 percent must be maintained during earth-moving activities per the ASTM method D-2216.
- All trucks hauling dirt, sand, soil or other loose materials are to be covered, or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.
- Pave construction access roads at least 100 feet onto the site from main road.
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less. Water roads every two hours of active operations, and/or apply a chemical stabilizer to all unpaved surfaces.

Additional SCAQMD CEQA Air Quality Handbook Dust Measures:

- Revegetate disturbed areas as quickly as possible.
- All streets shall be swept once a day if visible soil materials are carried to adjacent streets.

Mitigation Measures for Construction Equipment and Vehicles Exhaust Emissions:

- Use of construction equipment with low emission factors and high energy efficiency where possible.
- Perform regularly scheduled engine maintenance to minimize equipment emissions.
- Use of alternative fuels such as ultra-low sulfur diesel or off-road construction vehicles/equipment where possible.
- Use of electric or diesel powered equipment rather than gasoline powered engines where feasible.

Mitigation for VOC Emissions:

- Limiting the application of architectural coatings (i.e., paint, etc.) to average no more than 225 gallons per week and/or use "Zero-VOC" paint. (Appendix G contains a list of Zero-VOC architectural coatings manufacturers.)

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APPENDIX A

URBEMIS COMPUTER MODEL OUTPUT –
CONSTRUCTION IMPACT ANALYSIS

URBEMIS 2002 For Windows 7.5.0

File Name: U:\UcJobs_02300\02346\Urbemis\Construction Impact Analysis.urb
Project Name: SUMMERWIND RANCH CONSTRUCTION ANALYSIS
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

*** 2009 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	284.81	1,894.39	2,302.71	0.01	340.73	76.68	264.05
TOTALS (lbs/day, mitigated)	9.31	306.65	85.88	0.01	65.71	1.42	64.29

*** 2010 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	284.44	1,803.97	2,364.57	0.01	70.23	69.37	0.86
TOTALS (lbs/day, mitigated)	3.91	30.04	50.59	0.01	0.99	0.13	0.86

*** 2011 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	2,194.43	2,030.90	2,727.98	0.04	77.68	75.92	1.76
TOTALS (lbs/day, mitigated)	200.24	148.21	129.78	0.04	2.30	0.54	1.76

URBEMIS 2002 For Windows 7.5.0

File Name: U:\UcJobs_02300\02346\Urbemis\Construction Impact Analysis.urb
Project Name: SUMMERWIND RANCH CONSTRUCTION ANALYSIS
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

*** 2009 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	284.81	1,894.39	2,302.71	0.01	340.73	76.68	264.05
TOTALS (lbs/day, mitigated)	9.31	306.65	85.88	0.01	65.71	1.42	64.29

*** 2010 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	284.44	1,803.97	2,364.57	0.01	70.23	69.37	0.86
TOTALS (lbs/day, mitigated)	3.91	30.04	50.59	0.01	0.99	0.13	0.86

*** 2011 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	2,194.43	2,030.90	2,727.98	0.04	77.68	75.92	1.76
TOTALS (lbs/day, mitigated)	200.24	148.21	129.78	0.04	2.30	0.54	1.76

URBEMIS 2002 For Windows 7.5.0

File Name: U:\UcJobs_02300\02346\Urbemis\Construction Impact Analysis.urb
Project Name: SUMMERWIND RANCH CONSTRUCTION ANALYSIS
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

Construction Start Month and Year: June, 2009
Construction Duration: 24
Total Land Use Area to be Developed: 175 acres
Maximum Acreage Disturbed Per Day: 10 acres
Single Family Units: 450 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 1237200

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	264.00	-	264.00
Off-Road Diesel	86.14	592.63	684.79	-	24.98	24.98	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.70	0.85	17.40	0.01	0.08	0.03	0.05
Maximum lbs/day	86.84	593.48	702.19	0.01	289.06	25.01	264.05
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	280.81	1,892.04	2,252.78	-	76.63	76.63	0.00
Bldg Const Worker Trips	4.00	2.35	49.93	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	284.81	1,894.39	2,302.71	0.01	77.54	76.68	0.86
Max lbs/day all phases	284.81	1,894.39	2,302.71	0.01	340.73	76.68	264.05
*** 2010***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	280.81	1,801.82	2,318.62	-	69.31	69.31	0.00
Bldg Const Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	284.44	1,803.97	2,364.57	0.01	70.23	69.37	0.86
Max lbs/day all phases	284.44	1,803.97	2,364.57	0.01	70.23	69.37	0.86
*** 2011***							

Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	280.81	1,801.82	2,318.62	-	69.31	69.31	0.00
Bldg Const Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	1,866.58	-	-	-	-	-	-
Arch Coatings Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Asphalt Off-Gas	2.17	-	-	-	-	-	-
Asphalt Off-Road Diesel	37.14	218.34	314.50	-	6.36	6.36	0.00
Asphalt On-Road Diesel	0.35	6.36	1.30	0.02	0.15	0.14	0.01
Asphalt Worker Trips	0.13	0.08	1.65	0.00	0.03	0.00	0.03
Maximum lbs/day	2,194.43	2,030.90	2,727.98	0.04	77.68	75.92	1.76
Max lbs/day all phases	2,194.43	2,030.90	2,727.98	0.04	77.68	75.92	1.76

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '09
Phase 2 Duration: 2.6 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
20	Rubber Tired Dozers	352	0.590	8.0
20	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Aug '09
Phase 3 Duration: 21.4 months
Start Month/Year for SubPhase Building: Aug '09
SubPhase Building Duration: 21.4 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
47	Concrete/Industrial saws	84	0.730	8.0
93	Other Equipment	190	0.620	8.0
47	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Mar '11
SubPhase Architectural Coatings Duration: 2.1 months
Start Month/Year for SubPhase Asphalt: Apr '11
SubPhase Asphalt Duration: 1.1 months
Acres to be Paved: 20
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
4	Graders	174	0.575	8.0
4	Off Highway Trucks	417	0.490	8.0
4	Pavers	132	0.590	8.0
4	Paving Equipment	111	0.530	8.0
7	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	64.24	-	64.24
Off-Road Diesel	8.61	305.80	68.48	-	1.39	1.39	0.00

On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.70	0.85	17.40	0.01	0.08	0.03	0.05
Maximum lbs/day	9.31	306.65	85.88	0.01	65.71	1.42	64.29
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.28	29.29	4.51	-	0.09	0.09	0.00
Bldg Const Worker Trips	4.00	2.35	49.93	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	4.29	31.64	54.43	0.01	1.00	0.14	0.86
Max lbs/day all phases	9.31	306.65	85.88	0.01	65.71	1.42	64.29

*** 2010***

Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.28	27.89	4.64	-	0.08	0.08	0.00
Bldg Const Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	3.91	30.04	50.59	0.01	0.99	0.13	0.86
Max lbs/day all phases	3.91	30.04	50.59	0.01	0.99	0.13	0.86

*** 2011***

Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.28	27.89	4.64	-	0.08	0.08	0.00
Bldg Const Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	186.66	-	-	-	-	-	-
Arch Coatings Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Asphalt Off-Gas	2.17	-	-	-	-	-	-
Asphalt Off-Road Diesel	3.71	112.66	31.45	-	0.35	0.35	0.00
Asphalt On-Road Diesel	0.04	3.28	0.13	0.02	0.02	0.01	0.01
Asphalt Worker Trips	0.13	0.08	1.65	0.00	0.03	0.00	0.03
Maximum lbs/day	200.24	148.21	129.78	0.04	2.30	0.54	1.76
Max lbs/day all phases	200.24	148.21	129.78	0.04	2.30	0.54	1.76

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 3.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: Off-Road Diesel Exhaust: Where possible use electricity from power poles and not gasoline or diesel powered gener
Percent Reduction(ROG 99% NOx 97% CO 98% SO2 0.0% PM10 98%)
Phase 3: Offgassing: Follow painting schedule of no more than 225 gallons per week and/or use of Zero VOC Paint
Percent Reduction(ROG 90% NOx 90% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '09
Phase 2 Duration: 2.6 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
20	Rubber Tired Dozers	352	0.590	8.0
20	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Aug '09
Phase 3 Duration: 21.4 months
Start Month/Year for SubPhase Building: Aug '09
SubPhase Building Duration: 21.4 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
47	Concrete/Industrial saws	84	0.730	8.0
93	Other Equipment	190	0.620	8.0
47	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Mar '11
SubPhase Architectural Coatings Duration: 2.1 months
Start Month/Year for SubPhase Asphalt: Apr '11
SubPhase Asphalt Duration: 1.1 months
Acres to be Paved: 20
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
4	Graders	174	0.575	8.0
4	Off Highway Trucks	417	0.490	8.0
4	Pavers	132	0.590	8.0
4	Paving Equipment	111	0.530	8.0
7	Rollers	114	0.430	8.0

URBEMIS 2002 For Windows 7.5.0

File Name: U:\UcJobs_02300\02346\Urbemis\Construction Impact Analysis.urb
Project Name: SUMMERWIND RANCH CONSTRUCTION ANALYSIS
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2009
Construction Duration: 24
Total Land Use Area to be Developed: 175 acres
Maximum Acreage Disturbed Per Day: 10 acres
Single Family Units: 450 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 1237200

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	264.00	-	264.00
Off-Road Diesel	86.14	592.63	684.79	-	24.98	24.98	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.70	0.85	17.40	0.01	0.08	0.03	0.05
Maximum lbs/day	86.84	593.48	702.19	0.01	289.06	25.01	264.05
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	280.81	1,892.04	2,252.78	-	76.63	76.63	0.00
Bldg Const Worker Trips	4.00	2.35	49.93	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	284.81	1,894.39	2,302.71	0.01	77.54	76.68	0.86
Max lbs/day all phases	284.81	1,894.39	2,302.71	0.01	340.73	76.68	264.05
*** 2010***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	280.81	1,801.82	2,318.62	-	69.31	69.31	0.00
Bldg Const Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	284.44	1,803.97	2,364.57	0.01	70.23	69.37	0.86
Max lbs/day all phases	284.44	1,803.97	2,364.57	0.01	70.23	69.37	0.86

*** 2011***

Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	280.81	1,801.82	2,318.62	-	69.31	69.31	0.00
Bldg Const Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	1,866.58	-	-	-	-	-	-
Arch Coatings Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Asphalt Off-Gas	2.17	-	-	-	-	-	-
Asphalt Off-Road Diesel	37.14	218.34	314.50	-	6.36	6.36	0.00
Asphalt On-Road Diesel	0.35	6.36	1.30	0.02	0.15	0.14	0.01
Asphalt Worker Trips	0.13	0.08	1.65	0.00	0.03	0.00	0.03
Maximum lbs/day	2,194.43	2,030.90	2,727.98	0.04	77.68	75.92	1.76
Max lbs/day all phases	2,194.43	2,030.90	2,727.98	0.04	77.68	75.92	1.76

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '09
Phase 2 Duration: 2.6 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
20	Rubber Tired Dozers	352	0.590	8.0
20	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Aug '09
Phase 3 Duration: 21.4 months
Start Month/Year for SubPhase Building: Aug '09
SubPhase Building Duration: 21.4 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
47	Concrete/Industrial saws	84	0.730	8.0
93	Other Equipment	190	0.620	8.0
47	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Mar '11
SubPhase Architectural Coatings Duration: 2.1 months
Start Month/Year for SubPhase Asphalt: Apr '11
SubPhase Asphalt Duration: 1.1 months
Acres to be Paved: 20
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
4	Graders	174	0.575	8.0
4	Off Highway Trucks	417	0.490	8.0
4	Pavers	132	0.590	8.0
4	Paving Equipment	111	0.530	8.0
7	Rollers	114	0.430	8.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	64.24	-	64.24
Off-Road Diesel	8.61	305.80	68.48	-	1.39	1.39	0.00

On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.70	0.85	17.40	0.01	0.08	0.03	0.05
Maximum lbs/day	9.31	306.65	85.88	0.01	65.71	1.42	64.29
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.28	29.29	4.51	-	0.09	0.09	0.00
Bldg Const Worker Trips	4.00	2.35	49.93	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	4.29	31.64	54.43	0.01	1.00	0.14	0.86
Max lbs/day all phases	9.31	306.65	85.88	0.01	65.71	1.42	64.29

*** 2010***

Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.28	27.89	4.64	-	0.08	0.08	0.00
Bldg Const Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	3.91	30.04	50.59	0.01	0.99	0.13	0.86
Max lbs/day all phases	3.91	30.04	50.59	0.01	0.99	0.13	0.86

*** 2011***

Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.28	27.89	4.64	-	0.08	0.08	0.00
Bldg Const Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Arch Coatings Off-Gas	186.66	-	-	-	-	-	-
Arch Coatings Worker Trips	3.63	2.15	45.96	0.01	0.91	0.05	0.86
Asphalt Off-Gas	2.17	-	-	-	-	-	-
Asphalt Off-Road Diesel	3.71	112.66	31.45	-	0.35	0.35	0.00
Asphalt On-Road Diesel	0.04	3.28	0.13	0.02	0.02	0.01	0.01
Asphalt Worker Trips	0.13	0.08	1.65	0.00	0.03	0.00	0.03
Maximum lbs/day	200.24	148.21	129.78	0.04	2.30	0.54	1.76
Max lbs/day all phases	200.24	148.21	129.78	0.04	2.30	0.54	1.76

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 2: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 2: On-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 3.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: Off-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: Off-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: On-Road Diesel Exhaust: Use aqueous diesel fuel
Percent Reduction(ROG 0.0% NOx 14.0% CO 0.0% SO2 0.0% PM10 63.0%)
Phase 3: On-Road Diesel Exhaust: Use cooled exhaust gas recirculation(EGR)
Percent Reduction(ROG 90.0% NOx 40.0% CO 90.0% SO2 0.0% PM10 85.0%)
Phase 3: Off-Road Diesel Exhaust: Where possible use electricity from power poles and not gasoline or diesel powered gene
Percent Reduction(ROG 99% NOx 97% CO 98% SO2 0.0% PM10 98%)
Phase 3: Offgassing: Follow painting schedule of no more than 225 gallons per week and/or use of Zero VOC Paint
Percent Reduction(ROG 90% NOx 90% CO 0.0% SO2 0.0% PM10 0.0%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '09
Phase 2 Duration: 2.6 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
20	Rubber Tired Dozers	352	0.590	8.0
20	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Aug '09
Phase 3 Duration: 21.4 months
Start Month/Year for SubPhase Building: Aug '09
SubPhase Building Duration: 21.4 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
47	Concrete/Industrial saws	84	0.730	8.0
93	Other Equipment	190	0.620	8.0
47	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Mar '11
SubPhase Architectural Coatings Duration: 2.1 months
Start Month/Year for SubPhase Asphalt: Apr '11
SubPhase Asphalt Duration: 1.1 months
Acres to be Paved: 20
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
4	Graders	174	0.575	8.0
4	Off Highway Trucks	417	0.490	8.0
4	Pavers	132	0.590	8.0
4	Paving Equipment	111	0.530	8.0
7	Rollers	114	0.430	8.0

APPENDIX B

URBEMIS COMPUTER MODEL OUTPUT –
OPERATIONAL IMPACT ANALYSIS

URBEMIS 2002 For Windows 7.5.0

File Name: U:\UcJobs_02300\02346\Urbemis\Operational Impact Analysis.urb
Project Name: SUMMER WIND RANCH OAK VALLEY
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	186.29	62.01	40.77	0.48	0.13
TOTALS (lbs/day, mitigated)	185.74	55.39	37.94	0.48	0.12

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	202.36	135.26	1,951.35	5.65	806.01
TOTALS (lbs/day, mitigated)	179.43	114.21	1,648.89	4.77	679.29

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	388.64	197.28	1,992.12	6.13	806.14
TOTALS (lbs/day, mitigated)	365.17	169.61	1,686.84	5.24	679.41

URBEMIS 2002 For Windows 7.5.0

File Name: U:\UcJobs_02300\02346\Urbemis\Operational Impact Analysis.urb
Project Name: SUMMER WIND RANCH OAK VALLEY
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	184.84	61.66	25.68	0.00	0.12
TOTALS (lbs/day, mitigated)	184.30	55.03	22.85	0.00	0.10

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	160.09	182.16	1,552.69	4.57	806.01
TOTALS (lbs/day, mitigated)	136.84	153.76	1,313.08	3.85	679.29

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	344.94	243.82	1,578.37	4.57	806.13
TOTALS (lbs/day, mitigated)	321.14	208.80	1,335.93	3.85	679.39

URBEMIS 2002 For Windows 7.5.0

File Name: U:\UcJobs_02300\02346\Urbemis\Operational Impact Analysis.urb
Project Name: SUMMER WIND RANCH OAK VALLEY
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	4.66	61.66	25.68	-	0.12
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	180.18	-	-	-	-
TOTALS(lbs/day,unmitigated)	184.84	61.66	25.68	0.00	0.12

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	4.12	55.03	22.85	-	0.10
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	180.18	-	-	-	-
TOTALS (lbs/day, mitigated)	184.30	55.03	22.85	0.00	0.10

Area Source Mitigation Measures

Increase Insulation Beyond Title 24: Rsdntl Space Heat.
Percent Reduction(ROG 14% NOx 13% CO 7.4% SO2 0% PM10 13%)
Low emission water heater: Rsdntl Water Heat.
Percent Reduction(ROG 11% NOx 9.5% CO 4.5% SO2 0% PM10 10%)
Built in energy efficient appliances: Rsdntl Space Heat.
Percent Reduction(ROG 3% NOx 3% CO 6.5% SO2 0% PM10 3%)
Light colored roofing materials: Rsdntl Space Heat.
Percent Reduction(ROG 1.5% NOx 1.5% CO 1.5% SO2 0% PM10 1.5%)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	43.17	50.78	436.35	1.31	230.37
Multi-Family Attached	16.90	19.50	167.55	0.50	88.46
Elementary school	2.92	2.47	20.61	0.06	11.24
Middle School	4.16	4.07	33.92	0.10	18.50
Strip mall	61.01	69.75	586.84	1.68	297.89
Office park	31.93	35.59	307.42	0.91	159.54
TOTAL EMISSIONS (lbs/day)	160.09	182.16	1,552.69	4.57	806.01

Includes correction for passby trips.
Includes a double counting reduction for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	2,381.00	22,786.17
Multi-Family Attached	6.72 trips / dwelling units	1,302.00	8,749.44
Elementary school	0.96 trips / students	1,200.00	1,152.00
Middle School	1.58 trips / students	1,200.00	1,896.00
Strip mall	43.92 trips / 1000 sq. ft.	1,000.00	43,918.67
Office park	10.68 trips / 1000 sq. ft.	1,579.00	16,863.72

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00
Light Truck 3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	33.30	66.70	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	15.0	3.0	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	15.0	3.0	6.0	10.3	5.5	5.5
Trip Speeds (mph)	40.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
Middle School				20.0	10.0	70.0
Strip mall				2.0	1.0	97.0
Office park				48.0	24.0	28.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	38.21	44.51	382.95	1.14	201.38
Multi-Family Attached	14.95	16.97	146.14	0.44	76.66
Elementary school	2.53	1.86	15.70	0.05	8.27
Middle School	3.57	3.20	26.86	0.08	14.35
Strip mall	49.99	56.84	478.54	1.37	242.57
Office park	27.57	30.39	262.90	0.78	136.05
TOTAL EMISSIONS (lbs/day)	136.84	153.76	1,313.08	3.85	679.29

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	2,381.00	22,786.17
Multi-Family Attached	6.72 trips / dwelling units	1,302.00	8,749.44
Elementary school	0.96 trips / students	1,200.00	1,152.00
Middle School	1.58 trips / students	1,200.00	1,896.00
Strip mall	43.92 trips / 1000 sq. ft.	1,000.00	43,918.67
Office park	10.68 trips / 1000 sq. ft.	1,579.00	16,863.72

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00
Light Truck 3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	33.30	66.70	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	15.0	3.0	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	15.0	3.0	6.0	10.3	5.5	5.5
Trip Speeds (mph)	40.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
Middle School				20.0	10.0	70.0
Strip mall				2.0	1.0	97.0
Office park				48.0	24.0	28.0

ENVIRONMENTAL FACTORS APPLICABLE TO THE PROJECT

Pedestrian Environment

```
 3.0            Side Walks/Paths: Complete Coverage
 0.5            Street Trees Provide Shade: Some Coverage
 3.0            Pedestrian Circulation Access: Most Destinations
 5.0            Visually Interesting Uses: Large Number and Variety
 2.0            Street System Enhances Safety: Most Streets
 2.0            Pedestrian Safety from Crime: High Degree of Safety
 2.0            Visually Interesting Walking Routes: High Level

17.5    <- Pedestrian Environmental Credit
17.5   /19 =  0.9    <- Pedestrian Effectiveness Factor
```

Transit Service

```
20.0            Transit Service: 15-30 Minute Bus within 1/4 Mile

20.0    <- Transit Effectiveness Credit
17.5    <- Pedestrian Factor
37.5    <-Total
37.5    /110 =  0.3     <-Transit Effectiveness Factor
```

Bicycle Environment

```
 3.0            Interconnected Bikeways: Moderate Coverage
 2.0            Bike Routes Provide Paved Shoulders: Some Routes
 1.0            Safe Vehicle Speed Limits: Some Destinations
 2.0            Safe School Routes: Primary and Secondary Schools
 3.0            Uses w/in Cycling Distance: Large Number and Variety
 0.0            Bike Parking Ordinance: No Ordinance or Unenforceable

11.0    <- Bike Environmental Credit
11.0  /20 =  0.6    <- Bike Effectiveness Factor
```

MITIGATION MEASURES SELECTED FOR THIS PROJECT
(All mitigation measures are printed, even if
the selected land uses do not constitute a mixed use.)

Transit Infrastructure Measures

% Trips Reduced	Measure
15.0	Credit for Existing or Planned Community Transit Service
6.0	Project Density Meets Transit Level of Service Requirements
2.0	Provide Transit Shelters Benches
0.5	Provide Street Lighting
0.5	Provide Route Signs and Displays
1.0	Provide Bus Turnouts
25.0 <- Totals	

Pedestrian Enhancing Infrastructure Measures (Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
3.0	Mixed Use Project (Residential Oriented)
1.0	Provide Sidewalks and/or Pedestrian Paths
1.0	Provide Direct Pedestrian Connections
0.5	Provide Pedestrian Safety
0.5	Provide Street Furniture
8.0 <- Totals	

Pedestrian Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
1.0	Mixed Use Project (Commercial Oriented)
1.0	Provide Wide Sidewalks and Onsite Pedestrian Facilities
1.0	Project Uses Parking Structures/Small Dispersed Lots
0.5	Provide Street Lighting
0.5	Project Provides Shade Trees to Shade Sidewalks
6.0 <- Totals	

Bicycle Enhancing Infratructure Measures (Residential)

% Trips Reduced	Measure
7.0	Credit for Surrounding Bicycle Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
9.0 <- Totals	

Bike Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
5.0	Credit for Surrounding Area Bike Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
1.0	Provide Securre Bicycle Parking
8.0 <- Totals	

Operational Measures (Applying to Commute Trips)

% Trips Reduced	Measure
0.0 <- Totals	

Operational Measures (Applying to Employee Non-Commute Trips)

% Trips Reduced	Measure
5.0	Many Frequently Needed Services Provided
5.0 <- Totals	

Operational Measures (Applying to Customer Trips)

% Trips Reduced	Measure
0.0 <- Totals	

Measures Reducing VMT (Non-Residential)

VMT Reduced	Measure
916.7	Park and Ride Lots
916.7 <- Totals	

Measures Reducing VMT (Residential)

VMT Reduced	Measure
801.0	Park and Ride Lots
801.0 <- Totals	

Total Percentage Trip Reduction
with Environmental Factors and Mitigation Measures

Travel Mode	Home-Work Trips	Home-Shop Trips	Home-Other Trips
Pedestrian	0.81	3.24	3.24
Transit	8.52	1.88	2.30
Bicycle	4.95	4.95	4.95
Totals	0.00	0.00	0.00

Travel Mode	Work Trips	Employee Trips	Customer Trips
Pedestrian	0.61	5.53	5.53
Transit	8.52	0.17	8.52
Bicycle	4.40	4.40	4.40
Other	0.00	0.37	0.00
Totals	0.00	0.00	0.00

URBEMIS 2002 For Windows 7.5.0

File Name: U:\UcJobs_02300\02346\Urbemis\Operational Impact Analysis.urb
Project Name: SUMMER WIND RANCH OAK VALLEY
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	4.66	61.66	25.68	-	0.12
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	1.44	0.36	15.09	0.48	0.01
Consumer Prdcts	180.18	-	-	-	-
TOTALS(lbs/day,unmitigated)	186.29	62.01	40.77	0.48	0.13

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	4.12	55.03	22.85	-	0.10
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	1.44	0.36	15.09	0.48	0.01
Consumer Prdcts	180.18	-	-	-	-
TOTALS (lbs/day, mitigated)	185.74	55.39	37.94	0.48	0.12

Area Source Mitigation Measures

Low emission water heater: Rsdntl Water Heat.
Percent Reduction(ROG 11% NOx 9.5% CO 4.5% SO2 0% PM10 10%)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	54.30	37.52	555.00	1.62	230.37
Multi-Family Attached	23.18	14.41	213.11	0.62	88.46
Elementary school	9.12	1.83	26.31	0.08	11.24
Middle School	10.35	3.01	43.31	0.13	18.50
Strip mall	66.35	52.14	721.91	2.08	297.89
Office park	39.07	26.37	391.72	1.12	159.54
TOTAL EMISSIONS (lbs/day)	202.36	135.26	1,951.35	5.65	806.01

Includes correction for passby trips.
Includes a double counting reduction for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 95 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	2,381.00	22,786.17
Multi-Family Attached	6.72 trips / dwelling units	1,302.00	8,749.44
Elementary school	0.96 trips / students	1,200.00	1,152.00
Middle School	1.58 trips / students	1,200.00	1,896.00
Strip mall	43.92 trips / 1000 sq. ft.	1,000.00	43,918.67
Office park	10.68 trips / 1000 sq. ft.	1,579.00	16,863.72

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00
Light Truck 3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	33.30	66.70	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	15.0	3.0	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	15.0	3.0	6.0	10.3	5.5	5.5
Trip Speeds (mph)	40.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
Middle School				20.0	10.0	70.0
Strip mall				2.0	1.0	97.0
Office park				48.0	24.0	28.0

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	49.51	32.90	486.30	1.41	201.38
Multi-Family Attached	21.30	12.55	185.44	0.54	76.66
Elementary school	8.73	1.38	19.82	0.06	8.27
Middle School	9.76	2.37	34.07	0.10	14.35
Strip mall	55.28	42.50	588.45	1.69	242.57
Office park	34.84	22.52	334.81	0.96	136.05
TOTAL EMISSIONS (lbs/day)	179.43	114.21	1,648.89	4.77	679.29

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2030 Temperature (F): 95 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	2,381.00	22,786.17
Multi-Family Attached	6.72 trips / dwelling units	1,302.00	8,749.44
Elementary school	0.96 trips / students	1,200.00	1,152.00
Middle School	1.58 trips / students	1,200.00	1,896.00
Strip mall	43.92 trips / 1000 sq. ft.	1,000.00	43,918.67
Office park	10.68 trips / 1000 sq. ft.	1,579.00	16,863.72

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.50	0.00	100.00	0.00
Light Truck < 3,750 lbs	15.90	0.00	100.00	0.00
Light Truck 3,751- 5,750	16.70	0.00	100.00	0.00
Med Truck 5,751- 8,500	7.60	0.00	100.00	0.00
Lite-Heavy 8,501-10,000	1.00	0.00	80.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.90	0.00	22.20	77.80
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.50	33.30	66.70	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	2.60	0.00	92.30	7.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	15.0	3.0	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	15.0	3.0	6.0	10.3	5.5	5.5
Trip Speeds (mph)	40.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
Middle School				20.0	10.0	70.0
Strip mall				2.0	1.0	97.0
Office park				48.0	24.0	28.0

ENVIRONMENTAL FACTORS APPLICABLE TO THE PROJECT

Pedestrian Environment

```
 3.0            Side Walks/Paths: Complete Coverage
 0.5            Street Trees Provide Shade: Some Coverage
 3.0            Pedestrian Circulation Access: Most Destinations
 5.0            Visually Interesting Uses: Large Number and Variety
 2.0            Street System Enhances Safety: Most Streets
 2.0            Pedestrian Safety from Crime: High Degree of Safety
 2.0            Visually Interesting Walking Routes: High Level

17.5    <- Pedestrian Environmental Credit
17.5   /19 =  0.9    <- Pedestrian Effectiveness Factor
```

Transit Service

```
20.0            Transit Service: 15-30 Minute Bus within 1/4 Mile

20.0    <- Transit Effectiveness Credit
17.5    <- Pedestrian Factor
37.5    <-Total
37.5    /110 =  0.3     <-Transit Effectiveness Factor
```

Bicycle Environment

```
 3.0            Interconnected Bikeways: Moderate Coverage
 2.0            Bike Routes Provide Paved Shoulders: Some Routes
 1.0            Safe Vehicle Speed Limits: Some Destinations
 2.0            Safe School Routes: Primary and Secondary Schools
 3.0            Uses w/in Cycling Distance: Large Number and Variety
 0.0            Bike Parking Ordinance: No Ordinance or Unenforceable

11.0    <- Bike Environmental Credit
11.0  /20 =  0.6    <- Bike Effectiveness Factor
```

MITIGATION MEASURES SELECTED FOR THIS PROJECT
(All mitigation measures are printed, even if
the selected land uses do not constitute a mixed use.)

Transit Infrastructure Measures

% Trips Reduced	Measure
15.0	Credit for Existing or Planned Community Transit Service
6.0	Project Density Meets Transit Level of Service Requirements
2.0	Provide Transit Shelters Benches
0.5	Provide Street Lighting
0.5	Provide Route Signs and Displays
1.0	Provide Bus Turnouts
25.0	<- Totals

Pedestrian Enhancing Infrastructure Measures (Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
3.0	Mixed Use Project (Residential Oriented)
1.0	Provide Sidewalks and/or Pedestrian Paths
1.0	Provide Direct Pedestrian Connections
0.5	Provide Pedestrian Safety
0.5	Provide Street Furniture
8.0	<- Totals

Pedestrian Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
2.0	Credit for Surrounding Pedestrian Environment
1.0	Mixed Use Project (Commercial Oriented)
1.0	Provide Wide Sidewalks and Onsite Pedestrian Facilities
1.0	Project Uses Parking Structures/Small Dispersed Lots
0.5	Provide Street Lighting
0.5	Project Provides Shade Trees to Shade Sidewalks
6.0	<- Totals

Bicycle Enhancing Infratructure Measures (Residential)

% Trips Reduced	Measure
7.0	Credit for Surrounding Bicycle Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
9.0	<- Totals

Bike Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
5.0	Credit for Surrounding Area Bike Environment
2.0	Provide Bike Lanes/Paths Connecting to Bikeway System
1.0	Provide Securre Bicycle Parking
8.0	<- Totals

Operational Measures (Applying to Commute Trips)

% Trips Reduced	Measure
0.0	<- Totals

Operational Measures (Applying to Employee Non-Commute Trips)

% Trips Reduced	Measure
5.0	Many Frequently Needed Services Provided
5.0	<- Totals

Operational Measures (Applying to Customer Trips)

% Trips Reduced	Measure
0.0	<- Totals

Measures Reducing VMT (Non-Residential)

VMT Reduced	Measure
916.7	Park and Ride Lots
916.7	<- Totals

Measures Reducing VMT (Residential)

VMT Reduced	Measure
801.0	Park and Ride Lots
801.0	<- Totals

Total Percentage Trip Reduction
with Environmental Factors and Mitigation Measures

Travel Mode	Home-Work Trips	Home-Shop Trips	Home-Other Trips
Pedestrian	0.81	3.24	3.24
Transit	8.52	1.88	2.30
Bicycle	4.95	4.95	4.95
Totals	0.00	0.00	0.00

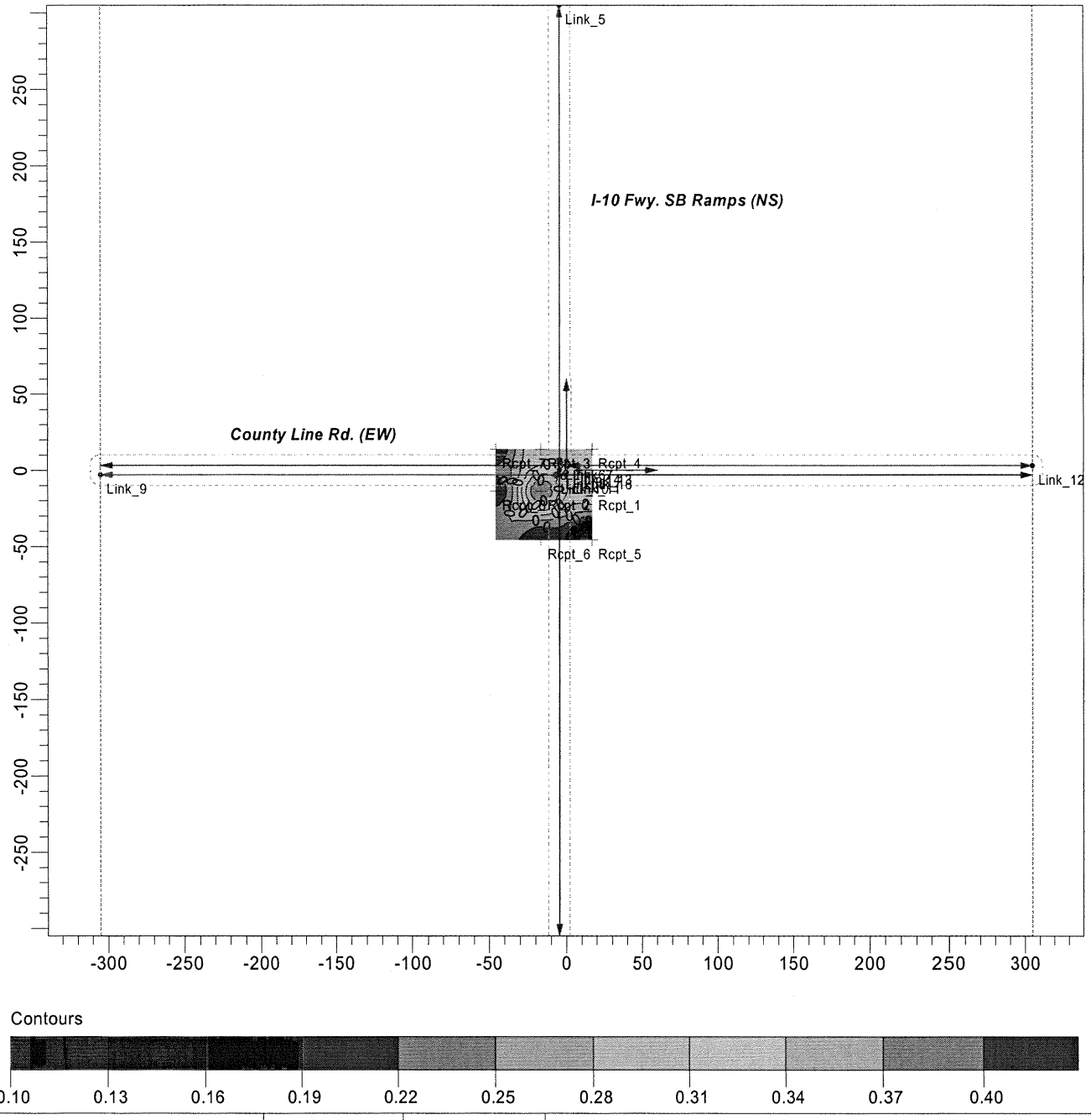
Travel Mode	Work Trips	Employee Trips	Customer Trips
Pedestrian	0.61	5.53	5.53
Transit	8.52	0.17	8.52
Bicycle	4.40	4.40	4.40
Other	0.00	0.37	0.00
Totals	0.00	0.00	0.00

APPENDIX C

EXISTING CONDITIONS
CAL3QHC CO HOTSPOT OUTPUT

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT EXISTING CONDITIONS AM PEAK HOUR
I-10 Fwy. SB Ramps (NS). and County Line Rd. (EW)



Contours

0.10 0.13 0.16 0.19 0.22 0.25 0.28 0.31 0.34 0.37 0.40

COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 4.50PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
	MAX: **0.40**	UNITS: **ppm**	MODELER: **H.Q.**	
	LINKS: **11**	RECEPTORS: **8**	0 100 m	URBAN CROSSROADS
			DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

CALRoads View - Lakes Environmental Software C:\Documents and Settings\hqureshi\Desktop\CALROADS 2346\Existing Conditions\AM\I-10 SB _County Line Rd\AM.clv

JOB: I-10 FwySB Ramps/County Line Rd. AM EX RUN: I-10 FwySB Ramps/County Line Rd. AM EX

DATE : 10/18/ 4
TIME : 13:10:17

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
LENGTH BRG TYPE VPH EF	H W	V/C QUEUE				
	*	X1	Y1	X2	Y2	*
(M) (DEG) (G/MI)	(M) (M)	(VEH)				
1. SB Appr.	*	-4.7	305.0	-4.7	0.0	*
305. 180. AG 286. 9.4	0.0 14.0					
2. SB Queue	*	-4.7	6.2	-4.7	6.5	*
0. 360. AG 0. 100.0	0.0 14.0	0.01	0.0			
3. SB Q.Left	*	0.0	6.2	0.0	16.9	*
11. 360. AG 0. 100.0	0.0 6.0	0.30	1.8			
4. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 211. 9.4	0.0 14.0					
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 63. 9.4	0.0 14.0					
6. EB Queue	*	-7.8	-3.1	-10.2	-3.1	*
2. 270. AG 0. 100.0	0.0 14.0	0.07	0.4			
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 340. 9.4	0.0 14.0					
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 244. 9.4	0.0 14.0					
9. WB Queue	*	7.8	3.1	9.1	3.1	*
1. 90. AG 0. 100.0	0.0 14.0	0.04	0.2			
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 42. 9.4	0.0 14.0					
11. WB Turn Q.	*	7.8	0.0	15.8	0.0	*
8. 90. AG 0. 100.0	0.0 6.0	0.22	1.3			

DATE : 10/18/ 4
TIME : 13:10:17

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. SB Queue	*	60	23	0.0	7	1600	0.40	2	1
3. SB Q.Left	*	60	23	0.0	279	1600	0.40	2	1
6. EB Queue	*	60	23	0.0	63	1600	0.40	2	1
9. WB Queue	*	60	22	0.0	35	1600	0.40	2	1
11. WB Turn Q.	*	60	23	0.0	209	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

JOB: I-10 FwySB Ramps/County Line Rd. AM EX RUN: I-10 FwySB Ramps/County Line Rd. AM EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0
5.	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0
10.	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0
15.	0.2	0.1	0.1	0.0	0.0	0.2	0.0	0.1
20.	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1
25.	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0
30.	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0
35.	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0
40.	0.2	0.0	0.1	0.0	0.0	0.1	0.0	0.0
45.	0.2	0.0	0.1	0.0	0.0	0.1	0.0	0.0
50.	0.2	0.0	0.1	0.0	0.0	0.1	0.0	0.0
55.	0.2	0.0	0.1	0.0	0.1	0.2	0.0	0.0
60.	0.2	0.3	0.1	0.0	0.1	0.2	0.0	0.0
65.	0.2	0.3	0.1	0.0	0.1	0.2	0.0	0.0
70.	0.3	0.3	0.1	0.0	0.1	0.2	0.0	0.0
75.	0.3	0.3	0.1	0.0	0.1	0.2	0.0	0.2
80.	0.3	0.4	0.1	0.0	0.0	0.1	0.0	0.2
85.	0.3	0.3	0.1	0.0	0.0	0.1	0.0	0.2
90.	0.1	0.2	0.3	0.2	0.0	0.1	0.2	0.1
95.	0.1	0.2	0.3	0.2	0.0	0.1	0.2	0.1
100.	0.0	0.1	0.3	0.2	0.0	0.1	0.2	0.0
105.	0.0	0.1	0.3	0.2	0.0	0.1	0.1	0.0
110.	0.0	0.1	0.3	0.2	0.0	0.1	0.1	0.0
115.	0.0	0.1	0.3	0.2	0.0	0.1	0.0	0.0
120.	0.0	0.1	0.2	0.2	0.0	0.1	0.0	0.0
125.	0.0	0.1	0.2	0.2	0.0	0.1	0.0	0.0
130.	0.0	0.1	0.2	0.2	0.0	0.1	0.0	0.0
135.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
140.	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.0
145.	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.0
150.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
155.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
160.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
165.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
170.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
175.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
180.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
185.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
190.	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0
195.	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0
200.	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0
205.	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0

JOB: I-10 FwySB Ramps/County Line Rd. AM EX RUN: I-10 FwySB Ramps/County Line Rd. AM EX

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0
215.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
220.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
225.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
230.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
235.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
240.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
245.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
250.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
265.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
270.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
275.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
280.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
285.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
290.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
295.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
300.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
305.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
310.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
315.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
320.	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
325.	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
330.	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
335.	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
340.	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0
345.	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0
350.	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0
355.	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0
360.	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0
MAX	0.3	0.4	0.3	0.3	0.1	0.2	0.2	0.2
DEGR.	70	80	90	190	55	15	90	75

THE HIGHEST CONCENTRATION OF 0.40 PPM OCCURRED AT RECEPTOR REC2 .

JOB: I-10 FwySB Ramps/County Line Rd. AM EX RUN: I-10 FwySB Ramps/County Line Rd. AM EX

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
243.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
246.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
249.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
252.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
255.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
258.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
261.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
264.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
267.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
270.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
273.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
276.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
279.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
282.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
285.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
288.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
291.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
294.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
297.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300.	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEGR.	294	240	240	240	240	240	240	240

THE HIGHEST CONCENTRATION OF 0.10 PPM OCCURRED AT RECEPTOR REC1 .

JOB: I-10 FwySB Ramps/County Line Rd. AM EX RUN: I-10 FwySB Ramps/County Line Rd. AM EX

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

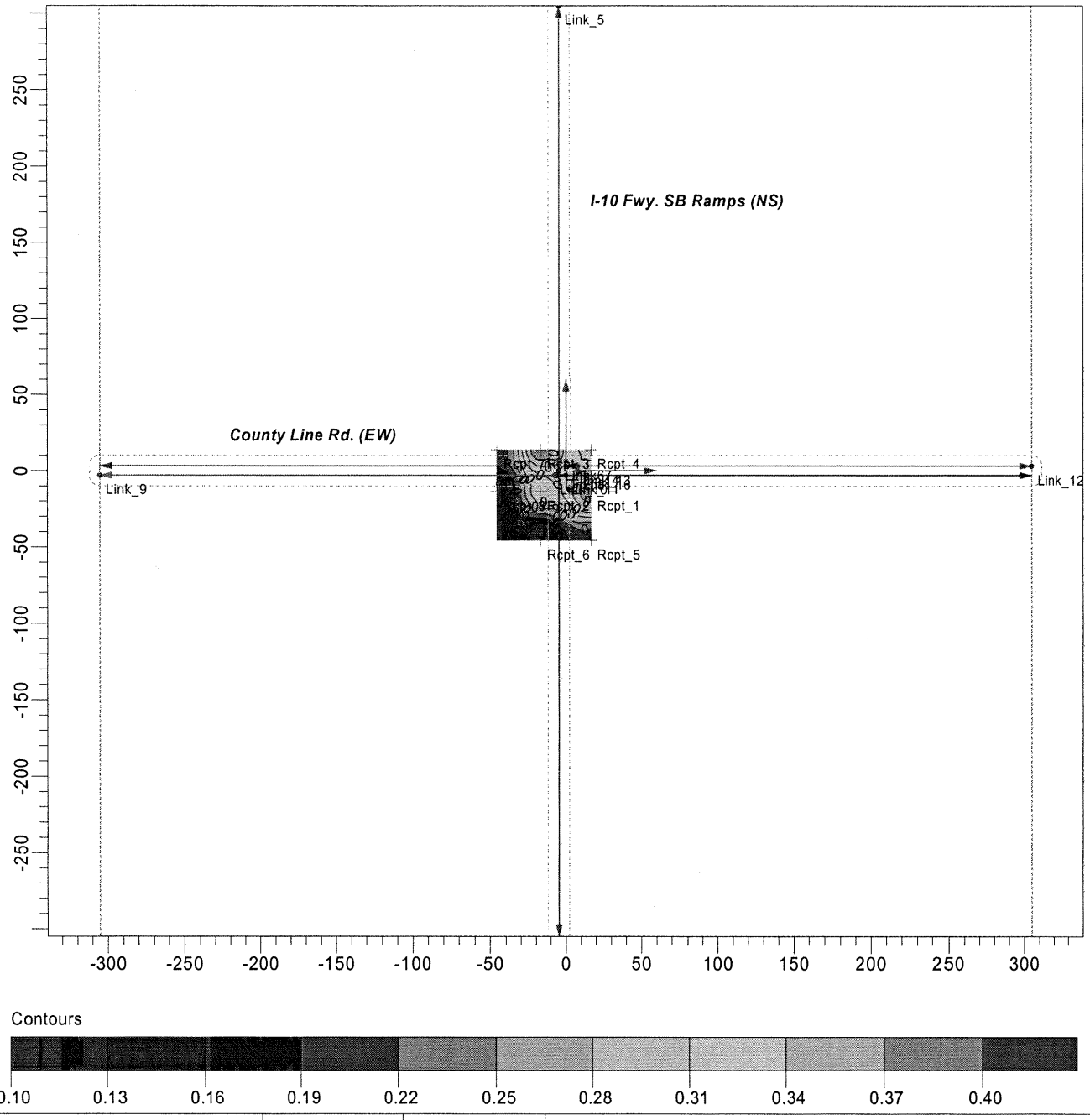
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	4.2	4.1	4.1	4.0	4.2	4.1	4.0	4.0
10.	4.2	4.2	4.2	4.0	4.1	4.1	4.1	4.1
20.	4.2	4.1	4.1	4.0	4.0	4.1	4.1	4.1
30.	4.2	4.1	4.1	4.0	4.1	4.1	4.1	4.1
40.	4.2	4.0	4.1	4.0	4.1	4.2	4.1	4.1
50.	4.2	4.1	4.1	4.0	4.1	4.2	4.1	4.1
60.	4.2	4.3	4.1	4.0	4.1	4.2	4.0	4.0
70.	4.3	4.3	4.1	4.0	4.2	4.3	4.0	4.1
80.	4.3	4.4	4.1	4.0	4.1	4.2	4.0	4.3
90.	4.3	4.4	4.3	4.2	4.0	4.1	4.2	4.2
100.	4.0	4.1	4.5	4.4	4.0	4.1	4.3	4.0
110.	4.0	4.1	4.3	4.2	4.0	4.1	4.1	4.0
120.	4.0	4.1	4.3	4.2	4.0	4.1	4.0	4.0
130.	4.0	4.1	4.2	4.2	4.0	4.1	4.0	4.0
140.	4.0	4.1	4.1	4.2	4.0	4.1	4.0	4.0
150.	4.0	4.1	4.1	4.2	4.0	4.1	4.0	4.0
160.	4.0	4.1	4.1	4.2	4.0	4.1	4.1	4.1
170.	4.0	4.1	4.1	4.2	4.0	4.1	4.1	4.0
180.	4.0	4.1	4.1	4.2	4.0	4.1	4.0	4.0
190.	4.1	4.0	4.0	4.3	4.1	4.0	4.0	4.0
200.	4.1	4.0	4.0	4.3	4.1	4.0	4.0	4.0
210.	4.1	4.0	4.0	4.3	4.1	4.0	4.0	4.0
220.	4.1	4.0	4.0	4.3	4.1	4.0	4.0	4.0
230.	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
240.	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
250.	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
260.	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
270.	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
280.	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
290.	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
300.	4.1	4.0	4.0	4.1	4.0	4.0	4.0	4.0
310.	4.1	4.0	4.0	4.1	4.0	4.0	4.0	4.0
320.	4.2	4.0	4.0	4.1	4.1	4.0	4.0	4.0
330.	4.3	4.0	4.0	4.1	4.0	4.0	4.0	4.0
340.	4.3	4.0	4.0	4.1	4.1	4.0	4.0	4.0
350.	4.3	4.0	4.0	4.1	4.1	4.0	4.0	4.0
360.	4.2	4.1	4.1	4.0	4.2	4.1	4.0	4.0
MAX	4.3	4.4	4.5	4.4	4.2	4.3	4.3	4.3
DEGR.	70	80	100	100	0	70	100	80

THE HIGHEST CONCENTRATION OF 4.50 PPM OCCURRED AT RECEPTOR REC3 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT EXISTING CONDITIONS PM PEAK HOUR
I-10 Fwy. SB Ramps (NS). and County Line Rd. (EW)



COMMENTS:	MODEL:	POLLUTANT:	COMPANY NAME:
THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 4.60PPM	**CAL3QHC**	**CO**	**Urban Crossroads Inc.**
			MODELER: **H.Q.**
	MAX: **0.40**	UNITS: **ppm**	0 — 100 m
	LINKS: **11**	RECEPTORS: **8**	DATE: **10/27/2004**
			PROJECT / PLOT NO.: **JN: 02346**

URBAN CROSSROADS

CALRoads View - Lakes Environmental Software

C:\Documents and Settings\hqureshi\Desktop\CALROADS 2346\Existing Conditions\PM\I-10 SB _County Line Rd\PM.clv

JOB: I-10 FwySB Ramps/County Line Rd. PM EX RUN: I-10 FwySB Ramps/County Line Rd. PM EX

DATE : 10/18/ 4
TIME : 13:18: 2

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	LINK COORDINATES (M) X1	Y1	X2	Y2	V/C	QUEUE (VEH)
1. SB Appr.	305.	180.	AG	627.	9.4	0.0	14.0	-4.7	305.0	-4.7	0.0		
2. SB Queue	11.	360.	AG	2.	100.0	0.0	14.0	-4.7	6.2	-4.7	17.6	-.06	1.9
3. SB Q.Left	187.	360.	AG	2.	100.0	0.0	6.0	0.0	6.2	0.0	193.0	-.73	31.1
4. SB Dep.	305.	180.	AG	157.	9.4	0.0	14.0	-4.7	0.0	-4.7	-305.0		
5. EB Appr.	305.	90.	AG	62.	9.4	0.0	14.0	-305.0	-3.1	0.0	-3.1		
6. EB Queue	15.	270.	AG	2.	100.0	0.0	14.0	-7.8	-3.1	-22.9	-3.1	-.08	2.5
7. EB Dep.	305.	90.	AG	640.	9.4	0.0	14.0	0.0	-3.1	305.0	-3.1		
8. WB Appr.	305.	270.	AG	217.	9.4	0.0	14.0	305.0	3.1	0.0	3.1		
9. WB Queue	15.	90.	AG	2.	100.0	0.0	14.0	7.8	3.1	22.9	3.1	-.08	2.5
10. WB Dep.	305.	270.	AG	109.	9.4	0.0	14.0	0.0	3.1	-305.0	3.1		
11. WB Turn Q.	39.	90.	AG	2.	100.0	0.0	6.0	7.8	0.0	47.1	0.0	-.19	6.5

JOB: I-10 FwySB Ramps/County Line Rd. PM EX RUN: I-10 FwySB Ramps/County Line Rd. PM EX

DATE : 10/18/ 4
TIME : 13:18: 2

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. SB Queue	*	60	88	0.0	47	1600	0.40	2	1
3. SB Q.Left	*	60	88	0.0	580	1600	0.40	2	1
6. EB Queue	*	60	88	0.0	62	1600	0.40	2	1
9. WB Queue	*	60	88	0.0	62	1600	0.40	2	1
11. WB Turn Q.	*	60	88	0.0	155	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z	*
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8	*
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8	*
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8	*
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8	*
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8	*
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8	*
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8	*
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8	*

JOB: I-10 FwySB Ramps/County Line Rd. PM EX RUN: I-10 FwySB Ramps/County Line Rd. PM EX

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	0.3	0.2	0.1	0.1	0.2	0.1	0.0	0.0
5.	0.2	0.2	0.2	0.0	0.1	0.1	0.0	0.0
10.	0.2	0.2	0.2	0.0	0.1	0.1	0.1	0.1
15.	0.2	0.2	0.2	0.0	0.1	0.1	0.1	0.1
20.	0.2	0.2	0.2	0.0	0.1	0.1	0.1	0.1
25.	0.2	0.2	0.2	0.0	0.1	0.0	0.1	0.1
30.	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1
35.	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1
40.	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1
45.	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1
50.	0.3	0.1	0.2	0.0	0.1	0.1	0.1	0.1
55.	0.3	0.1	0.2	0.0	0.1	0.1	0.1	0.1
60.	0.3	0.1	0.2	0.0	0.1	0.1	0.1	0.1
65.	0.3	0.1	0.2	0.0	0.1	0.1	0.1	0.0
70.	0.4	0.3	0.1	0.0	0.1	0.1	0.1	0.1
75.	0.4	0.3	0.1	0.0	0.1	0.1	0.1	0.1
80.	0.4	0.3	0.1	0.0	0.1	0.1	0.1	0.1
85.	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.1
90.	0.2	0.2	0.4	0.2	0.0	0.0	0.2	0.1
95.	0.1	0.1	0.3	0.2	0.0	0.0	0.2	0.1
100.	0.1	0.1	0.4	0.3	0.0	0.0	0.2	0.1
105.	0.0	0.0	0.4	0.3	0.0	0.0	0.1	0.0
110.	0.0	0.0	0.4	0.3	0.0	0.0	0.1	0.0
115.	0.0	0.0	0.2	0.3	0.0	0.0	0.1	0.0
120.	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0
125.	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0
130.	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
135.	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
140.	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0
145.	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0
150.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
155.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
160.	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.0
165.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
170.	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0
175.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
180.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
185.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
190.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
195.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
200.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
205.	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0

JOB: I-10 FwySB Ramps/County Line Rd. PM EX RUN: I-10 FwySB Ramps/County Line Rd. PM EX

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	*	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
215.	*	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
220.	*	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
225.	*	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
230.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
235.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
240.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
245.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
250.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
255.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
260.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
265.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
270.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
275.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
280.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
285.	*	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
290.	*	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
295.	*	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
300.	*	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
305.	*	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
310.	*	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0
315.	*	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
320.	*	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
325.	*	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
330.	*	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
335.	*	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0
340.	*	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0
345.	*	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0
350.	*	0.3	0.1	0.1	0.1	0.2	0.0	0.0	0.0
355.	*	0.3	0.1	0.1	0.1	0.2	0.1	0.0	0.0
360.	*	0.3	0.2	0.1	0.1	0.2	0.1	0.0	0.0
MAX	*	0.4	0.3	0.4	0.3	0.2	0.1	0.2	0.1
DEGR.	*	70	70	90	100	0	0	85	10

THE HIGHEST CONCENTRATION OF 0.40 PPM OCCURRED AT RECEPTOR REC1 .

JOB: I-10 FwySB Ramps/County Line Rd. PM EX RUN: I-10 FwySB Ramps/County Line Rd. PM EX

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 3 (C) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
243.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
246.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
249.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
252.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
255.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
258.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
261.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
264.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
267.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
270.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
273.	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
276.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
279.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
282.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
285.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
288.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
291.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
294.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
297.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
300.	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
MAX	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
DEGR.	276	240	240	240	240	240	240	240

THE HIGHEST CONCENTRATION OF 0.10 PPM OCCURRED AT RECEPTOR REC4 .

JOB: I-10 FwySB Ramps/County Line Rd. PM EX RUN: I-10 FwySB Ramps/County Line Rd. PM EX

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	4.3	4.3	4.2	4.1	4.2	4.2	4.0	4.0
10.	4.2	4.4	4.4	4.0	4.1	4.3	4.1	4.2
20.	4.3	4.3	4.3	4.0	4.1	4.2	4.2	4.2
30.	4.3	4.2	4.2	4.0	4.1	4.2	4.1	4.1
40.	4.3	4.1	4.2	4.0	4.1	4.2	4.1	4.1
50.	4.3	4.1	4.2	4.0	4.1	4.1	4.1	4.1
60.	4.4	4.2	4.2	4.0	4.1	4.1	4.1	4.1
70.	4.4	4.4	4.2	4.0	4.3	4.3	4.1	4.2
80.	4.6	4.5	4.2	4.0	4.1	4.1	4.1	4.4
90.	4.4	4.4	4.5	4.3	4.0	4.0	4.4	4.4
100.	4.0	4.0	4.6	4.5	4.0	4.0	4.5	4.0
110.	4.0	4.0	4.6	4.4	4.0	4.0	4.1	4.0
120.	4.0	4.0	4.4	4.3	4.0	4.0	4.0	4.0
130.	4.0	4.0	4.3	4.3	4.0	4.0	4.0	4.0
140.	4.0	4.1	4.2	4.3	4.0	4.1	4.0	4.0
150.	4.0	4.1	4.1	4.3	4.0	4.1	4.0	4.0
160.	4.0	4.1	4.1	4.3	4.0	4.1	4.0	4.0
170.	4.0	4.1	4.1	4.2	4.0	4.1	4.0	4.0
180.	4.0	4.1	4.1	4.2	4.0	4.1	4.0	4.0
190.	4.1	4.0	4.0	4.3	4.1	4.0	4.0	4.0
200.	4.1	4.0	4.0	4.3	4.1	4.0	4.0	4.0
210.	4.0	4.0	4.0	4.3	4.0	4.0	4.0	4.0
220.	4.0	4.0	4.0	4.2	4.0	4.0	4.0	4.0
230.	4.0	4.0	4.0	4.2	4.0	4.0	4.0	4.0
240.	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
250.	4.0	4.0	4.1	4.1	4.0	4.0	4.1	4.0
260.	4.0	4.0	4.1	4.2	4.0	4.0	4.1	4.0
270.	4.0	4.0	4.0	4.2	4.0	4.0	4.0	4.0
280.	4.1	4.1	4.0	4.1	4.0	4.0	4.0	4.1
290.	4.1	4.0	4.0	4.1	4.0	4.0	4.0	4.0
300.	4.2	4.0	4.0	4.1	4.0	4.0	4.0	4.0
310.	4.3	4.0	4.0	4.1	4.0	4.0	4.0	4.0
320.	4.4	4.0	4.0	4.2	4.0	4.0	4.0	4.0
330.	4.5	4.0	4.0	4.2	4.1	4.0	4.0	4.0
340.	4.5	4.0	4.0	4.2	4.3	4.0	4.0	4.0
350.	4.5	4.0	4.0	4.3	4.4	4.0	4.0	4.0
360.	4.3	4.3	4.2	4.1	4.2	4.2	4.0	4.0
MAX	4.6	4.5	4.6	4.5	4.4	4.3	4.5	4.4
DEGR.	80	80	100	100	350	10	100	80

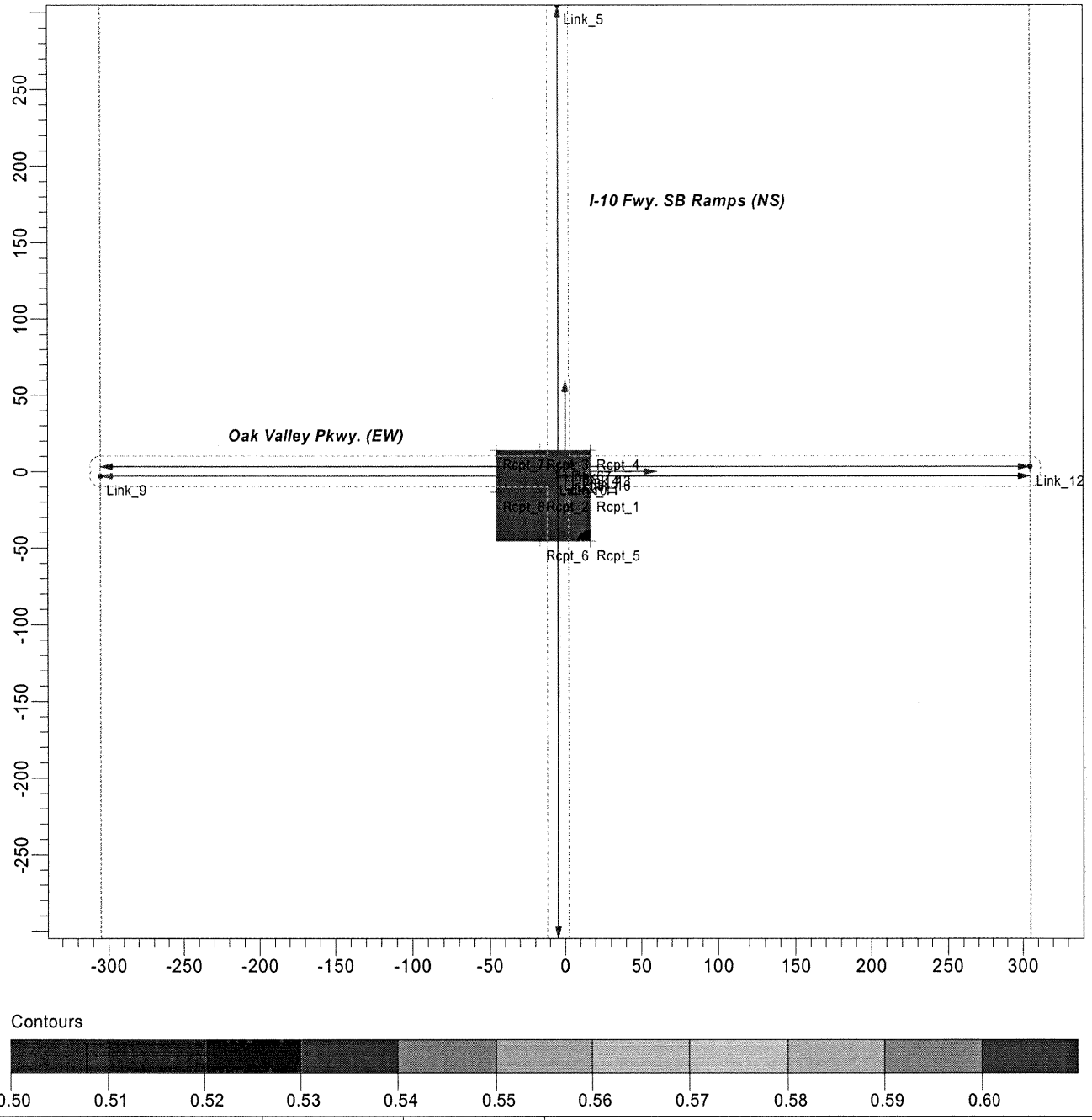
THE HIGHEST CONCENTRATION OF 4.60 PPM OCCURRED AT RECEPTOR REC1 .

APPENDIX D

PHASE 3 (2011) CONDITIONS
CAL3QHC CO HOTSPOT OUTPUT

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT PHASE 3 (2011) CONDITIONS AM PEAK HOUR
I-10 Fwy. SB Ramps (NS). and Oak Valley Pkwy. (EW)



COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 6.00PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
	MAX: **1.40**	UNITS: **ppm**	MODELER: **H.Q.** 0 100 m	URBAN CROSSROADS
	LINKS: **11**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3

DATE : 10/18/ 4
TIME : 13:29:31

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
	*	X1	Y1	X2	Y2	*
LENGTH BRG TYPE VPH EF	H W	V/C QUEUE				
(M) (DEG) (G/MI)	(M) (M)	(VEH)				
1. SB Appr.	*	-4.7	305.0	-4.7	0.0	*
305. 180. AG 568. 9.4	0.0 14.0					
2. SB Queue	*	-4.7	6.2	-4.7	9.6	*
3. 360. AG 0. 100.0	0.0 14.0	0.07	0.6			
3. SB Q.Left	*	0.0	6.2	0.0	36.4	*
30. 360. AG 0. 100.0	0.0 6.0	0.58	5.0			
4. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 612. 9.4	0.0 14.0					
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 899. 9.4	0.0 14.0					
6. EB Queue	*	-7.8	-3.1	-93.7	-3.1	*
86. 270. AG 0. 100.0	0.0 14.0	0.97	14.3			
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 1403. 9.4	0.0 14.0					
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 1504. 9.4	0.0 14.0					
9. WB Queue	*	7.8	3.1	25.2	3.1	*
17. 90. AG 0. 100.0	0.0 14.0	0.80	2.9			
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 956. 9.4	0.0 14.0					
11. WB Turn Q.	*	7.8	0.0	40.4	0.0	*
33. 90. AG 0. 100.0	0.0 6.0	0.66	5.4			

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3

DATE : 10/18/ 4
TIME : 13:29:31

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. SB Queue	*	110	32	12.0	64	1600	0.40	2	1
3. SB Q.Left	*	110	36	12.0	504	1600	0.40	2	1
6. EB Queue	*	110	32	12.0	899	1600	0.40	2	1
9. WB Queue	*	110	10	21.0	892	1600	0.40	2	1
11. WB Turn Q.	*	110	32	12.0	612	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z	*
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8	*
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8	*
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8	*
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8	*
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8	*
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8	*
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8	*
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8	*

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	0.8	0.6	0.2	0.1	0.5	0.3	0.0	0.4
5.	0.7	0.6	0.2	0.0	0.4	0.5	0.0	0.5
10.	0.7	0.7	0.3	0.0	0.4	0.5	0.1	0.5
15.	0.7	0.6	0.3	0.0	0.4	0.5	0.1	0.5
20.	0.7	0.6	0.2	0.0	0.4	0.7	0.1	0.5
25.	0.7	0.7	0.2	0.0	0.4	0.4	0.1	0.5
30.	0.7	0.6	0.2	0.0	0.4	0.5	0.1	0.6
35.	0.7	0.7	0.2	0.0	0.4	0.6	0.1	0.6
40.	0.7	0.8	0.2	0.0	0.4	0.6	0.1	0.6
45.	0.8	0.8	0.2	0.0	0.4	0.6	0.1	0.6
50.	0.9	0.7	0.2	0.0	0.4	0.6	0.1	0.6
55.	0.9	0.9	0.2	0.0	0.4	0.6	0.1	0.6
60.	0.9	1.0	0.2	0.0	0.4	0.6	0.1	0.7
65.	1.1	1.1	0.1	0.0	0.4	0.6	0.1	0.9
70.	1.1	1.2	0.1	0.0	0.4	0.5	0.1	0.9
75.	1.2	1.3	0.1	0.0	0.4	0.5	0.1	1.1
80.	1.2	1.3	0.3	0.2	0.4	0.5	0.3	1.2
85.	1.0	1.2	0.6	0.4	0.2	0.4	0.6	1.0
90.	0.8	1.0	0.9	0.8	0.1	0.3	0.9	0.9
95.	0.5	0.7	1.1	1.1	0.0	0.2	1.2	0.5
100.	0.2	0.3	1.4	1.3	0.0	0.1	1.2	0.3
105.	0.0	0.1	1.3	1.3	0.0	0.1	1.0	0.1
110.	0.0	0.2	1.1	1.2	0.0	0.2	0.9	0.1
115.	0.0	0.2	1.1	1.0	0.0	0.2	0.8	0.1
120.	0.0	0.2	0.9	1.0	0.0	0.2	0.7	0.1
125.	0.0	0.2	0.9	0.9	0.0	0.2	0.6	0.1
130.	0.0	0.2	0.7	0.9	0.0	0.2	0.6	0.1
135.	0.0	0.2	0.9	0.8	0.0	0.2	0.6	0.1
140.	0.0	0.2	0.8	0.8	0.0	0.2	0.6	0.1
145.	0.0	0.2	0.8	0.7	0.0	0.2	0.6	0.1
150.	0.0	0.2	0.7	0.7	0.0	0.2	0.6	0.1
155.	0.0	0.2	0.6	0.7	0.0	0.2	0.6	0.1
160.	0.0	0.3	0.6	0.7	0.0	0.3	0.5	0.1
165.	0.0	0.3	0.7	0.7	0.0	0.3	0.5	0.1
170.	0.0	0.3	0.7	0.7	0.0	0.3	0.5	0.1
175.	0.0	0.2	0.6	0.7	0.0	0.2	0.5	0.1
180.	0.1	0.2	0.7	0.8	0.1	0.2	0.5	0.0
185.	0.1	0.1	0.5	0.8	0.1	0.1	0.4	0.0
190.	0.2	0.0	0.4	0.9	0.2	0.0	0.4	0.0
195.	0.2	0.0	0.4	0.9	0.2	0.0	0.4	0.0
200.	0.2	0.0	0.4	0.9	0.2	0.0	0.4	0.0
205.	0.2	0.0	0.5	0.9	0.2	0.0	0.5	0.0

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.1	0.0	0.5	0.8	0.1	0.0	0.5	0.0
215.	0.1	0.0	0.5	0.8	0.1	0.0	0.5	0.0
220.	0.1	0.0	0.5	0.8	0.1	0.0	0.5	0.0
225.	0.1	0.0	0.5	0.9	0.1	0.0	0.5	0.0
230.	0.1	0.0	0.5	0.8	0.1	0.0	0.5	0.0
235.	0.1	0.0	0.5	0.9	0.1	0.0	0.5	0.0
240.	0.1	0.0	0.7	0.9	0.1	0.0	0.7	0.0
245.	0.1	0.0	0.7	0.8	0.1	0.0	0.7	0.0
250.	0.1	0.0	0.7	0.9	0.1	0.0	0.7	0.0
255.	0.1	0.0	0.8	0.9	0.1	0.0	0.8	0.0
260.	0.2	0.1	0.8	0.9	0.1	0.0	0.8	0.1
265.	0.4	0.3	0.7	0.8	0.1	0.0	0.6	0.3
270.	0.6	0.5	0.5	0.6	0.1	0.0	0.5	0.5
275.	0.8	0.7	0.3	0.4	0.3	0.2	0.3	0.7
280.	0.9	0.8	0.1	0.2	0.3	0.2	0.1	0.7
285.	0.9	0.8	0.0	0.1	0.4	0.2	0.0	0.7
290.	0.9	0.7	0.0	0.1	0.5	0.3	0.0	0.7
295.	0.8	0.7	0.0	0.1	0.4	0.3	0.0	0.7
300.	0.9	0.6	0.0	0.1	0.3	0.2	0.0	0.6
305.	0.9	0.6	0.0	0.1	0.3	0.2	0.0	0.6
310.	0.8	0.5	0.0	0.1	0.3	0.2	0.0	0.5
315.	0.9	0.5	0.0	0.1	0.3	0.2	0.0	0.5
320.	0.8	0.5	0.0	0.1	0.3	0.2	0.0	0.5
325.	0.8	0.5	0.0	0.1	0.3	0.2	0.0	0.5
330.	0.8	0.5	0.0	0.1	0.3	0.2	0.0	0.5
335.	0.8	0.4	0.0	0.1	0.5	0.2	0.0	0.4
340.	0.9	0.4	0.0	0.2	0.5	0.2	0.0	0.4
345.	0.9	0.4	0.0	0.2	0.3	0.2	0.0	0.4
350.	0.9	0.4	0.0	0.2	0.4	0.2	0.0	0.4
355.	0.8	0.5	0.1	0.1	0.5	0.3	0.0	0.4
360.	0.8	0.6	0.2	0.1	0.5	0.3	0.0	0.4
MAX	1.2	1.3	1.4	1.3	0.5	0.7	1.2	1.2
DEGR.	75	75	100	100	0	20	95	80

THE HIGHEST CONCENTRATION OF 1.40 PPM OCCURRED AT RECEPTOR REC3 .

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.1	0.0	0.5	0.9	0.1	0.0	0.5	0.0
243.	0.1	0.0	0.5	0.9	0.1	0.0	0.5	0.0
246.	0.1	0.0	0.6	0.7	0.1	0.0	0.6	0.0
249.	0.1	0.0	0.6	0.7	0.1	0.0	0.6	0.0
252.	0.1	0.0	0.6	0.8	0.1	0.0	0.6	0.0
255.	0.1	0.1	0.6	0.8	0.1	0.0	0.6	0.0
258.	0.2	0.1	0.6	0.7	0.1	0.0	0.6	0.1
261.	0.3	0.2	0.6	0.7	0.1	0.0	0.6	0.2
264.	0.4	0.3	0.5	0.7	0.1	0.0	0.5	0.3
267.	0.4	0.3	0.5	0.7	0.1	0.0	0.5	0.3
270.	0.5	0.4	0.4	0.5	0.1	0.0	0.4	0.3
273.	0.6	0.5	0.3	0.4	0.2	0.0	0.3	0.5
276.	0.7	0.5	0.3	0.4	0.3	0.2	0.3	0.5
279.	0.7	0.6	0.2	0.3	0.3	0.2	0.2	0.5
282.	0.8	0.7	0.1	0.2	0.3	0.2	0.1	0.6
285.	0.8	0.7	0.1	0.2	0.3	0.2	0.1	0.7
288.	0.9	0.7	0.0	0.1	0.3	0.2	0.0	0.7
291.	0.7	0.7	0.0	0.1	0.3	0.2	0.0	0.7
294.	0.7	0.6	0.0	0.1	0.3	0.2	0.0	0.6
297.	0.8	0.5	0.0	0.1	0.3	0.2	0.0	0.5
300.	0.9	0.5	0.0	0.1	0.3	0.2	0.0	0.5
MAX	0.9	0.7	0.6	0.9	0.3	0.2	0.6	0.7
DEGR.	288	282	246	240	276	276	246	285

THE HIGHEST CONCENTRATION OF 0.90 PPM OCCURRED AT RECEPTOR REC4 .

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. AM PH3

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

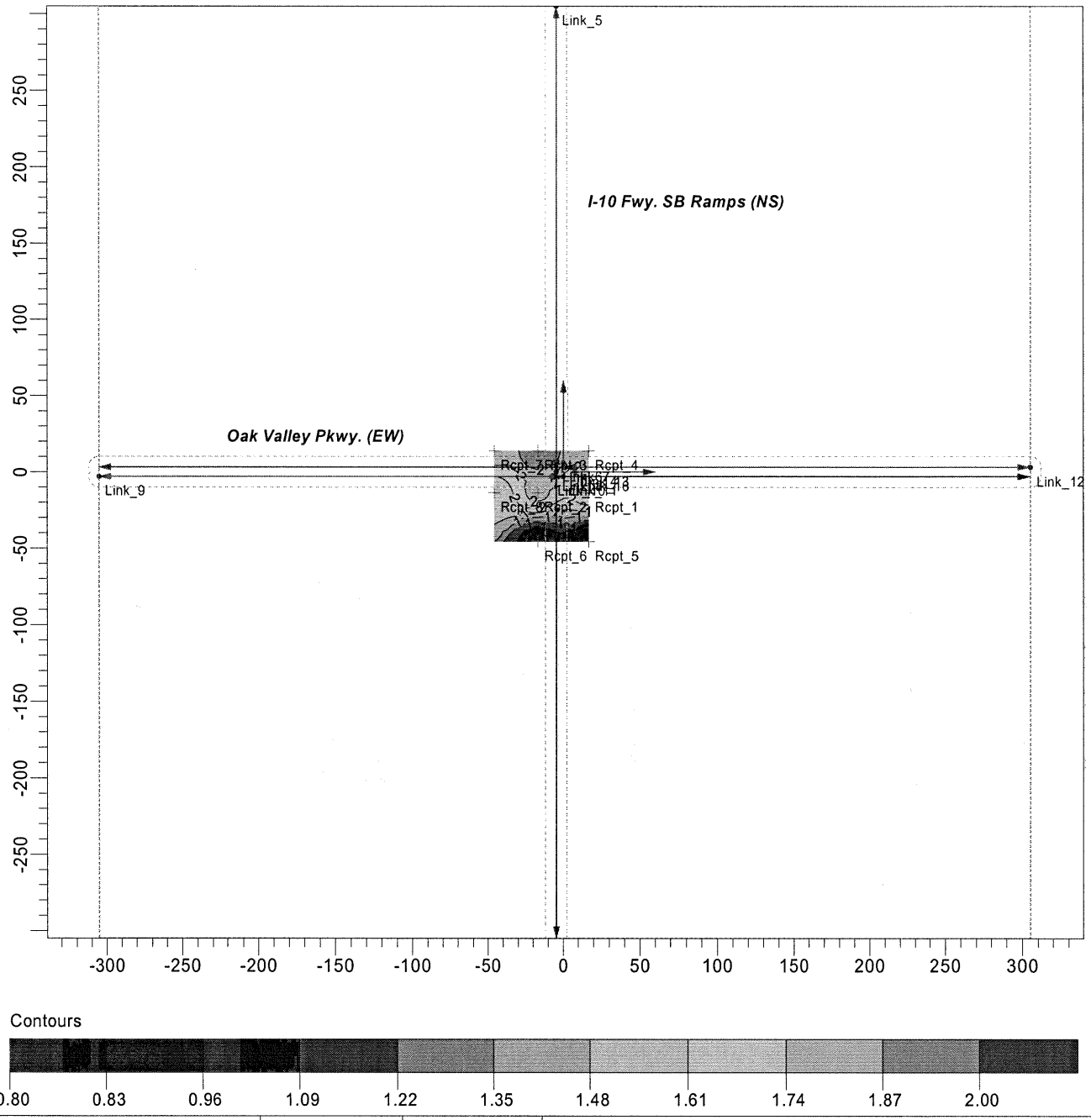
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	4.8	4.6	4.2	4.1	4.5	4.4	4.0	4.4
10.	4.7	4.8	4.4	4.0	4.4	4.6	4.1	4.5
20.	4.8	4.7	4.3	4.0	4.4	4.7	4.1	4.5
30.	4.8	4.8	4.2	4.0	4.4	4.6	4.1	4.6
40.	4.9	4.8	4.2	4.0	4.4	4.6	4.1	4.6
50.	4.9	4.9	4.2	4.0	4.6	4.8	4.1	4.7
60.	5.1	5.1	4.2	4.0	4.6	4.8	4.1	4.9
70.	5.3	5.5	4.1	4.0	4.7	5.0	4.1	5.1
80.	5.8	6.0	4.1	4.0	4.5	4.8	4.1	5.7
90.	5.0	5.3	5.2	5.0	4.0	4.2	5.3	5.2
100.	4.0	4.2	5.8	5.8	4.0	4.2	5.8	4.1
110.	4.0	4.2	5.4	5.4	4.0	4.2	5.2	4.1
120.	4.0	4.2	5.1	5.1	4.0	4.2	4.9	4.1
130.	4.0	4.2	4.9	4.9	4.0	4.2	4.7	4.1
140.	4.0	4.2	4.8	4.9	4.0	4.2	4.6	4.1
150.	4.0	4.2	4.8	4.8	4.0	4.2	4.6	4.1
160.	4.0	4.3	4.8	4.7	4.0	4.3	4.7	4.2
170.	4.0	4.4	4.9	4.7	4.0	4.4	4.6	4.1
180.	4.1	4.2	4.7	4.8	4.1	4.2	4.5	4.0
190.	4.3	4.0	4.5	5.0	4.3	4.0	4.5	4.0
200.	4.2	4.0	4.5	4.9	4.2	4.0	4.5	4.0
210.	4.2	4.0	4.5	4.9	4.2	4.0	4.5	4.0
220.	4.2	4.0	4.5	5.0	4.2	4.0	4.5	4.0
230.	4.1	4.0	4.6	5.0	4.1	4.0	4.6	4.0
240.	4.1	4.0	4.7	4.9	4.1	4.0	4.7	4.0
250.	4.1	4.0	4.9	5.1	4.1	4.0	4.9	4.0
260.	4.1	4.0	5.2	5.4	4.1	4.0	5.2	4.0
270.	4.7	4.6	4.6	4.8	4.1	4.0	4.6	4.6
280.	5.3	5.1	4.0	4.1	4.5	4.4	4.0	5.1
290.	5.1	4.9	4.0	4.1	4.5	4.4	4.0	4.9
300.	5.0	4.7	4.0	4.1	4.5	4.4	4.0	4.7
310.	5.0	4.6	4.0	4.1	4.5	4.4	4.0	4.6
320.	4.9	4.5	4.0	4.1	4.6	4.4	4.0	4.5
330.	5.0	4.5	4.0	4.2	4.3	4.2	4.0	4.5
340.	4.9	4.4	4.0	4.2	4.6	4.2	4.0	4.4
350.	5.0	4.4	4.0	4.2	4.7	4.2	4.0	4.4
360.	4.8	4.6	4.2	4.1	4.5	4.4	4.0	4.4
MAX	5.8	6.0	5.8	5.8	4.7	5.0	5.8	5.7
DEGR.	80	80	100	100	70	70	100	80

THE HIGHEST CONCENTRATION OF 6.00 PPM OCCURRED AT RECEPTOR REC2 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT PHASE 3 (2011) CONDITIONS PM PEAK HOUR
I-10 Fwy. SB Ramps (NS). and Oak Valley Pkwy. (EW)



COMMENTS:	MODEL:	POLLUTANT:	COMPANY NAME:
THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 7.00PPM	**CAL3QHC**	**CO**	**Urban Crossroads Inc.**
	MAX: **2.00**	UNITS: **ppm**	MODELER: **H.Q.**
	LINKS: **11**	RECEPTORS: **8**	0 — 100 m
			DATE: **10/27/2004**
			PROJECT / PLOT NO.: **JN: 02346**

URBAN CROSSROADS

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3

DATE : 10/18/ 4
TIME : 13:34:16

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
	*	X1	Y1	X2	Y2	*
1. SB Appr.	*	-4.7	305.0	-4.7	0.0	*
305. 180. AG 1241. 9.4 0.0 14.0						
2. SB Queue	*	-4.7	6.2	-4.7	18.4	*
12. 360. AG 0. 100.0 0.0 14.0 0.24 2.0						
3. SB Q.Left	*	0.0	6.2	0.0	3063.4	*
3057. 360. AG 1. 100.0 0.0 6.0 8.84 509.5						
4. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 555. 9.4 0.0 14.0						
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 837. 9.4 0.0 14.0						
6. EB Queue	*	-7.8	-3.1	********	-3.1	*
***** 270. AG 1. 100.0 0.0 14.0 **** *****						
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 1863. 9.4 0.0 14.0						
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 2287. 9.4 0.0 14.0						
9. WB Queue	*	7.8	3.1	2678.6	3.1	*
2671. 90. AG 0. 100.0 0.0 14.0 1.92 445.1						
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 1947. 9.4 0.0 14.0						
11. WB Turn Q.	*	7.8	0.0	36.5	0.0	*
29. 90. AG 0. 100.0 0.0 6.0 0.59 4.8						

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3

DATE : 10/18/ 4
TIME : 13:34:16

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. SB Queue	*	110	34	12.0	215	1600	0.40	2	1
3. SB Q.Left	*	110	88	12.0	1026	1600	0.40	2	1
6. EB Queue	*	110	98	12.0	837	1600	0.40	2	1
9. WB Queue	*	110	25	21.0	1732	1600	0.40	2	1
11. WB Turn Q.	*	110	31	12.0	555	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z	*
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8	*
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8	*
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8	*
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8	*
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8	*
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8	*
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8	*
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8	*

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	1.2	1.0	0.4	0.2	0.7	0.6	0.1	0.7
5.	1.1	1.1	0.5	0.1	0.6	0.8	0.1	0.7
10.	1.0	1.1	0.6	0.0	0.5	0.9	0.2	0.8
15.	1.0	1.1	0.6	0.0	0.5	0.8	0.2	0.8
20.	1.0	1.0	0.5	0.0	0.4	0.8	0.2	0.8
25.	1.0	1.0	0.5	0.0	0.5	0.7	0.2	0.8
30.	1.0	1.1	0.4	0.0	0.5	0.6	0.2	0.8
35.	1.0	1.0	0.4	0.0	0.6	0.7	0.2	0.8
40.	1.1	1.1	0.4	0.0	0.6	0.7	0.2	0.9
45.	1.2	1.1	0.4	0.0	0.6	0.8	0.2	1.0
50.	1.2	1.2	0.4	0.0	0.6	0.8	0.2	1.0
55.	1.3	1.2	0.3	0.0	0.6	0.8	0.2	1.1
60.	1.3	1.3	0.3	0.0	0.6	0.7	0.2	1.1
65.	1.5	1.3	0.3	0.0	0.7	0.8	0.2	1.1
70.	1.6	1.5	0.3	0.0	0.7	0.8	0.2	1.3
75.	1.7	1.8	0.4	0.1	0.6	0.7	0.3	1.5
80.	1.7	1.7	0.6	0.3	0.4	0.7	0.5	1.5
85.	1.5	1.6	1.0	0.7	0.3	0.5	0.9	1.5
90.	1.0	1.2	1.5	1.2	0.2	0.3	1.4	1.2
95.	0.6	0.7	2.0	1.5	0.0	0.1	1.6	0.6
100.	0.3	0.4	2.0	1.8	0.0	0.1	1.8	0.3
105.	0.1	0.2	2.0	1.8	0.0	0.1	1.7	0.1
110.	0.0	0.1	1.9	1.6	0.0	0.1	1.5	0.1
115.	0.0	0.1	1.7	1.6	0.0	0.1	1.3	0.1
120.	0.0	0.1	1.5	1.4	0.0	0.1	1.2	0.1
125.	0.0	0.2	1.5	1.3	0.0	0.2	1.1	0.1
130.	0.0	0.2	1.4	1.3	0.0	0.2	0.9	0.1
135.	0.0	0.2	1.2	1.2	0.0	0.2	0.9	0.1
140.	0.0	0.2	1.1	1.1	0.0	0.2	0.9	0.1
145.	0.0	0.2	1.1	1.1	0.0	0.2	0.9	0.1
150.	0.0	0.2	1.0	1.0	0.0	0.2	0.8	0.1
155.	0.0	0.2	1.0	1.0	0.0	0.2	0.8	0.1
160.	0.0	0.2	1.0	1.0	0.0	0.2	0.8	0.1
165.	0.0	0.2	0.9	1.0	0.0	0.2	0.8	0.1
170.	0.0	0.2	0.9	1.0	0.0	0.2	0.8	0.1
175.	0.0	0.2	0.9	1.0	0.0	0.2	0.8	0.0
180.	0.1	0.2	0.9	1.1	0.1	0.2	0.7	0.0
185.	0.1	0.1	0.8	1.1	0.1	0.1	0.7	0.0
190.	0.2	0.0	0.7	1.2	0.1	0.0	0.7	0.0
195.	0.2	0.0	0.7	1.2	0.2	0.0	0.7	0.0
200.	0.2	0.0	0.7	1.2	0.2	0.0	0.7	0.0
205.	0.1	0.0	0.7	1.1	0.1	0.0	0.7	0.0

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	*	0.1	0.0	0.7	1.1	0.1	0.0	0.7	0.0
215.	*	0.1	0.0	0.8	1.1	0.1	0.0	0.8	0.0
220.	*	0.1	0.0	0.8	1.2	0.1	0.0	0.8	0.0
225.	*	0.1	0.0	0.8	1.3	0.1	0.0	0.8	0.0
230.	*	0.1	0.0	0.8	1.3	0.1	0.0	0.8	0.0
235.	*	0.1	0.0	0.9	1.3	0.1	0.0	0.9	0.0
240.	*	0.1	0.0	0.9	1.3	0.1	0.0	0.9	0.0
245.	*	0.1	0.0	1.1	1.3	0.1	0.0	1.1	0.0
250.	*	0.1	0.0	1.2	1.4	0.1	0.0	1.2	0.0
255.	*	0.1	0.0	1.3	1.5	0.1	0.0	1.3	0.0
260.	*	0.3	0.2	1.3	1.5	0.1	0.0	1.3	0.2
265.	*	0.5	0.4	1.1	1.3	0.1	0.0	1.1	0.4
270.	*	0.8	0.7	0.9	1.1	0.2	0.1	0.8	0.7
275.	*	1.2	1.0	0.5	0.7	0.3	0.2	0.5	0.9
280.	*	1.3	1.1	0.2	0.4	0.4	0.3	0.2	1.0
285.	*	1.3	1.1	0.1	0.3	0.5	0.4	0.1	1.1
290.	*	1.2	1.0	0.0	0.2	0.5	0.4	0.0	1.0
295.	*	1.3	1.0	0.0	0.2	0.5	0.4	0.0	0.9
300.	*	1.4	0.8	0.0	0.2	0.5	0.4	0.0	0.8
305.	*	1.3	0.8	0.0	0.2	0.5	0.4	0.0	0.8
310.	*	1.3	0.8	0.0	0.2	0.5	0.4	0.0	0.8
315.	*	1.3	0.8	0.0	0.3	0.4	0.4	0.0	0.8
320.	*	1.2	0.7	0.0	0.3	0.4	0.3	0.0	0.7
325.	*	1.3	0.6	0.0	0.3	0.5	0.3	0.0	0.6
330.	*	1.4	0.6	0.0	0.3	0.6	0.3	0.0	0.6
335.	*	1.3	0.6	0.0	0.3	0.8	0.3	0.0	0.6
340.	*	1.3	0.6	0.0	0.3	0.6	0.3	0.0	0.6
345.	*	1.4	0.6	0.0	0.4	0.8	0.3	0.0	0.6
350.	*	1.4	0.7	0.1	0.3	0.7	0.4	0.0	0.6
355.	*	1.3	0.8	0.2	0.3	0.7	0.5	0.0	0.6
360.	*	1.2	1.0	0.4	0.2	0.7	0.6	0.1	0.7
MAX	*	1.7	1.8	2.0	1.8	0.8	0.9	1.8	1.5
DEGR.	*	75	75	95	100	335	10	100	80

THE HIGHEST CONCENTRATION OF 2.00 PPM OCCURRED AT RECEPTOR REC3 .

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.1	0.0	0.9	1.1	0.1	0.0	0.9	0.0
243.	0.1	0.0	0.9	1.2	0.1	0.0	0.9	0.0
246.	0.1	0.0	0.9	1.3	0.1	0.0	0.9	0.0
249.	0.1	0.0	1.0	1.2	0.1	0.0	1.0	0.0
252.	0.1	0.0	1.0	1.3	0.1	0.0	1.0	0.0
255.	0.1	0.0	1.0	1.2	0.1	0.0	1.0	0.0
258.	0.3	0.2	1.0	1.2	0.1	0.0	1.0	0.2
261.	0.3	0.2	1.0	1.2	0.1	0.0	1.0	0.2
264.	0.4	0.3	0.9	1.1	0.1	0.0	0.9	0.3
267.	0.6	0.4	0.8	1.1	0.1	0.0	0.8	0.4
270.	0.6	0.5	0.6	0.8	0.2	0.1	0.6	0.5
273.	0.8	0.7	0.5	0.7	0.3	0.1	0.5	0.7
276.	1.0	0.7	0.4	0.6	0.3	0.2	0.4	0.7
279.	1.0	0.8	0.3	0.5	0.4	0.2	0.2	0.8
282.	1.1	0.8	0.2	0.4	0.4	0.3	0.2	0.8
285.	1.1	0.8	0.1	0.3	0.4	0.3	0.1	0.8
288.	1.0	0.8	0.1	0.3	0.4	0.3	0.1	0.8
291.	1.1	0.8	0.0	0.2	0.4	0.3	0.0	0.8
294.	1.3	0.8	0.0	0.2	0.4	0.3	0.0	0.8
297.	1.2	0.8	0.0	0.2	0.4	0.3	0.0	0.8
300.	1.1	0.8	0.0	0.2	0.4	0.3	0.0	0.8
MAX	1.3	0.8	1.0	1.3	0.4	0.3	1.0	0.8
DEGR.	294	279	249	252	279	282	249	279

THE HIGHEST CONCENTRATION OF 1.30 PPM OCCURRED AT RECEPTOR REC4 .

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

JOB: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3 RUN: I-10 FwySB Ramps/Oak Valley Pkwy. PM PH3

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	5.2	5.1	4.5	4.2	4.8	4.9	4.0	4.6
10.	5.0	5.4	4.8	4.0	4.6	5.0	4.3	4.9
20.	5.0	5.1	4.6	4.0	4.6	4.9	4.3	5.0
30.	5.1	5.2	4.5	4.0	4.6	4.8	4.3	5.0
40.	5.2	5.2	4.4	4.0	4.7	4.9	4.2	5.0
50.	5.4	5.2	4.4	4.0	4.7	4.9	4.2	5.0
60.	5.6	5.6	4.4	4.0	4.8	5.0	4.2	5.2
70.	5.9	5.8	4.3	4.0	5.0	5.1	4.2	5.6
80.	6.5	6.6	4.4	4.1	4.8	4.9	4.3	6.4
90.	5.3	5.6	5.9	5.4	4.0	4.2	5.8	5.6
100.	4.1	4.2	7.0	6.6	4.0	4.1	6.6	4.2
110.	4.0	4.1	6.2	6.0	4.0	4.1	5.8	4.1
120.	4.0	4.2	5.7	5.6	4.0	4.2	5.2	4.1
130.	4.0	4.2	5.4	5.3	4.0	4.2	5.0	4.1
140.	4.0	4.2	5.3	5.2	4.0	4.2	4.9	4.1
150.	4.0	4.2	5.1	5.2	4.0	4.2	4.9	4.1
160.	4.0	4.3	5.0	5.0	4.0	4.3	4.8	4.1
170.	4.0	4.4	5.1	5.0	4.0	4.4	4.8	4.1
180.	4.1	4.2	4.9	5.1	4.1	4.2	4.7	4.0
190.	4.2	4.0	4.7	5.2	4.2	4.0	4.7	4.0
200.	4.2	4.0	4.7	5.2	4.2	4.0	4.7	4.0
210.	4.2	4.0	4.8	5.3	4.2	4.0	4.8	4.0
220.	4.1	4.0	4.8	5.3	4.1	4.0	4.8	4.0
230.	4.1	4.0	4.9	5.4	4.1	4.0	4.9	4.0
240.	4.1	4.0	5.1	5.4	4.1	4.0	5.1	4.0
250.	4.1	4.0	5.3	5.6	4.1	4.0	5.3	4.0
260.	4.1	4.0	5.8	6.0	4.1	4.0	5.8	4.0
270.	5.0	4.9	5.1	5.4	4.1	4.0	5.0	4.8
280.	5.8	5.6	4.1	4.3	4.7	4.5	4.1	5.6
290.	5.5	5.2	4.0	4.3	4.8	4.7	4.0	5.2
300.	5.5	5.0	4.0	4.3	4.7	4.6	4.0	5.0
310.	5.4	4.9	4.0	4.3	4.6	4.5	4.0	4.9
320.	5.5	4.8	4.0	4.3	4.5	4.4	4.0	4.8
330.	5.4	4.7	4.0	4.4	4.6	4.4	4.0	4.7
340.	5.4	4.7	4.0	4.4	4.9	4.4	4.0	4.7
350.	5.6	4.6	4.0	4.5	5.2	4.4	4.0	4.6
360.	5.2	5.1	4.5	4.2	4.8	4.9	4.0	4.6
MAX	6.5	6.6	7.0	6.6	5.2	5.1	6.6	6.4
DEGR.	80	80	100	100	350	70	100	80

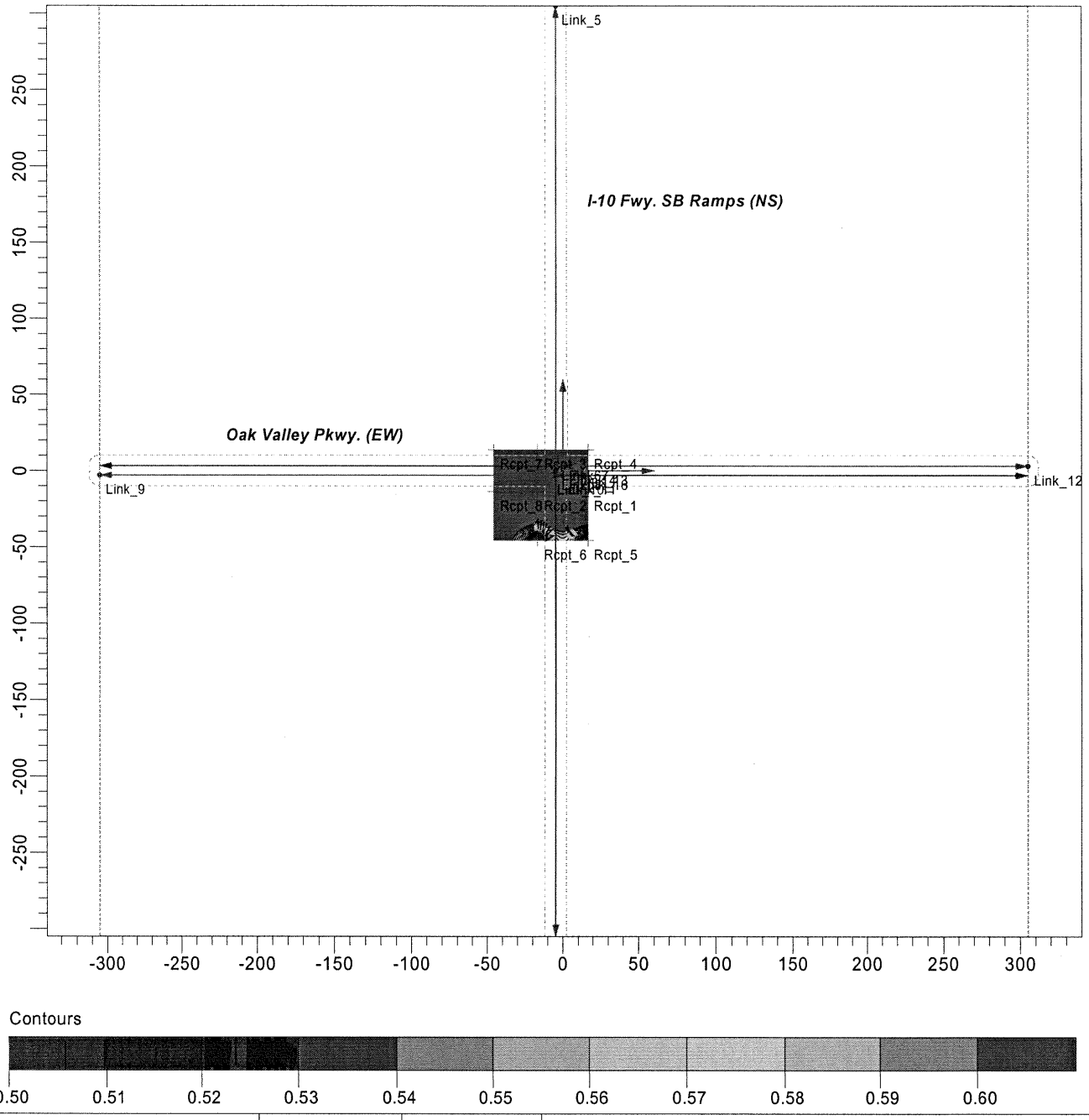
THE HIGHEST CONCENTRATION OF 7.00 PPM OCCURRED AT RECEPTOR REC3 .

APPENDIX E

2030 PROJECT BUILDOUT CONDITIONS
CAL3QHC CO HOTSPOT OUTPUT

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT 2030 CONDITIONS AM PEAK HOUR
I-10 Fwy. SB Ramps (NS). and Oak Valley Pkwy. (EW)



Contours

COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 5.70PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
			MODELER: **H.Q.**	URBAN CROSSROADS
	MAX: **0.90**	UNITS: **ppm**	0 100 m	
	LINKS: **11**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030

DATE : 10/18/ 4
TIME : 13:43:23

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 2 (B) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
LENGTH BRG TYPE VPH EF	H W	V/C QUEUE				
	*	X1	Y1	X2	Y2	*
(M) (DEG) (G/MI)	(M) (M)	(VEH)				
1. SB Appr.	*	-4.7	305.0	-4.7	0.0	*
305. 180. AG 728. 9.4	0.0 14.0					
2. SB Queue	*	-4.7	6.2	-4.7	15.3	*
9. 360. AG 0. 100.0	0.0 14.0	0.16	1.5			
3. SB Q.Left	*	0.0	6.2	0.0	48.1	*
42. 360. AG 0. 100.0	0.0 6.0	0.70	7.0			
4. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 677. 9.4	0.0 14.0					
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 1280. 9.4	0.0 14.0					
6. EB Queue	*	-7.8	-3.1	-1075.7	-3.1	*
1068. 270. AG 0. 100.0	0.0 14.0	1.32	178.0			
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 1864. 9.4	0.0 14.0					
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 1712. 9.4	0.0 14.0					
9. WB Queue	*	7.8	3.1	24.9	3.1	*
17. 90. AG 0. 100.0	0.0 14.0	0.80	2.8			
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 1179. 9.4	0.0 14.0					
11. WB Turn Q.	*	7.8	0.0	54.9	0.0	*
47. 90. AG 0. 100.0	0.0 6.0	0.77	7.8			

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030

DATE : 10/18/ 4
TIME : 13:43:23

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. SB Queue	*	120	38	12.0	144	1600	0.40	2	1
3. SB Q.Left	*	120	43	12.0	584	1600	0.40	2	1
6. EB Queue	*	120	33	12.0	1280	1600	0.40	2	1
9. WB Queue	*	120	9	12.0	1035	1600	0.40	2	1
11. WB Turn Q.	*	120	40	12.0	677	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	0.9	0.6	0.1	0.1	0.2	0.3	0.0	0.5
5.	0.9	0.6	0.1	0.1	0.2	0.3	0.0	0.5
10.	0.9	0.7	0.1	0.1	0.2	0.5	0.0	0.5
15.	0.8	0.9	0.2	0.0	0.2	0.4	0.0	0.5
20.	0.8	0.9	0.2	0.0	0.2	0.4	0.1	0.5
25.	0.8	0.9	0.2	0.0	0.2	0.4	0.1	0.6
30.	0.8	0.7	0.2	0.0	0.3	0.3	0.1	0.6
35.	0.7	0.7	0.2	0.0	0.3	0.3	0.1	0.6
40.	0.7	0.7	0.2	0.0	0.3	0.3	0.1	0.6
45.	0.8	0.8	0.2	0.1	0.3	0.3	0.1	0.7
50.	0.8	0.9	0.3	0.1	0.3	0.3	0.1	0.7
55.	0.8	0.9	0.3	0.1	0.2	0.3	0.1	0.7
60.	0.7	0.8	0.4	0.2	0.2	0.3	0.4	0.6
65.	0.7	0.8	0.4	0.3	0.2	0.4	0.4	0.5
70.	0.7	0.8	0.4	0.3	0.2	0.4	0.4	0.5
75.	0.7	0.8	0.6	0.3	0.2	0.4	0.4	0.5
80.	0.6	0.6	0.7	0.5	0.2	0.4	0.5	0.5
85.	0.6	0.6	0.7	0.5	0.2	0.4	0.5	0.5
90.	0.6	0.6	0.7	0.6	0.2	0.4	0.5	0.5
95.	0.5	0.7	0.6	0.6	0.2	0.4	0.5	0.5
100.	0.5	0.6	0.7	0.7	0.1	0.3	0.5	0.4
105.	0.4	0.6	0.7	0.7	0.0	0.2	0.5	0.4
110.	0.3	0.5	0.7	0.7	0.0	0.2	0.5	0.4
115.	0.3	0.4	0.8	0.7	0.0	0.2	0.6	0.4
120.	0.3	0.4	0.8	0.7	0.0	0.2	0.6	0.3
125.	0.1	0.3	0.9	0.7	0.0	0.2	0.6	0.2
130.	0.1	0.2	0.9	0.7	0.0	0.1	0.6	0.1
135.	0.1	0.2	0.8	0.7	0.0	0.2	0.7	0.1
140.	0.0	0.2	0.7	0.7	0.0	0.2	0.5	0.1
145.	0.0	0.2	0.7	0.7	0.0	0.1	0.5	0.1
150.	0.0	0.1	0.8	0.7	0.0	0.1	0.5	0.1
155.	0.0	0.1	0.8	0.7	0.0	0.1	0.5	0.0
160.	0.0	0.1	0.9	0.7	0.0	0.1	0.5	0.0
165.	0.0	0.1	0.8	0.7	0.0	0.1	0.5	0.0
170.	0.0	0.1	0.8	0.7	0.0	0.1	0.5	0.0
175.	0.1	0.1	0.7	0.8	0.1	0.1	0.5	0.0
180.	0.1	0.1	0.6	0.8	0.1	0.1	0.5	0.0
185.	0.1	0.1	0.6	0.8	0.1	0.1	0.5	0.0
190.	0.1	0.1	0.6	0.8	0.1	0.1	0.5	0.0
195.	0.1	0.1	0.6	0.8	0.1	0.1	0.5	0.0
200.	0.1	0.1	0.6	0.9	0.1	0.1	0.5	0.0
205.	0.1	0.1	0.6	0.9	0.1	0.1	0.5	0.0

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.1	0.0	0.5	0.8	0.1	0.0	0.5	0.0
215.	0.1	0.0	0.5	0.8	0.1	0.0	0.5	0.0
220.	0.1	0.0	0.5	0.8	0.1	0.0	0.5	0.0
225.	0.1	0.0	0.5	0.8	0.1	0.0	0.5	0.0
230.	0.1	0.1	0.5	0.8	0.1	0.0	0.5	0.1
235.	0.2	0.1	0.5	0.7	0.1	0.0	0.5	0.1
240.	0.2	0.1	0.5	0.6	0.1	0.0	0.5	0.1
245.	0.3	0.2	0.5	0.6	0.1	0.0	0.5	0.2
250.	0.4	0.3	0.5	0.6	0.1	0.0	0.5	0.3
255.	0.4	0.3	0.5	0.6	0.1	0.0	0.5	0.3
260.	0.4	0.3	0.5	0.6	0.1	0.0	0.5	0.3
265.	0.4	0.3	0.5	0.6	0.1	0.0	0.5	0.3
270.	0.5	0.4	0.3	0.5	0.2	0.1	0.3	0.4
275.	0.6	0.5	0.3	0.4	0.3	0.2	0.3	0.5
280.	0.7	0.5	0.3	0.4	0.3	0.2	0.3	0.5
285.	0.6	0.5	0.3	0.4	0.3	0.2	0.3	0.5
290.	0.6	0.5	0.2	0.4	0.3	0.2	0.2	0.5
295.	0.6	0.5	0.2	0.3	0.3	0.2	0.2	0.5
300.	0.7	0.5	0.1	0.2	0.3	0.2	0.1	0.5
305.	0.8	0.5	0.1	0.2	0.3	0.2	0.1	0.5
310.	0.7	0.5	0.1	0.1	0.3	0.2	0.1	0.5
315.	0.8	0.5	0.0	0.1	0.3	0.2	0.0	0.5
320.	0.8	0.5	0.0	0.1	0.3	0.2	0.0	0.5
325.	0.8	0.5	0.0	0.1	0.4	0.2	0.0	0.5
330.	0.9	0.5	0.0	0.1	0.4	0.2	0.0	0.5
335.	0.9	0.6	0.1	0.1	0.5	0.2	0.0	0.5
340.	0.7	0.6	0.1	0.1	0.4	0.2	0.0	0.5
345.	0.7	0.6	0.1	0.1	0.2	0.3	0.0	0.5
350.	0.7	0.6	0.1	0.1	0.2	0.3	0.0	0.5
355.	0.8	0.6	0.1	0.1	0.2	0.3	0.0	0.5
360.	0.9	0.6	0.1	0.1	0.2	0.3	0.0	0.5
MAX	0.9	0.9	0.9	0.9	0.5	0.5	0.7	0.7
DEGR.	0	15	160	205	335	10	135	45

THE HIGHEST CONCENTRATION OF 0.90 PPM OCCURRED AT RECEPTOR REC1 .

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 3 (C) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.1	0.0	0.7	0.9	0.1	0.0	0.7	0.0
243.	0.1	0.1	0.7	0.9	0.1	0.0	0.7	0.1
246.	0.2	0.1	0.7	0.9	0.1	0.0	0.7	0.1
249.	0.2	0.1	0.7	0.8	0.1	0.0	0.7	0.1
252.	0.3	0.2	0.7	0.8	0.1	0.0	0.7	0.2
255.	0.3	0.2	0.7	0.8	0.1	0.0	0.7	0.2
258.	0.4	0.3	0.6	0.7	0.1	0.0	0.6	0.3
261.	0.5	0.3	0.5	0.7	0.1	0.0	0.5	0.3
264.	0.5	0.3	0.5	0.6	0.1	0.0	0.5	0.3
267.	0.5	0.4	0.5	0.6	0.2	0.0	0.5	0.4
270.	0.6	0.5	0.5	0.6	0.2	0.1	0.5	0.5
273.	0.6	0.5	0.4	0.6	0.3	0.2	0.4	0.5
276.	0.8	0.6	0.3	0.5	0.3	0.2	0.3	0.6
279.	0.8	0.6	0.3	0.4	0.3	0.2	0.3	0.6
282.	0.8	0.6	0.3	0.3	0.3	0.2	0.3	0.6
285.	0.8	0.6	0.2	0.3	0.3	0.2	0.2	0.6
288.	0.8	0.6	0.2	0.3	0.3	0.2	0.2	0.6
291.	0.9	0.6	0.1	0.2	0.3	0.2	0.1	0.6
294.	0.9	0.7	0.1	0.2	0.3	0.2	0.1	0.7
297.	0.9	0.7	0.1	0.1	0.3	0.2	0.1	0.7
300.	1.0	0.7	0.0	0.1	0.3	0.2	0.0	0.7
MAX	1.0	0.7	0.7	0.9	0.3	0.2	0.7	0.7
DEGR.	300	294	240	240	273	273	240	294

THE HIGHEST CONCENTRATION OF 1.00 PPM OCCURRED AT RECEPTOR REC1 .

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.AM 2030

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

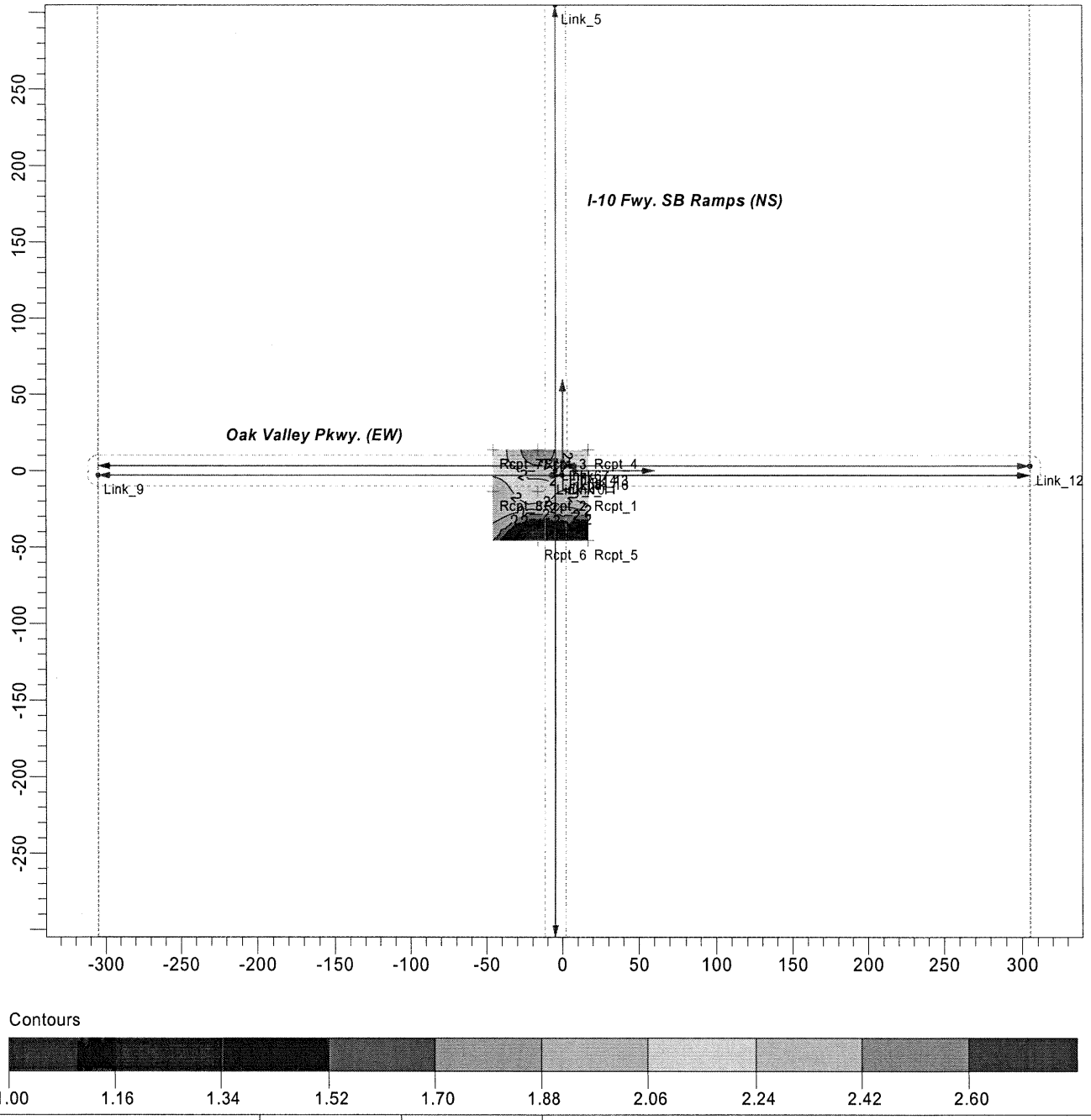
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	*	5.0	4.7	4.2	4.1	4.5	4.5	4.0	4.5
10.	*	4.9	4.8	4.3	4.0	4.4	4.5	4.1	4.6
20.	*	4.9	4.8	4.3	4.0	4.4	4.7	4.1	4.7
30.	*	4.9	4.8	4.3	4.0	4.4	4.6	4.1	4.8
40.	*	5.0	5.0	4.2	4.0	4.5	4.6	4.1	4.8
50.	*	5.0	5.1	4.2	4.0	4.5	4.7	4.1	4.8
60.	*	5.2	5.4	4.2	4.0	4.6	4.8	4.1	5.1
70.	*	5.5	5.5	4.2	4.0	4.6	4.8	4.1	5.1
80.	*	5.5	5.7	4.5	4.3	4.4	4.7	4.3	5.5
90.	*	4.9	5.1	5.2	5.0	4.1	4.4	5.1	5.0
100.	*	4.3	4.5	5.7	5.5	4.0	4.2	5.5	4.3
110.	*	4.0	4.2	5.6	5.4	4.0	4.2	5.1	4.1
120.	*	4.0	4.2	5.2	5.2	4.0	4.2	4.9	4.1
130.	*	4.0	4.2	5.1	5.1	4.0	4.2	4.8	4.1
140.	*	4.0	4.2	4.9	4.9	4.0	4.2	4.8	4.1
150.	*	4.0	4.2	5.0	4.9	4.0	4.2	4.7	4.1
160.	*	4.0	4.3	4.8	4.8	4.0	4.3	4.7	4.1
170.	*	4.0	4.3	4.9	4.8	4.0	4.3	4.7	4.1
180.	*	4.1	4.2	4.8	5.0	4.1	4.2	4.6	4.0
190.	*	4.2	4.0	4.7	5.0	4.2	4.0	4.6	4.0
200.	*	4.2	4.0	4.6	5.0	4.2	4.0	4.6	4.0
210.	*	4.2	4.0	4.6	5.1	4.2	4.0	4.6	4.0
220.	*	4.1	4.0	4.7	5.0	4.1	4.0	4.7	4.0
230.	*	4.1	4.0	4.7	5.0	4.1	4.0	4.7	4.0
240.	*	4.1	4.0	4.9	5.0	4.1	4.0	4.9	4.0
250.	*	4.1	4.0	4.9	5.1	4.1	4.0	4.9	4.0
260.	*	4.2	4.1	5.0	5.1	4.1	4.0	5.0	4.1
270.	*	4.7	4.6	4.6	4.8	4.2	4.0	4.6	4.6
280.	*	5.2	5.0	4.1	4.3	4.4	4.3	4.1	5.0
290.	*	5.1	5.0	4.0	4.1	4.5	4.4	4.0	5.0
300.	*	5.2	4.8	4.0	4.1	4.5	4.4	4.0	4.8
310.	*	5.1	4.7	4.0	4.1	4.5	4.4	4.0	4.7
320.	*	5.0	4.7	4.0	4.2	4.4	4.3	4.0	4.7
330.	*	5.0	4.7	4.0	4.2	4.5	4.3	4.0	4.7
340.	*	5.1	4.6	4.0	4.2	4.6	4.3	4.0	4.6
350.	*	5.0	4.6	4.1	4.2	4.6	4.3	4.0	4.5
360.	*	5.0	4.7	4.2	4.1	4.5	4.5	4.0	4.5
MAX	*	5.5	5.7	5.7	5.5	4.6	4.8	5.5	5.5
DEGR.	*	70	80	100	100	60	60	100	80

THE HIGHEST CONCENTRATION OF 5.70 PPM OCCURRED AT RECEPTOR REC2 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT 2030 CONDITIONS PM PEAK HOUR
I-10 Fwy. SB Ramps (NS). and Oak Valley Pkwy. (EW)



COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 7.50PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
	MAX: **2.60**	UNITS: **ppm**	MODELER: **H.Q.**	
	LINKS: **11**	RECEPTORS: **8**	0 100 m DATE: **10/27/2004**	URBAN CROSSROADS PROJECT / PLOT NO.: **JN: 02346**

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030

DATE : 10/18/ 4
TIME : 13:57:18

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
	*	X1	Y1	X2	Y2	*
LENGTH BRG TYPE VPH EF H W V/C QUEUE						
(M) (DEG) (G/MI) (M) (M) (VEH)						
1. SB Appr.	*	-4.7	305.0	-4.7	0.0	*
305. 180. AG 1520. 9.4 0.0 14.0						
2. SB Queue	*	-4.7	6.2	-4.7	21.2	*
15. 360. AG 0. 100.0 0.0 14.0 0.31 2.5						
3. SB Q.Left	*	0.0	6.2	0.0	1036.0	*
1030. 360. AG 0. 100.0 0.0 6.0 1.32 171.6						
4. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 605. 9.4 0.0 14.0						
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 1324. 9.4 0.0 14.0						
6. EB Queue	*	-7.8	-3.1	-1728.1	-3.1	*
1720. 270. AG 0. 100.0 0.0 14.0 1.63 286.7						
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 2523. 9.4 0.0 14.0						
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 2442. 9.4 0.0 14.0						
9. WB Queue	*	7.8	3.1	2415.3	3.1	*
2407. 90. AG 0. 100.0 0.0 14.0 1.68 401.2						
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 2158. 9.4 0.0 14.0						
11. WB Turn Q.	*	7.8	0.0	83.2	0.0	*
75. 90. AG 1. 100.0 0.0 6.0 0.91 12.6						

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030

DATE : 10/18/ 4
TIME : 13:57:18

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. SB Queue	*	120	28	12.0	321	1600	0.40	2	1
3. SB Q.Left	*	120	38	12.0	1199	1600	0.40	2	1
6. EB Queue	*	120	45	12.0	1324	1600	0.40	2	1
9. WB Queue	*	120	24	12.0	1837	1600	0.40	2	1
11. WB Turn Q.	*	120	56	12.0	605	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	1.4	1.1	0.4	0.2	0.7	0.6	0.1	0.8
5.	1.2	1.2	0.5	0.1	0.6	0.7	0.1	0.8
10.	1.2	1.2	0.5	0.1	0.6	0.9	0.2	0.9
15.	1.1	1.2	0.6	0.0	0.5	0.7	0.2	0.9
20.	1.1	1.1	0.5	0.0	0.5	0.8	0.2	0.9
25.	1.1	1.3	0.5	0.0	0.5	0.9	0.2	0.9
30.	1.2	1.2	0.5	0.0	0.5	0.7	0.2	1.0
35.	1.2	1.3	0.5	0.0	0.6	0.6	0.2	1.0
40.	1.2	1.2	0.4	0.0	0.6	0.7	0.2	1.0
45.	1.3	1.4	0.4	0.0	0.6	0.8	0.2	1.1
50.	1.4	1.2	0.4	0.0	0.6	0.8	0.2	1.1
55.	1.4	1.4	0.4	0.0	0.6	0.8	0.2	1.2
60.	1.5	1.4	0.4	0.0	0.6	0.8	0.2	1.1
65.	1.5	1.6	0.4	0.0	0.6	0.7	0.2	1.3
70.	1.7	1.6	0.5	0.1	0.6	0.7	0.2	1.4
75.	1.8	1.7	0.6	0.2	0.5	0.7	0.4	1.5
80.	1.6	1.6	0.8	0.4	0.4	0.6	0.6	1.5
85.	1.4	1.5	1.2	0.8	0.3	0.4	0.9	1.3
90.	1.1	1.2	1.4	1.1	0.2	0.3	1.2	1.2
95.	0.7	0.9	1.9	1.4	0.0	0.2	1.5	0.7
100.	0.4	0.5	2.1	1.6	0.0	0.1	1.7	0.4
105.	0.2	0.3	2.0	1.7	0.0	0.1	1.6	0.3
110.	0.1	0.2	1.8	1.7	0.0	0.1	1.5	0.1
115.	0.0	0.1	1.7	1.6	0.0	0.1	1.4	0.1
120.	0.0	0.2	1.7	1.5	0.0	0.2	1.3	0.1
125.	0.0	0.2	1.6	1.4	0.0	0.2	1.2	0.1
130.	0.0	0.2	1.4	1.4	0.0	0.2	1.1	0.1
135.	0.0	0.2	1.6	1.3	0.0	0.2	1.0	0.1
140.	0.0	0.2	1.3	1.2	0.0	0.2	1.0	0.1
145.	0.0	0.2	1.3	1.2	0.0	0.2	1.0	0.1
150.	0.0	0.2	1.1	1.2	0.0	0.2	1.0	0.1
155.	0.0	0.2	1.1	1.1	0.0	0.2	1.0	0.1
160.	0.0	0.2	1.0	1.1	0.0	0.2	0.9	0.1
165.	0.0	0.2	1.1	1.1	0.0	0.2	0.9	0.1
170.	0.0	0.2	1.0	1.1	0.0	0.2	0.9	0.1
175.	0.0	0.2	1.1	1.1	0.0	0.2	0.9	0.0
180.	0.1	0.1	1.0	1.2	0.1	0.1	0.9	0.0
185.	0.1	0.1	1.0	1.2	0.1	0.1	0.9	0.0
190.	0.1	0.1	0.9	1.2	0.1	0.1	0.8	0.0
195.	0.1	0.0	0.8	1.2	0.1	0.0	0.8	0.0
200.	0.1	0.0	0.8	1.2	0.1	0.0	0.8	0.0
205.	0.1	0.0	0.9	1.2	0.1	0.0	0.9	0.0

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.1	0.0	0.9	1.1	0.1	0.0	0.9	0.0
215.	0.1	0.0	0.9	1.3	0.1	0.0	0.9	0.0
220.	0.1	0.0	0.9	1.3	0.1	0.0	0.9	0.0
225.	0.1	0.0	0.9	1.3	0.1	0.0	0.9	0.0
230.	0.1	0.0	1.0	1.5	0.1	0.0	1.0	0.0
235.	0.1	0.0	1.0	1.4	0.1	0.0	1.0	0.0
240.	0.1	0.0	1.1	1.5	0.1	0.0	1.1	0.0
245.	0.1	0.0	1.1	1.5	0.1	0.0	1.1	0.0
250.	0.1	0.0	1.3	1.4	0.1	0.0	1.3	0.0
255.	0.3	0.1	1.3	1.6	0.1	0.0	1.3	0.1
260.	0.3	0.3	1.2	1.4	0.1	0.0	1.2	0.2
265.	0.5	0.5	1.1	1.4	0.1	0.0	1.0	0.4
270.	0.9	0.7	0.8	1.2	0.3	0.2	0.8	0.7
275.	1.1	1.0	0.5	0.8	0.3	0.2	0.5	1.0
280.	1.3	1.1	0.3	0.6	0.4	0.3	0.3	1.0
285.	1.4	1.2	0.1	0.4	0.5	0.4	0.1	1.1
290.	1.4	1.1	0.1	0.4	0.6	0.4	0.1	1.1
295.	1.5	1.1	0.0	0.3	0.6	0.5	0.0	1.1
300.	1.4	1.0	0.0	0.3	0.6	0.5	0.0	1.0
305.	1.5	0.9	0.0	0.3	0.5	0.4	0.0	0.9
310.	1.4	0.9	0.0	0.3	0.5	0.4	0.0	0.9
315.	1.4	0.9	0.0	0.3	0.5	0.4	0.0	0.9
320.	1.5	0.9	0.0	0.3	0.4	0.4	0.0	0.9
325.	1.4	0.9	0.0	0.3	0.5	0.3	0.0	0.9
330.	1.4	0.8	0.0	0.3	0.6	0.3	0.0	0.8
335.	1.4	0.7	0.0	0.3	0.7	0.3	0.0	0.7
340.	1.4	0.7	0.0	0.3	0.8	0.3	0.0	0.7
345.	1.4	0.8	0.1	0.3	0.7	0.4	0.0	0.7
350.	1.4	0.8	0.1	0.3	0.8	0.4	0.0	0.7
355.	1.4	1.0	0.2	0.3	0.6	0.5	0.0	0.7
360.	1.4	1.1	0.4	0.2	0.7	0.6	0.1	0.8
MAX	1.8	1.7	2.1	1.7	0.8	0.9	1.7	1.5
DEGR.	75	75	100	105	340	10	100	75

THE HIGHEST CONCENTRATION OF 2.10 PPM OCCURRED AT RECEPTOR REC3 .

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	1.4	1.4	0.4	0.2	0.8	0.8	0.1	1.0
3.	1.4	1.4	0.5	0.1	0.8	0.9	0.1	0.9
6.	1.3	1.3	0.6	0.1	0.7	1.0	0.1	0.9
9.	1.1	1.4	0.7	0.0	0.7	0.8	0.2	0.9
12.	1.1	1.4	0.7	0.0	0.6	1.0	0.2	0.9
15.	1.1	1.3	0.7	0.0	0.6	0.9	0.3	1.0
18.	1.1	1.3	0.7	0.0	0.6	0.8	0.3	1.1
21.	1.1	1.2	0.6	0.0	0.6	0.9	0.3	1.1
24.	1.2	1.2	0.6	0.0	0.6	0.9	0.3	1.1
27.	1.3	1.2	0.6	0.0	0.6	0.9	0.3	1.2
30.	1.3	1.4	0.5	0.0	0.6	0.9	0.3	1.2
33.	1.3	1.3	0.5	0.0	0.6	0.8	0.2	1.1
36.	1.3	1.4	0.5	0.0	0.6	0.8	0.2	1.1
39.	1.4	1.4	0.5	0.0	0.6	0.8	0.2	1.1
42.	1.4	1.3	0.5	0.0	0.6	0.8	0.2	1.1
45.	1.4	1.5	0.5	0.0	0.7	0.8	0.2	1.1
48.	1.4	1.3	0.4	0.0	0.7	0.9	0.2	1.1
51.	1.4	1.4	0.4	0.0	0.7	0.9	0.2	1.1
54.	1.5	1.5	0.4	0.0	0.7	0.9	0.2	1.2
57.	1.6	1.5	0.4	0.0	0.7	1.0	0.2	1.3
60.	1.7	1.6	0.4	0.0	0.8	1.0	0.2	1.4
63.	1.7	1.6	0.4	0.0	0.8	1.0	0.2	1.5
66.	1.8	1.7	0.4	0.0	0.8	1.0	0.2	1.5
69.	1.9	1.8	0.4	0.0	0.8	0.9	0.2	1.7
72.	2.0	2.0	0.4	0.0	0.8	0.9	0.2	1.7
75.	2.2	2.0	0.5	0.1	0.7	0.9	0.3	1.9
78.	2.2	2.2	0.7	0.2	0.7	0.8	0.4	2.0
81.	2.1	2.1	0.8	0.4	0.5	0.7	0.6	1.9
84.	1.9	2.0	1.0	0.6	0.4	0.6	0.9	1.9
87.	1.6	1.8	1.4	0.9	0.3	0.5	1.2	1.8
90.	1.3	1.5	1.7	1.3	0.2	0.4	1.5	1.4
93.	0.9	1.2	2.1	1.6	0.1	0.3	1.8	1.0
96.	0.6	0.7	2.4	1.9	0.0	0.1	2.2	0.8
99.	0.4	0.5	2.5	2.0	0.0	0.1	2.2	0.4
102.	0.3	0.4	2.6	2.1	0.0	0.1	2.1	0.3
105.	0.1	0.2	2.5	2.1	0.0	0.1	2.1	0.2
108.	0.0	0.1	2.4	2.1	0.0	0.1	1.9	0.1
111.	0.0	0.1	2.3	1.9	0.0	0.1	1.8	0.1
114.	0.0	0.2	2.1	1.8	0.0	0.2	1.8	0.1
117.	0.0	0.2	2.1	1.7	0.0	0.2	1.5	0.1
120.	0.0	0.2	2.0	1.6	0.0	0.2	1.4	0.1
123.	0.0	0.2	1.9	1.6	0.0	0.2	1.3	0.1

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
126.	0.0	0.2	1.7	1.6	0.0	0.2	1.2	0.1
129.	0.0	0.2	1.6	1.4	0.0	0.2	1.1	0.1
132.	0.0	0.2	1.7	1.4	0.0	0.2	1.1	0.1
135.	0.0	0.2	1.6	1.4	0.0	0.2	1.1	0.1
138.	0.0	0.2	1.5	1.4	0.0	0.2	1.1	0.1
141.	0.0	0.2	1.4	1.3	0.0	0.2	1.0	0.1
144.	0.0	0.2	1.3	1.3	0.0	0.2	1.0	0.1
147.	0.0	0.2	1.3	1.3	0.0	0.2	1.0	0.1
150.	0.0	0.2	1.3	1.3	0.0	0.2	1.0	0.1
153.	0.0	0.2	1.2	1.3	0.0	0.2	1.0	0.1
156.	0.0	0.2	1.2	1.2	0.0	0.2	1.0	0.1
159.	0.0	0.2	1.1	1.1	0.0	0.2	1.0	0.1
162.	0.0	0.3	1.1	1.1	0.0	0.3	0.9	0.1
165.	0.0	0.3	1.1	1.1	0.0	0.3	0.9	0.1
168.	0.0	0.3	1.1	1.1	0.0	0.3	0.9	0.1
171.	0.0	0.3	1.2	1.1	0.0	0.3	1.0	0.1
174.	0.0	0.2	1.2	1.1	0.0	0.2	1.0	0.1
177.	0.1	0.2	1.1	1.2	0.1	0.2	0.9	0.0
180.	0.1	0.2	1.1	1.2	0.1	0.2	0.9	0.0
183.	0.1	0.1	1.0	1.2	0.1	0.1	0.9	0.0
186.	0.1	0.1	1.0	1.2	0.1	0.1	0.9	0.0
189.	0.2	0.1	1.0	1.3	0.2	0.1	0.9	0.0
192.	0.2	0.0	0.8	1.3	0.2	0.0	0.8	0.0
195.	0.2	0.0	0.8	1.3	0.2	0.0	0.8	0.0
198.	0.2	0.0	0.8	1.3	0.2	0.0	0.8	0.0
201.	0.2	0.0	0.9	1.3	0.2	0.0	0.9	0.0
204.	0.2	0.0	0.9	1.3	0.2	0.0	0.9	0.0
207.	0.2	0.0	0.9	1.3	0.2	0.0	0.9	0.0
210.	0.1	0.0	0.9	1.3	0.1	0.0	0.9	0.0
213.	0.1	0.0	0.9	1.4	0.1	0.0	0.9	0.0
216.	0.1	0.0	0.9	1.4	0.1	0.0	0.9	0.0
219.	0.1	0.0	1.0	1.4	0.1	0.0	1.0	0.0
222.	0.1	0.0	1.0	1.4	0.1	0.0	1.0	0.0
225.	0.1	0.0	1.0	1.4	0.1	0.0	1.0	0.0
228.	0.1	0.0	1.0	1.5	0.1	0.0	1.0	0.0
231.	0.1	0.0	1.0	1.4	0.1	0.0	1.0	0.0
234.	0.1	0.0	1.1	1.5	0.1	0.0	1.1	0.0
237.	0.1	0.0	1.2	1.6	0.1	0.0	1.2	0.0
240.	0.1	0.0	1.2	1.5	0.1	0.0	1.2	0.0
243.	0.1	0.0	1.3	1.5	0.1	0.0	1.3	0.0
246.	0.1	0.0	1.3	1.7	0.1	0.0	1.3	0.0
249.	0.1	0.0	1.4	1.6	0.1	0.0	1.4	0.0
252.	0.1	0.0	1.5	1.8	0.1	0.0	1.4	0.0
255.	0.1	0.0	1.6	1.9	0.1	0.0	1.6	0.0
258.	0.3	0.1	1.6	1.9	0.1	0.0	1.6	0.1
261.	0.3	0.2	1.5	1.9	0.1	0.0	1.5	0.2
264.	0.5	0.4	1.4	1.8	0.1	0.0	1.4	0.4
267.	0.7	0.6	1.2	1.5	0.1	0.0	1.2	0.6
270.	0.9	0.8	1.0	1.3	0.3	0.2	0.9	0.8
273.	1.2	1.0	0.7	1.1	0.3	0.2	0.7	1.0
276.	1.5	1.2	0.5	0.8	0.4	0.2	0.5	1.2
279.	1.5	1.4	0.3	0.6	0.5	0.4	0.3	1.3

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
282.	1.7	1.5	0.1	0.4	0.6	0.5	0.1	1.4
285.	1.6	1.5	0.1	0.4	0.6	0.5	0.1	1.4
288.	1.6	1.3	0.0	0.3	0.6	0.5	0.0	1.3
291.	1.6	1.3	0.0	0.3	0.6	0.5	0.0	1.3
294.	1.7	1.3	0.0	0.3	0.6	0.5	0.0	1.3
297.	1.7	1.1	0.0	0.3	0.6	0.5	0.0	1.1
300.	1.6	1.1	0.0	0.3	0.6	0.5	0.0	1.1
303.	1.5	1.1	0.0	0.3	0.6	0.5	0.0	1.1
306.	1.7	1.1	0.0	0.3	0.6	0.5	0.0	1.1
309.	1.4	1.0	0.0	0.3	0.6	0.5	0.0	1.0
312.	1.5	0.9	0.0	0.3	0.6	0.5	0.0	0.9
315.	1.6	0.9	0.0	0.3	0.6	0.5	0.0	0.9
318.	1.7	0.9	0.0	0.3	0.6	0.5	0.0	0.9
321.	1.6	0.9	0.0	0.3	0.6	0.5	0.0	0.9
324.	1.6	0.9	0.0	0.3	0.7	0.5	0.0	0.9
327.	1.6	0.9	0.0	0.4	0.5	0.5	0.0	0.9
330.	1.7	0.9	0.0	0.4	0.6	0.5	0.0	0.9
333.	1.6	0.9	0.0	0.4	0.8	0.5	0.0	0.9
336.	1.6	0.8	0.0	0.4	0.8	0.4	0.0	0.8
339.	1.5	0.8	0.0	0.4	0.9	0.4	0.0	0.8
342.	1.5	0.8	0.0	0.4	0.9	0.4	0.0	0.8
345.	1.6	0.8	0.0	0.4	0.9	0.4	0.0	0.8
348.	1.5	0.8	0.1	0.4	1.0	0.5	0.0	0.7
351.	1.5	0.8	0.1	0.4	0.9	0.5	0.0	0.7
354.	1.6	0.9	0.2	0.4	0.9	0.6	0.0	0.7
357.	1.5	1.1	0.3	0.3	0.9	0.7	0.0	0.8
360.	1.4	1.4	0.4	0.2	0.8	0.8	0.1	1.0
MAX	2.2	2.2	2.6	2.1	1.0	1.0	2.2	2.0
DEGR.	75	78	102	102	348	12	96	78

THE HIGHEST CONCENTRATION OF 2.60 PPM OCCURRED AT RECEPTOR REC3 .

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

JOB: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030 RUN: I-10 FwySB Ramps/Oak Valley Pkwy.PM 2030

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

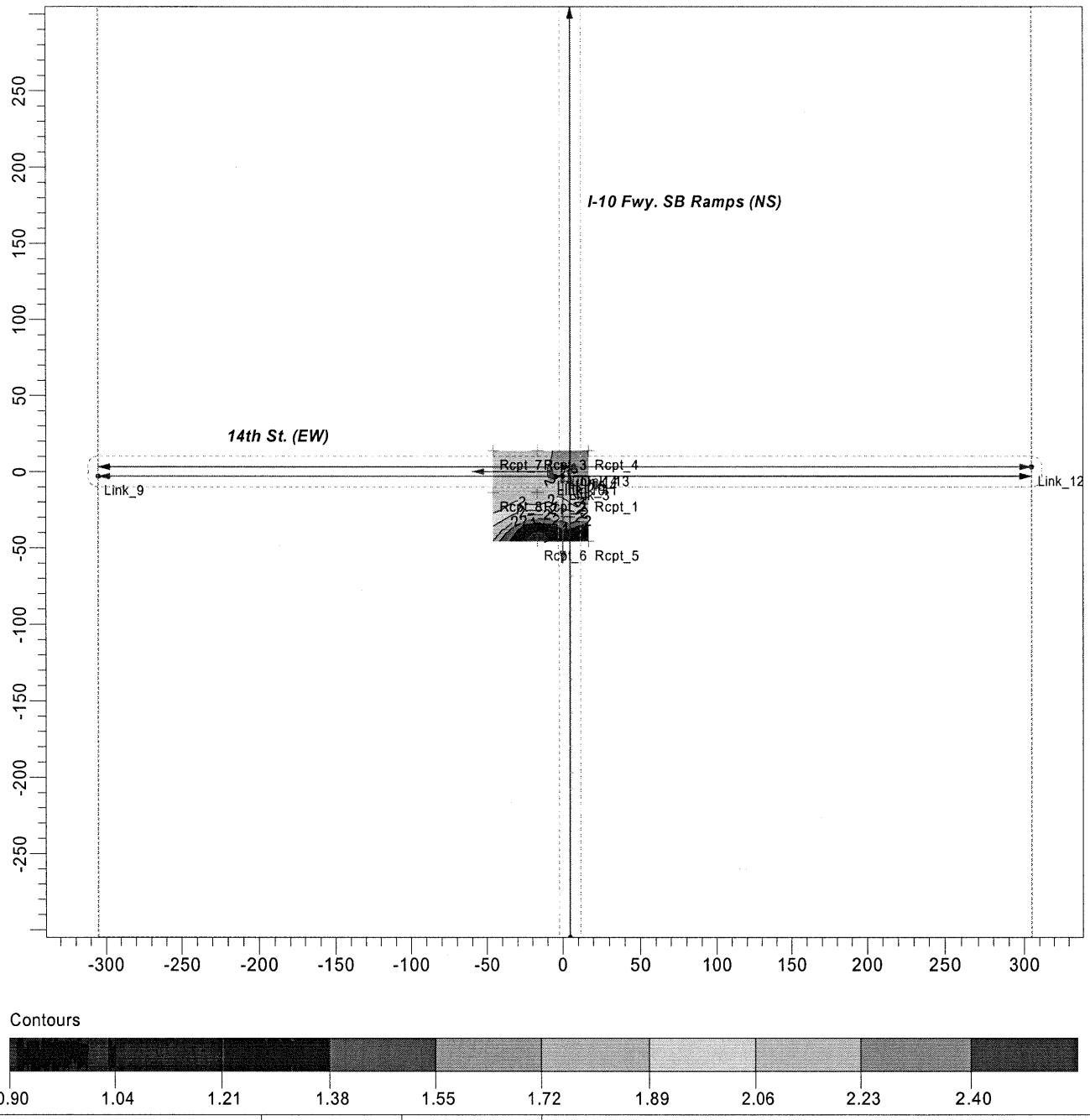
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	5.6	5.5	4.6	4.2	5.0	5.1	4.0	5.0
10.	5.2	5.8	5.0	4.0	4.7	5.3	4.3	5.2
20.	5.3	5.6	4.7	4.0	4.7	5.0	4.4	5.3
30.	5.3	5.4	4.6	4.0	4.8	4.8	4.3	5.3
40.	5.4	5.4	4.5	4.0	4.8	5.0	4.3	5.3
50.	5.6	5.4	4.5	4.0	4.9	5.1	4.3	5.4
60.	5.9	5.9	4.4	4.0	5.0	5.2	4.2	5.4
70.	6.3	6.4	4.4	4.0	5.2	5.4	4.2	6.0
80.	7.1	7.2	4.5	4.1	4.9	5.3	4.3	7.0
90.	5.7	6.0	6.3	5.7	4.1	4.3	6.1	6.0
100.	4.1	4.3	7.5	7.0	4.0	4.2	7.2	4.2
110.	4.0	4.2	6.7	6.3	4.0	4.2	6.1	4.1
120.	4.0	4.2	6.1	5.8	4.0	4.2	5.5	4.1
130.	4.0	4.2	5.8	5.6	4.0	4.2	5.3	4.1
140.	4.0	4.2	5.6	5.5	4.0	4.2	5.1	4.1
150.	4.0	4.2	5.3	5.3	4.0	4.2	5.0	4.1
160.	4.0	4.3	5.3	5.3	4.0	4.3	5.1	4.2
170.	4.0	4.4	5.3	5.2	4.0	4.4	5.0	4.1
180.	4.1	4.2	5.1	5.4	4.1	4.2	4.9	4.0
190.	4.3	4.0	4.9	5.5	4.3	4.0	4.9	4.0
200.	4.2	4.0	4.9	5.5	4.2	4.0	4.9	4.0
210.	4.2	4.0	4.9	5.5	4.2	4.0	4.9	4.0
220.	4.2	4.0	5.0	5.5	4.2	4.0	5.0	4.0
230.	4.1	4.0	5.2	5.6	4.1	4.0	5.2	4.0
240.	4.1	4.0	5.3	5.7	4.1	4.0	5.3	4.0
250.	4.1	4.0	5.6	6.0	4.1	4.0	5.6	4.0
260.	4.1	4.0	6.2	6.6	4.1	4.0	6.2	4.0
270.	5.3	5.1	5.3	5.6	4.1	4.0	5.2	5.1
280.	6.2	6.0	4.1	4.4	4.8	4.6	4.1	6.0
290.	5.8	5.6	4.0	4.3	4.9	4.8	4.0	5.6
300.	5.7	5.3	4.0	4.3	4.8	4.7	4.0	5.3
310.	5.7	5.1	4.0	4.3	4.7	4.6	4.0	5.1
320.	5.9	5.0	4.0	4.4	4.7	4.5	4.0	5.0
330.	5.7	5.0	4.0	4.5	4.7	4.5	4.0	5.0
340.	5.8	4.9	4.0	4.5	5.2	4.5	4.0	4.9
350.	5.9	4.8	4.0	4.7	5.4	4.5	4.0	4.8
360.	5.6	5.5	4.6	4.2	5.0	5.1	4.0	5.0
MAX	7.1	7.2	7.5	7.0	5.4	5.4	7.2	7.0
DEGR.	80	80	100	100	350	70	100	80

THE HIGHEST CONCENTRATION OF 7.50 PPM OCCURRED AT RECEPTOR REC3 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT 2030 CONDITIONS AM PEAK HOUR
I-10 Fwy. SB Ramps (NS). and 14th St. (EW)



COMMENTS:	MODEL:	POLLUTANT:	COMPANY NAME:	
THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 6.40PPM	**CAL3QHC**	**CO**	**Urban Crossroads Inc.**	
	MAX: **2.40**	UNITS: **ppm**	MODELER: **H.Q.**	URBAN CROSSROADS
	LINKS: **10**	RECEPTORS: **8**	0 100 m DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

DATE : 10/18/ 4
TIME : 14:10:27

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
	*	X1	Y1	X2	Y2	*
LENGTH BRG TYPE VPH EF H W V/C QUEUE						
(M) (DEG) (G/MI) (M) (M) (VEH)						
1. NB Appr.	*	4.7	-305.0	4.7	0.0	*
305. 360. AG 307. 9.4 0.0 14.0						
2. NB Q.Left	*	0.0	-6.2	0.0	-28.7	*
23. 180. AG 0. 100.0 0.0 6.0 0.37 3.8						
3. NB Dep.	*	4.7	0.0	4.7	305.0	*
305. 360. AG 278. 9.4 0.0 14.0						
4. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 1857. 9.4 0.0 14.0						
5. EB Queue	*	-7.8	-3.1	-1055.0	-3.1	*
1047. 270. AG 0. 100.0 0.0 14.0 1.25 174.5						
6. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 1579. 9.4 0.0 14.0						
7. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 1411. 9.4 0.0 14.0						
8. WB Queue	*	7.8	3.1	1312.6	3.1	*
1305. 90. AG 0. 100.0 0.0 14.0 1.38 217.5						
9. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 1718. 9.4 0.0 14.0						
10. EB Trn Q.	*	-7.8	0.0	-29.1	0.0	*
21. 270. AG 0. 100.0 0.0 6.0 0.33 3.6						

DATE : 10/18/ 4
TIME : 14:10:27

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Q.Left	*	120	44	12.0	307	1600	0.40	2	1
5. EB Queue	*	120	11	12.0	1579	1600	0.40	2	1
8. WB Queue	*	120	29	12.0	1411	1600	0.40	2	1
10. EB Trn Q.	*	120	46	8.0	278	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z	*
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8	*
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8	*
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8	*
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8	*
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8	*
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8	*
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8	*
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8	*

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	0.8	0.9	0.0	0.1	0.5	0.6	0.0	0.9
5.	0.7	1.0	0.1	0.0	0.4	0.6	0.0	0.9
10.	0.7	1.0	0.1	0.0	0.4	0.6	0.0	0.9
15.	0.7	1.0	0.1	0.0	0.4	0.6	0.1	1.0
20.	0.7	1.0	0.1	0.0	0.4	0.6	0.1	1.0
25.	0.7	1.0	0.1	0.0	0.4	0.6	0.1	1.0
30.	0.9	1.0	0.1	0.0	0.4	0.5	0.1	1.0
35.	0.9	1.2	0.1	0.0	0.5	0.6	0.0	1.0
40.	0.9	1.1	0.1	0.0	0.5	0.6	0.0	1.0
45.	0.9	1.3	0.1	0.0	0.5	0.6	0.0	1.1
50.	1.0	1.1	0.1	0.0	0.5	0.6	0.0	1.2
55.	1.0	1.1	0.1	0.0	0.6	0.7	0.0	1.2
60.	1.2	1.2	0.1	0.0	0.6	0.7	0.0	1.4
65.	1.3	1.4	0.1	0.0	0.7	0.8	0.0	1.5
70.	1.4	1.6	0.1	0.0	0.7	0.8	0.0	1.7
75.	1.7	1.9	0.1	0.0	0.7	0.8	0.0	1.8
80.	1.8	2.1	0.1	0.0	0.5	0.8	0.0	2.0
85.	1.7	1.9	0.4	0.3	0.3	0.4	0.3	1.9
90.	1.0	1.2	1.2	1.0	0.0	0.1	1.1	1.2
95.	0.4	0.5	1.8	1.7	0.0	0.1	1.8	0.4
100.	0.0	0.2	2.0	1.8	0.0	0.1	2.0	0.0
105.	0.0	0.1	1.8	1.7	0.0	0.1	1.8	0.0
110.	0.0	0.1	1.5	1.4	0.0	0.1	1.6	0.0
115.	0.0	0.1	1.3	1.3	0.0	0.1	1.6	0.0
120.	0.0	0.1	1.3	1.1	0.0	0.1	1.4	0.0
125.	0.0	0.1	1.1	1.0	0.0	0.1	1.2	0.0
130.	0.0	0.1	1.1	1.0	0.0	0.1	1.1	0.0
135.	0.0	0.1	1.2	0.9	0.0	0.1	1.2	0.1
140.	0.0	0.1	1.1	0.9	0.0	0.1	1.2	0.1
145.	0.0	0.1	1.1	0.8	0.0	0.1	1.1	0.1
150.	0.0	0.1	1.0	0.8	0.0	0.1	1.1	0.1
155.	0.0	0.1	1.0	0.8	0.0	0.1	1.1	0.1
160.	0.0	0.1	1.0	0.8	0.0	0.1	1.0	0.1
165.	0.0	0.1	1.0	0.8	0.0	0.1	1.0	0.1
170.	0.0	0.1	1.0	0.7	0.0	0.1	1.0	0.0
175.	0.0	0.1	1.0	0.8	0.0	0.1	0.9	0.0
180.	0.1	0.0	1.0	0.9	0.1	0.0	0.9	0.0
185.	0.2	0.0	0.9	1.0	0.2	0.0	0.9	0.0
190.	0.2	0.0	0.9	0.9	0.2	0.0	0.9	0.0
195.	0.2	0.0	0.9	1.0	0.2	0.0	0.9	0.0
200.	0.2	0.0	0.9	0.9	0.1	0.0	0.9	0.0
205.	0.1	0.0	1.0	0.9	0.1	0.0	1.0	0.0

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.1	0.0	1.0	0.9	0.1	0.0	1.0	0.0
215.	0.1	0.0	1.0	1.0	0.1	0.0	1.0	0.0
220.	0.1	0.0	1.1	0.9	0.1	0.0	1.1	0.0
225.	0.1	0.0	1.1	1.0	0.1	0.0	1.1	0.0
230.	0.1	0.0	1.1	1.2	0.1	0.0	1.1	0.0
235.	0.1	0.0	1.3	1.3	0.1	0.0	1.3	0.0
240.	0.1	0.0	1.3	1.4	0.1	0.0	1.3	0.0
245.	0.1	0.0	1.5	1.5	0.1	0.0	1.5	0.0
250.	0.1	0.0	1.7	1.7	0.1	0.0	1.7	0.0
255.	0.1	0.0	2.0	2.0	0.1	0.0	2.0	0.0
260.	0.2	0.1	2.2	2.4	0.1	0.0	2.1	0.1
265.	0.5	0.4	2.0	2.2	0.1	0.0	2.0	0.4
270.	1.4	1.2	1.2	1.4	0.2	0.0	1.1	1.2
275.	2.2	2.1	0.4	0.5	0.4	0.3	0.4	1.9
280.	2.4	2.2	0.1	0.2	0.8	0.7	0.0	2.2
285.	2.0	2.0	0.0	0.1	1.0	0.9	0.0	2.0
290.	1.7	1.7	0.0	0.1	1.0	0.9	0.0	1.7
295.	1.6	1.5	0.0	0.1	0.9	0.8	0.0	1.5
300.	1.3	1.4	0.0	0.1	0.8	0.7	0.0	1.4
305.	1.3	1.2	0.0	0.1	0.8	0.7	0.0	1.2
310.	1.2	1.2	0.0	0.1	0.7	0.6	0.0	1.2
315.	1.1	1.1	0.0	0.1	0.7	0.6	0.0	1.1
320.	1.0	1.0	0.0	0.1	0.7	0.6	0.0	1.0
325.	1.0	1.0	0.0	0.1	0.7	0.6	0.0	1.0
330.	0.9	0.9	0.0	0.1	0.6	0.6	0.0	0.9
335.	0.8	0.9	0.0	0.1	0.6	0.5	0.0	0.9
340.	0.8	0.9	0.0	0.1	0.5	0.5	0.0	0.9
345.	0.9	0.9	0.0	0.2	0.7	0.5	0.0	0.9
350.	0.9	0.9	0.0	0.2	0.6	0.5	0.0	0.9
355.	0.9	0.9	0.0	0.2	0.6	0.5	0.0	0.9
360.	0.8	0.9	0.0	0.1	0.5	0.6	0.0	0.9
MAX	2.4	2.2	2.2	2.4	1.0	0.9	2.1	2.2
DEGR.	280	280	260	260	285	285	260	280

THE HIGHEST CONCENTRATION OF 2.40 PPM OCCURRED AT RECEPTOR REC4 .

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.1	0.0	1.1	1.2	0.1	0.0	1.1	0.0
243.	0.1	0.0	1.1	1.1	0.1	0.0	1.1	0.0
246.	0.1	0.0	1.2	1.1	0.1	0.0	1.2	0.0
249.	0.1	0.0	1.2	1.2	0.1	0.0	1.2	0.0
252.	0.2	0.1	1.2	1.3	0.1	0.0	1.2	0.1
255.	0.2	0.1	1.2	1.2	0.1	0.0	1.2	0.1
258.	0.4	0.3	1.2	1.3	0.1	0.0	1.2	0.3
261.	0.4	0.3	1.2	1.3	0.1	0.0	1.2	0.3
264.	0.6	0.5	1.0	1.1	0.1	0.0	1.0	0.4
267.	0.7	0.6	1.0	1.0	0.2	0.0	0.9	0.6
270.	0.9	0.8	0.8	0.8	0.3	0.2	0.8	0.8
273.	1.0	0.9	0.6	0.7	0.3	0.2	0.6	0.9
276.	1.2	1.1	0.5	0.6	0.3	0.2	0.5	1.1
279.	1.2	1.1	0.3	0.4	0.4	0.3	0.3	1.1
282.	1.3	1.3	0.3	0.3	0.5	0.4	0.2	1.2
285.	1.4	1.3	0.1	0.2	0.5	0.4	0.1	1.3
288.	1.3	1.3	0.1	0.2	0.5	0.4	0.1	1.3
291.	1.2	1.2	0.0	0.1	0.5	0.4	0.0	1.2
294.	1.1	1.2	0.0	0.1	0.5	0.4	0.0	1.1
297.	1.3	1.1	0.0	0.1	0.5	0.4	0.0	1.1
300.	1.1	1.1	0.0	0.1	0.5	0.4	0.0	1.1
MAX	1.4	1.3	1.2	1.3	0.5	0.4	1.2	1.3
DEGR.	285	282	246	258	282	282	246	285

THE HIGHEST CONCENTRATION OF 1.40 PPM OCCURRED AT RECEPTOR REC1 .

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

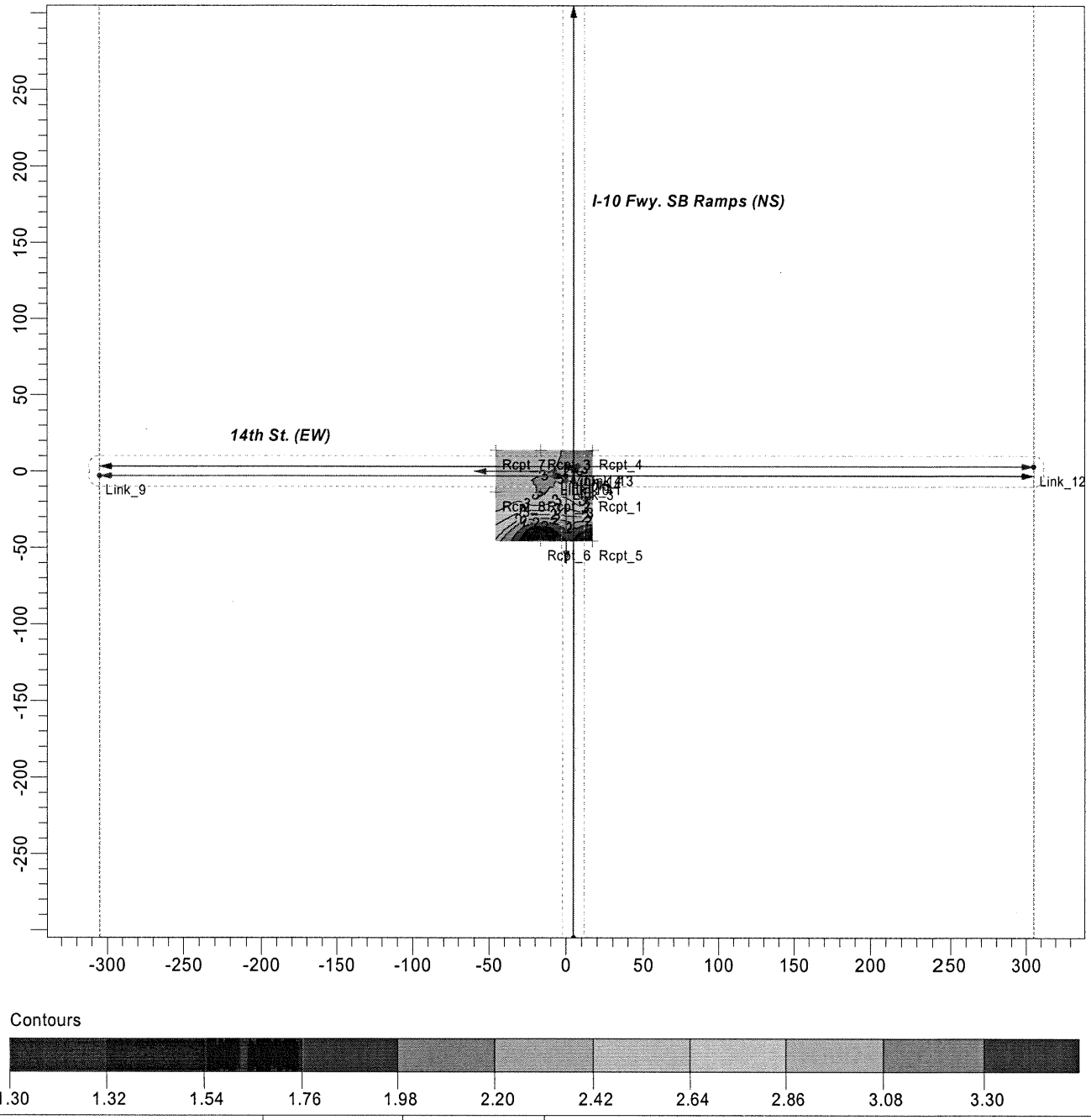
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	4.8	4.9	4.0	4.1	4.5	4.6	4.0	4.9
10.	4.7	5.0	4.1	4.0	4.4	4.6	4.0	4.9
20.	4.7	5.0	4.1	4.0	4.4	4.6	4.1	5.0
30.	4.9	5.0	4.1	4.0	4.4	4.5	4.1	5.0
40.	4.9	5.1	4.1	4.0	4.5	4.6	4.0	5.0
50.	5.0	5.1	4.1	4.0	4.5	4.6	4.0	5.2
60.	5.2	5.2	4.1	4.0	4.6	4.7	4.0	5.4
70.	5.4	5.6	4.1	4.0	4.7	4.8	4.0	5.7
80.	5.8	6.1	4.1	4.0	4.5	4.8	4.0	6.0
90.	5.0	5.2	5.2	5.0	4.0	4.1	5.1	5.2
100.	4.0	4.2	6.0	5.8	4.0	4.1	6.0	4.0
110.	4.0	4.1	5.5	5.4	4.0	4.1	5.6	4.0
120.	4.0	4.1	5.3	5.1	4.0	4.1	5.4	4.0
130.	4.0	4.1	5.1	5.0	4.0	4.1	5.1	4.0
140.	4.0	4.1	5.1	4.9	4.0	4.1	5.2	4.1
150.	4.0	4.1	5.0	4.8	4.0	4.1	5.1	4.1
160.	4.0	4.1	5.0	4.8	4.0	4.1	5.0	4.1
170.	4.0	4.1	5.0	4.7	4.0	4.1	5.0	4.0
180.	4.1	4.0	5.0	4.9	4.1	4.0	4.9	4.0
190.	4.2	4.0	4.9	4.9	4.2	4.0	4.9	4.0
200.	4.2	4.0	4.9	4.9	4.1	4.0	4.9	4.0
210.	4.1	4.0	5.0	4.9	4.1	4.0	5.0	4.0
220.	4.1	4.0	5.1	4.9	4.1	4.0	5.1	4.0
230.	4.1	4.0	5.1	5.2	4.1	4.0	5.1	4.0
240.	4.1	4.0	5.3	5.4	4.1	4.0	5.3	4.0
250.	4.1	4.0	5.7	5.7	4.1	4.0	5.7	4.0
260.	4.2	4.1	6.2	6.4	4.1	4.0	6.1	4.1
270.	5.4	5.2	5.2	5.4	4.2	4.0	5.1	5.2
280.	6.4	6.2	4.1	4.2	4.8	4.7	4.0	6.2
290.	5.7	5.7	4.0	4.1	5.0	4.9	4.0	5.7
300.	5.3	5.4	4.0	4.1	4.8	4.7	4.0	5.4
310.	5.2	5.2	4.0	4.1	4.7	4.6	4.0	5.2
320.	5.0	5.0	4.0	4.1	4.7	4.6	4.0	5.0
330.	4.9	4.9	4.0	4.1	4.6	4.6	4.0	4.9
340.	4.8	4.9	4.0	4.1	4.5	4.5	4.0	4.9
350.	4.9	4.9	4.0	4.2	4.6	4.5	4.0	4.9
360.	4.8	4.9	4.0	4.1	4.5	4.6	4.0	4.9
MAX	6.4	6.2	6.2	6.4	5.0	4.9	6.1	6.2
DEGR.	280	280	260	260	290	290	260	280

THE HIGHEST CONCENTRATION OF 6.40 PPM OCCURRED AT RECEPTOR REC4 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT 2030 CONDITIONS PM PEAK HOUR
I-10 Fwy. SB Ramps (NS). and 14th St. (EW)



COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 7.30PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
			MODELER: **H.Q.**	URBAN CROSSROADS
	MAX: **3.30**	UNITS: **ppm**	0 100 m	
	LINKS: **10**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

DATE : 10/18/ 4
TIME : 14:14:19

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
LENGTH BRG TYPE VPH EF	H W V/C QUEUE					
	*	X1	Y1	X2	Y2	*
(M) (DEG) (G/MI)	(M) (M) (VEH)					
1. NB Appr.	*	4.7	-305.0	4.7	0.0	*
305. 360. AG 646. 9.4	0.0 14.0					
2. NB Q.Left	*	0.0	-6.2	0.0	-102.9	*
97. 180. AG 1. 100.0	0.0 6.0 0.97 16.1					
3. NB Dep.	*	4.7	0.0	4.7	305.0	*
305. 360. AG 250. 9.4	0.0 14.0					
4. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 2522. 9.4	0.0 14.0					
5. EB Queue	*	-7.8	-3.1	-3943.2	-3.1	*
3935. 270. AG 0. 100.0	0.0 14.0 2.19 655.9					
6. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 2272. 9.4	0.0 14.0					
7. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 1794. 9.4	0.0 14.0					
8. WB Queue	*	7.8	3.1	3250.8	3.1	*
3243. 90. AG 0. 100.0	0.0 14.0 2.25 540.5					
9. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 2440. 9.4	0.0 14.0					
10. EB Trn Q.	*	-7.8	0.0	-148.5	0.0	*
141. 270. AG 1. 100.0	0.0 6.0 1.11 23.5					

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

DATE : 10/18/ 4
TIME : 14:14:19

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Q.Left	*	120	56	12.0	646	1600	0.40	2	1
5. EB Queue	*	120	28	12.0	2272	1600	0.40	2	1
8. WB Queue	*	120	46	12.0	1794	1600	0.40	2	1
10. EB Trn Q.	*	120	89	12.0	250	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	1.1	1.3	0.0	0.1	0.6	0.7	0.0	1.3
5.	1.0	1.3	0.1	0.0	0.6	0.8	0.0	1.2
10.	1.0	1.3	0.1	0.0	0.6	0.8	0.0	1.2
15.	1.0	1.3	0.1	0.0	0.5	0.8	0.1	1.3
20.	1.0	1.4	0.1	0.0	0.5	0.8	0.1	1.4
25.	1.0	1.4	0.1	0.0	0.6	0.7	0.1	1.4
30.	1.2	1.4	0.1	0.0	0.7	0.7	0.0	1.3
35.	1.2	1.6	0.1	0.0	0.7	0.9	0.0	1.4
40.	1.2	1.6	0.1	0.0	0.7	0.9	0.0	1.4
45.	1.3	1.6	0.1	0.0	0.7	0.9	0.0	1.6
50.	1.3	1.5	0.1	0.0	0.7	0.8	0.0	1.6
55.	1.4	1.6	0.1	0.0	0.8	0.9	0.0	1.7
60.	1.6	1.7	0.1	0.0	0.9	1.0	0.0	1.8
65.	1.8	1.9	0.1	0.0	0.9	1.0	0.0	2.1
70.	1.9	2.0	0.1	0.0	1.0	1.1	0.0	2.3
75.	2.3	2.4	0.1	0.0	1.0	1.1	0.0	2.4
80.	2.5	2.8	0.2	0.1	0.8	0.9	0.1	2.8
85.	2.4	2.5	0.6	0.4	0.3	0.5	0.5	2.7
90.	1.4	1.7	1.6	1.3	0.0	0.2	1.6	1.8
95.	0.5	0.6	2.5	2.2	0.0	0.1	2.5	0.6
100.	0.1	0.2	2.6	2.5	0.0	0.1	2.7	0.2
105.	0.0	0.1	2.4	2.2	0.0	0.1	2.5	0.1
110.	0.0	0.1	2.0	1.9	0.0	0.1	2.4	0.1
115.	0.0	0.1	1.7	1.7	0.0	0.1	2.2	0.1
120.	0.0	0.1	1.8	1.5	0.0	0.1	2.0	0.1
125.	0.0	0.1	1.7	1.4	0.0	0.1	1.7	0.1
130.	0.0	0.1	1.7	1.3	0.0	0.1	1.7	0.1
135.	0.0	0.2	1.6	1.2	0.0	0.2	1.6	0.1
140.	0.0	0.2	1.6	1.2	0.0	0.2	1.6	0.1
145.	0.0	0.2	1.6	1.2	0.0	0.2	1.6	0.1
150.	0.0	0.2	1.5	1.1	0.0	0.2	1.4	0.1
155.	0.0	0.2	1.5	1.1	0.0	0.2	1.4	0.1
160.	0.0	0.2	1.5	1.0	0.0	0.2	1.4	0.1
165.	0.0	0.3	1.5	1.0	0.0	0.3	1.4	0.1
170.	0.0	0.3	1.5	1.0	0.0	0.3	1.3	0.1
175.	0.1	0.2	1.5	1.1	0.1	0.2	1.3	0.0
180.	0.3	0.1	1.4	1.3	0.2	0.1	1.3	0.0
185.	0.4	0.0	1.3	1.4	0.4	0.0	1.3	0.0
190.	0.4	0.0	1.2	1.4	0.4	0.0	1.2	0.0
195.	0.4	0.0	1.2	1.4	0.4	0.0	1.2	0.0
200.	0.3	0.0	1.3	1.3	0.3	0.0	1.3	0.0
205.	0.3	0.0	1.3	1.2	0.3	0.0	1.3	0.0

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.3	0.0	1.3	1.2	0.3	0.0	1.3	0.0
215.	0.2	0.0	1.5	1.2	0.2	0.0	1.5	0.0
220.	0.2	0.0	1.5	1.3	0.2	0.0	1.5	0.0
225.	0.2	0.0	1.5	1.4	0.2	0.0	1.5	0.0
230.	0.2	0.0	1.6	1.5	0.2	0.0	1.6	0.0
235.	0.2	0.0	1.7	1.8	0.2	0.0	1.7	0.0
240.	0.2	0.0	1.8	1.8	0.2	0.0	1.8	0.0
245.	0.2	0.0	2.1	2.0	0.2	0.0	2.1	0.0
250.	0.2	0.0	2.3	2.3	0.2	0.0	2.3	0.0
255.	0.2	0.0	2.7	2.8	0.2	0.0	2.7	0.0
260.	0.3	0.1	3.0	3.2	0.2	0.0	3.0	0.1
265.	0.8	0.6	2.8	3.0	0.2	0.0	2.7	0.5
270.	2.0	1.7	1.7	1.9	0.3	0.1	1.5	1.6
275.	3.2	2.9	0.6	0.7	0.7	0.4	0.5	2.7
280.	3.3	3.1	0.1	0.2	1.3	0.9	0.1	3.0
285.	3.0	2.8	0.0	0.1	1.5	1.3	0.0	2.8
290.	2.5	2.3	0.0	0.1	1.4	1.2	0.0	2.3
295.	2.2	2.1	0.0	0.1	1.3	1.1	0.0	2.1
300.	2.1	1.9	0.0	0.1	1.2	1.0	0.0	1.9
305.	1.9	1.7	0.0	0.1	1.1	0.9	0.0	1.7
310.	1.6	1.6	0.0	0.1	1.1	0.9	0.0	1.6
315.	1.5	1.6	0.0	0.1	1.0	0.8	0.0	1.6
320.	1.4	1.4	0.0	0.1	1.0	0.8	0.0	1.4
325.	1.4	1.4	0.0	0.1	1.0	0.8	0.0	1.4
330.	1.3	1.3	0.0	0.1	0.8	0.8	0.0	1.3
335.	1.2	1.3	0.0	0.1	1.0	0.7	0.0	1.3
340.	1.1	1.3	0.0	0.1	0.9	0.7	0.0	1.3
345.	1.1	1.2	0.0	0.1	1.0	0.7	0.0	1.2
350.	1.2	1.2	0.0	0.2	0.7	0.7	0.0	1.2
355.	1.2	1.2	0.0	0.2	0.7	0.7	0.0	1.2
360.	1.1	1.3	0.0	0.1	0.6	0.7	0.0	1.3
MAX	3.3	3.1	3.0	3.2	1.5	1.3	3.0	3.0
DEGR.	280	280	260	260	285	285	260	280

THE HIGHEST CONCENTRATION OF 3.30 PPM OCCURRED AT RECEPTOR REC1 .

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.2	0.0	1.5	1.4	0.2	0.0	1.5	0.0
243.	0.2	0.0	1.5	1.5	0.2	0.0	1.5	0.0
246.	0.2	0.0	1.6	1.7	0.2	0.0	1.6	0.0
249.	0.3	0.1	1.7	1.5	0.2	0.0	1.7	0.1
252.	0.3	0.1	1.7	1.7	0.2	0.0	1.7	0.1
255.	0.4	0.2	1.7	1.8	0.2	0.0	1.7	0.2
258.	0.5	0.3	1.7	1.8	0.2	0.0	1.7	0.3
261.	0.7	0.5	1.6	1.6	0.2	0.0	1.5	0.4
264.	0.8	0.6	1.5	1.6	0.2	0.0	1.5	0.6
267.	1.0	0.9	1.3	1.4	0.4	0.1	1.3	0.9
270.	1.3	1.1	1.1	1.1	0.4	0.2	1.1	1.1
273.	1.5	1.3	0.8	0.9	0.5	0.2	0.8	1.3
276.	1.7	1.5	0.6	0.7	0.6	0.3	0.6	1.4
279.	1.8	1.6	0.5	0.6	0.6	0.4	0.4	1.6
282.	1.7	1.6	0.3	0.4	0.7	0.5	0.3	1.6
285.	1.8	1.7	0.2	0.3	0.7	0.5	0.2	1.7
288.	1.7	1.7	0.1	0.2	0.8	0.6	0.1	1.7
291.	1.6	1.7	0.1	0.1	0.8	0.6	0.1	1.6
294.	1.8	1.6	0.0	0.1	0.8	0.6	0.0	1.6
297.	1.6	1.5	0.0	0.1	0.8	0.6	0.0	1.5
300.	1.5	1.5	0.0	0.1	0.8	0.6	0.0	1.5
MAX	1.8	1.7	1.7	1.8	0.8	0.6	1.7	1.7
DEGR.	279	285	249	255	288	288	249	285

THE HIGHEST CONCENTRATION OF 1.80 PPM OCCURRED AT RECEPTOR REC1 .

JOB: I-10 FwySB Ramps/14th St. AM 2030 RUN: I-10 FwySB Ramps/14th St. AM 2030

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

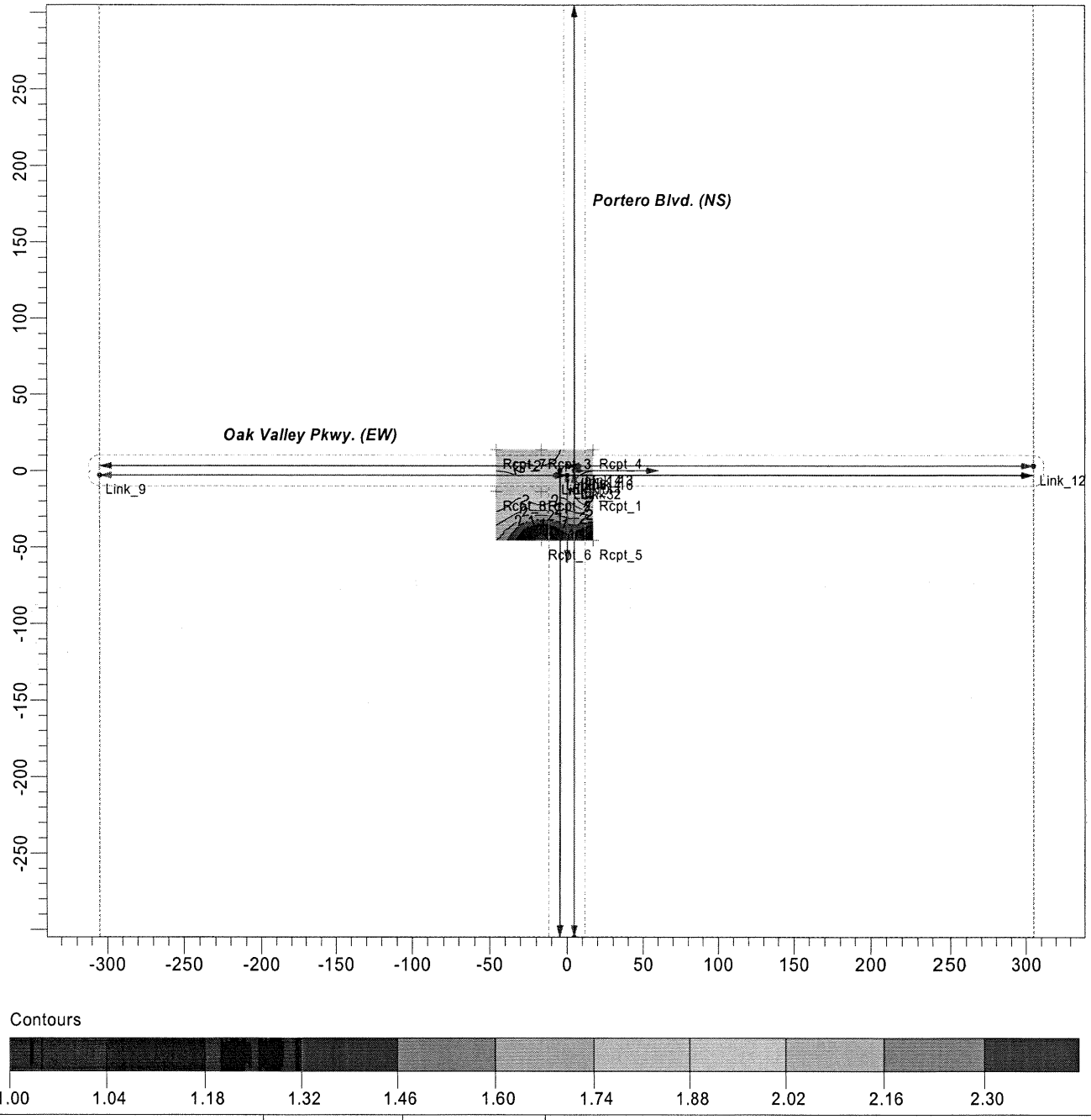
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	5.1	5.3	4.0	4.1	4.6	4.7	4.0	5.3
10.	5.0	5.3	4.1	4.0	4.6	4.8	4.0	5.2
20.	5.0	5.4	4.1	4.0	4.5	4.8	4.1	5.4
30.	5.2	5.4	4.1	4.0	4.7	4.7	4.0	5.3
40.	5.2	5.6	4.1	4.0	4.7	4.9	4.0	5.4
50.	5.3	5.5	4.1	4.0	4.7	4.8	4.0	5.6
60.	5.6	5.7	4.1	4.0	4.9	5.0	4.0	5.8
70.	5.9	6.0	4.1	4.0	5.0	5.1	4.0	6.3
80.	6.5	6.8	4.2	4.1	4.8	4.9	4.1	6.8
90.	5.4	5.7	5.6	5.3	4.0	4.2	5.6	5.8
100.	4.1	4.2	6.6	6.5	4.0	4.1	6.7	4.2
110.	4.0	4.1	6.0	5.9	4.0	4.1	6.4	4.1
120.	4.0	4.1	5.8	5.5	4.0	4.1	6.0	4.1
130.	4.0	4.1	5.7	5.3	4.0	4.1	5.7	4.1
140.	4.0	4.2	5.6	5.2	4.0	4.2	5.6	4.1
150.	4.0	4.2	5.5	5.1	4.0	4.2	5.4	4.1
160.	4.0	4.2	5.5	5.0	4.0	4.2	5.4	4.1
170.	4.0	4.3	5.5	5.0	4.0	4.3	5.3	4.1
180.	4.3	4.1	5.4	5.3	4.2	4.1	5.3	4.0
190.	4.4	4.0	5.2	5.4	4.4	4.0	5.2	4.0
200.	4.3	4.0	5.3	5.3	4.3	4.0	5.3	4.0
210.	4.3	4.0	5.3	5.2	4.3	4.0	5.3	4.0
220.	4.2	4.0	5.5	5.3	4.2	4.0	5.5	4.0
230.	4.2	4.0	5.6	5.5	4.2	4.0	5.6	4.0
240.	4.2	4.0	5.8	5.8	4.2	4.0	5.8	4.0
250.	4.2	4.0	6.3	6.3	4.2	4.0	6.3	4.0
260.	4.3	4.1	7.0	7.2	4.2	4.0	7.0	4.1
270.	6.0	5.7	5.7	5.9	4.3	4.1	5.5	5.6
280.	7.3	7.1	4.1	4.2	5.3	4.9	4.1	7.0
290.	6.5	6.3	4.0	4.1	5.4	5.2	4.0	6.3
300.	6.1	5.9	4.0	4.1	5.2	5.0	4.0	5.9
310.	5.6	5.6	4.0	4.1	5.1	4.9	4.0	5.6
320.	5.4	5.4	4.0	4.1	5.0	4.8	4.0	5.4
330.	5.3	5.3	4.0	4.1	4.8	4.8	4.0	5.3
340.	5.1	5.3	4.0	4.1	4.9	4.7	4.0	5.3
350.	5.2	5.2	4.0	4.2	4.7	4.7	4.0	5.2
360.	5.1	5.3	4.0	4.1	4.6	4.7	4.0	5.3
MAX	7.3	7.1	7.0	7.2	5.4	5.2	7.0	7.0
DEGR.	280	280	260	260	290	290	260	280

THE HIGHEST CONCENTRATION OF 7.30 PPM OCCURRED AT RECEPTOR REC1 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT 2030 CONDITIONS AM PEAK HOUR
Portero Blvd. (NS). and Oak Valley Pkwy (EW)



Contours

1.00 1.04 1.18 1.32 1.46 1.60 1.74 1.88 2.02 2.16 2.30

COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 5.30PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
	MAX: **2.30**	UNITS: **ppm**	MODELER: **H.Q.**	0 100 m
	LINKS: **12**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

URBAN CROSSROADS

JOB: Portero / Oak Valley 2030 AM RUN: Portero / Oak Valley 2030 AM

DATE : 10/18/ 4
TIME : 15:11:17

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
	*	X1	Y1	X2	Y2	*
LENGTH BRG TYPE VPH EF H W V/C QUEUE						
(M) (DEG) (G/MI) (M) (M) (VEH)						
1. NB Appr.	*	4.7	-305.0	4.7	0.0	*
305. 360. AG 517. 9.4 0.0 14.0						
2. NB Que	*	4.7	-6.2	4.7	-33.1	*
27. 180. AG 0. 100.0 0.0 14.0 0.58 4.5						
3. NB Q.Left	*	0.0	-6.2	0.0	-12.7	*
7. 180. AG 0. 100.0 0.0 6.0 0.15 1.1						
4. NB Dep.	*	4.7	0.0	4.7	305.0	*
305. 360. AG 605. 9.4 0.0 14.0						
5. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 901. 9.4 0.0 14.0						
6. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 1732. 9.4 0.0 14.0						
7. EB Queue	*	-7.8	-3.1	-59.5	-3.1	*
52. 270. AG 0. 100.0 0.0 14.0 0.85 8.6						
8. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 1448. 9.4 0.0 14.0						
9. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 1039. 9.4 0.0 14.0						
10. WB Queue	*	7.8	3.1	20.2	3.1	*
12. 90. AG 0. 100.0 0.0 14.0 0.58 2.1						
11. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 1223. 9.4 0.0 14.0						
12. WB Turn Q.	*	7.8	0.0	33.5	0.0	*
26. 90. AG 0. 100.0 0.0 6.0 0.41 4.3						

JOB: Portero / Oak Valley 2030 AM RUN: Portero / Oak Valley 2030 AM

DATE : 10/18/ 4
TIME : 15:11:17

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Que	*	85	38	8.0	405	1600	0.40	2	1
3. NB Q.Left	*	85	35	8.0	112	1600	0.40	2	1
7. EB Queue	*	120	32	12.0	841	1600	0.40	2	1
10. WB Queue	*	120	10	12.0	742	1600	0.40	2	1
12. WB Turn Q.	*	120	52	12.0	297	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

JOB: Portero / Oak Valley 2030 AM RUN:
Portero / Oak Valley 2030 AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	*	0.8	0.9	0.1	0.2	0.5	0.6	0.0	0.8
5.	*	0.7	1.0	0.2	0.1	0.4	0.8	0.0	0.8
10.	*	0.6	1.1	0.3	0.0	0.3	0.9	0.1	0.9
15.	*	0.6	1.1	0.3	0.0	0.3	0.8	0.1	0.9
20.	*	0.6	1.0	0.2	0.0	0.3	1.0	0.1	0.9
25.	*	0.7	1.1	0.2	0.0	0.3	0.9	0.1	0.9
30.	*	0.7	1.1	0.2	0.0	0.4	0.8	0.1	0.9
35.	*	0.8	1.1	0.2	0.0	0.4	0.8	0.1	0.9
40.	*	0.8	1.1	0.2	0.0	0.5	0.9	0.1	1.0
45.	*	0.8	1.2	0.1	0.0	0.4	0.8	0.1	1.0
50.	*	0.8	1.2	0.1	0.0	0.5	0.9	0.1	1.0
55.	*	0.9	1.3	0.1	0.0	0.5	0.9	0.1	1.2
60.	*	0.9	1.3	0.1	0.0	0.5	0.9	0.1	1.2
65.	*	1.1	1.4	0.1	0.0	0.5	0.8	0.1	1.4
70.	*	1.2	1.5	0.1	0.0	0.6	0.9	0.1	1.7
75.	*	1.4	1.7	0.1	0.0	0.6	1.0	0.1	1.8
80.	*	1.5	2.0	0.1	0.0	0.5	0.8	0.1	2.0
85.	*	1.5	1.8	0.4	0.3	0.2	0.6	0.4	1.8
90.	*	0.9	1.3	1.0	0.8	0.0	0.3	1.1	1.2
95.	*	0.3	0.7	1.5	1.3	0.0	0.3	1.6	0.5
100.	*	0.0	0.3	1.6	1.5	0.0	0.3	1.7	0.2
105.	*	0.0	0.3	1.5	1.4	0.0	0.3	1.5	0.2
110.	*	0.0	0.3	1.3	1.2	0.0	0.3	1.4	0.2
115.	*	0.0	0.3	1.1	1.0	0.0	0.3	1.4	0.2
120.	*	0.0	0.4	1.1	0.9	0.0	0.4	1.3	0.2
125.	*	0.0	0.4	1.1	0.8	0.0	0.4	1.3	0.3
130.	*	0.0	0.4	1.1	0.8	0.0	0.4	1.2	0.3
135.	*	0.0	0.4	1.2	0.8	0.0	0.4	1.2	0.3
140.	*	0.0	0.4	1.0	0.7	0.0	0.4	1.1	0.3
145.	*	0.0	0.4	1.2	0.7	0.0	0.4	1.1	0.3
150.	*	0.0	0.6	1.3	0.7	0.0	0.6	1.1	0.3
155.	*	0.0	0.6	1.2	0.7	0.0	0.6	1.0	0.3
160.	*	0.0	0.6	1.3	0.6	0.0	0.6	1.0	0.3
165.	*	0.0	0.7	1.4	0.6	0.0	0.7	1.1	0.3
170.	*	0.0	0.8	1.5	0.6	0.0	0.8	1.0	0.3
175.	*	0.1	0.8	1.5	0.7	0.1	0.7	0.8	0.1
180.	*	0.3	0.4	1.2	1.0	0.3	0.4	0.7	0.0
185.	*	0.6	0.1	0.8	1.2	0.6	0.1	0.7	0.0
190.	*	0.7	0.0	0.7	1.3	0.7	0.0	0.7	0.0
195.	*	0.7	0.0	0.7	1.3	0.7	0.0	0.7	0.0
200.	*	0.6	0.0	0.7	1.1	0.6	0.0	0.7	0.0
205.	*	0.5	0.0	0.7	1.1	0.5	0.0	0.7	0.0

JOB: Portero / Oak Valley 2030 AM RUN: Portero / Oak Valley 2030 AM

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.5	0.0	0.8	1.1	0.5	0.0	0.8	0.0
215.	0.4	0.0	0.8	1.1	0.4	0.0	0.8	0.0
220.	0.4	0.0	0.8	1.1	0.4	0.0	0.8	0.0
225.	0.4	0.0	0.9	1.2	0.4	0.0	0.9	0.0
230.	0.4	0.0	0.9	1.1	0.4	0.0	0.9	0.0
235.	0.4	0.0	1.0	1.3	0.4	0.0	1.0	0.0
240.	0.3	0.0	1.1	1.4	0.3	0.0	1.1	0.0
245.	0.3	0.0	1.2	1.4	0.3	0.0	1.2	0.0
250.	0.3	0.0	1.4	1.5	0.3	0.0	1.4	0.0
255.	0.3	0.0	1.6	1.8	0.3	0.0	1.6	0.0
260.	0.4	0.1	1.8	1.9	0.3	0.0	1.8	0.0
265.	0.7	0.4	1.7	1.9	0.3	0.0	1.5	0.4
270.	1.4	1.1	1.0	1.2	0.4	0.0	0.9	1.0
275.	2.1	1.7	0.3	0.5	0.6	0.3	0.3	1.7
280.	2.3	1.8	0.0	0.2	0.9	0.6	0.0	1.8
285.	1.9	1.7	0.0	0.2	1.1	0.8	0.0	1.7
290.	1.7	1.4	0.0	0.2	1.0	0.7	0.0	1.4
295.	1.5	1.2	0.0	0.2	1.0	0.7	0.0	1.2
300.	1.3	1.1	0.0	0.2	0.9	0.6	0.0	1.1
305.	1.3	1.1	0.0	0.2	0.9	0.5	0.0	1.1
310.	1.1	1.0	0.0	0.2	0.9	0.5	0.0	1.0
315.	1.1	0.9	0.0	0.2	0.9	0.5	0.0	0.9
320.	0.9	0.9	0.0	0.2	0.9	0.5	0.0	0.9
325.	0.9	0.8	0.0	0.2	0.9	0.5	0.0	0.8
330.	0.9	0.8	0.0	0.2	0.8	0.5	0.0	0.8
335.	0.8	0.8	0.0	0.3	0.8	0.5	0.0	0.8
340.	0.9	0.8	0.0	0.3	0.8	0.5	0.0	0.8
345.	0.9	0.8	0.0	0.3	0.7	0.5	0.0	0.8
350.	1.0	0.8	0.0	0.4	0.7	0.5	0.0	0.8
355.	1.0	0.8	0.0	0.4	0.7	0.5	0.0	0.8
360.	0.8	0.9	0.1	0.2	0.5	0.6	0.0	0.8
MAX	2.3	2.0	1.8	1.9	1.1	1.0	1.8	2.0
DEGR.	280	80	260	260	285	20	260	80

THE HIGHEST CONCENTRATION OF 2.30 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Portero / Oak Valley 2030 AM RUN: Portero / Oak Valley 2030 AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.3	0.0	0.8	1.0	0.3	0.0	0.8	0.0
243.	0.3	0.0	0.8	1.1	0.3	0.0	0.8	0.0
246.	0.3	0.0	1.0	1.0	0.3	0.0	1.0	0.0
249.	0.3	0.0	1.0	0.9	0.3	0.0	1.0	0.0
252.	0.4	0.1	1.0	1.1	0.3	0.0	1.0	0.1
255.	0.4	0.1	1.0	1.1	0.3	0.0	1.0	0.1
258.	0.4	0.2	1.0	1.1	0.3	0.0	1.0	0.1
261.	0.6	0.3	0.9	1.0	0.3	0.0	0.9	0.3
264.	0.7	0.4	0.8	1.0	0.3	0.0	0.8	0.4
267.	0.9	0.6	0.7	0.9	0.4	0.0	0.7	0.5
270.	1.0	0.7	0.6	0.7	0.4	0.1	0.6	0.7
273.	1.0	0.8	0.5	0.6	0.5	0.2	0.5	0.7
276.	1.2	0.9	0.4	0.5	0.5	0.2	0.3	0.9
279.	1.2	1.0	0.3	0.4	0.6	0.3	0.3	1.0
282.	1.2	1.0	0.2	0.3	0.6	0.3	0.2	1.0
285.	1.2	1.0	0.1	0.2	0.6	0.3	0.1	1.0
288.	1.2	1.0	0.0	0.1	0.6	0.3	0.0	1.0
291.	1.1	1.0	0.0	0.1	0.6	0.3	0.0	1.0
294.	1.1	1.0	0.0	0.1	0.6	0.3	0.0	1.0
297.	1.0	0.9	0.0	0.1	0.6	0.3	0.0	0.9
300.	1.1	0.9	0.0	0.2	0.6	0.3	0.0	0.9
MAX	1.2	1.0	1.0	1.1	0.6	0.3	1.0	1.0
DEGR.	276	279	246	243	279	279	246	279

THE HIGHEST CONCENTRATION OF 1.20 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Portero / Oak Valley 2030 AM RUN: Portero / Oak Valley 2030 AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 3.0 PPM

JOB: Portero / Oak Valley 2030 AM RUN: Portero / Oak Valley 2030 AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

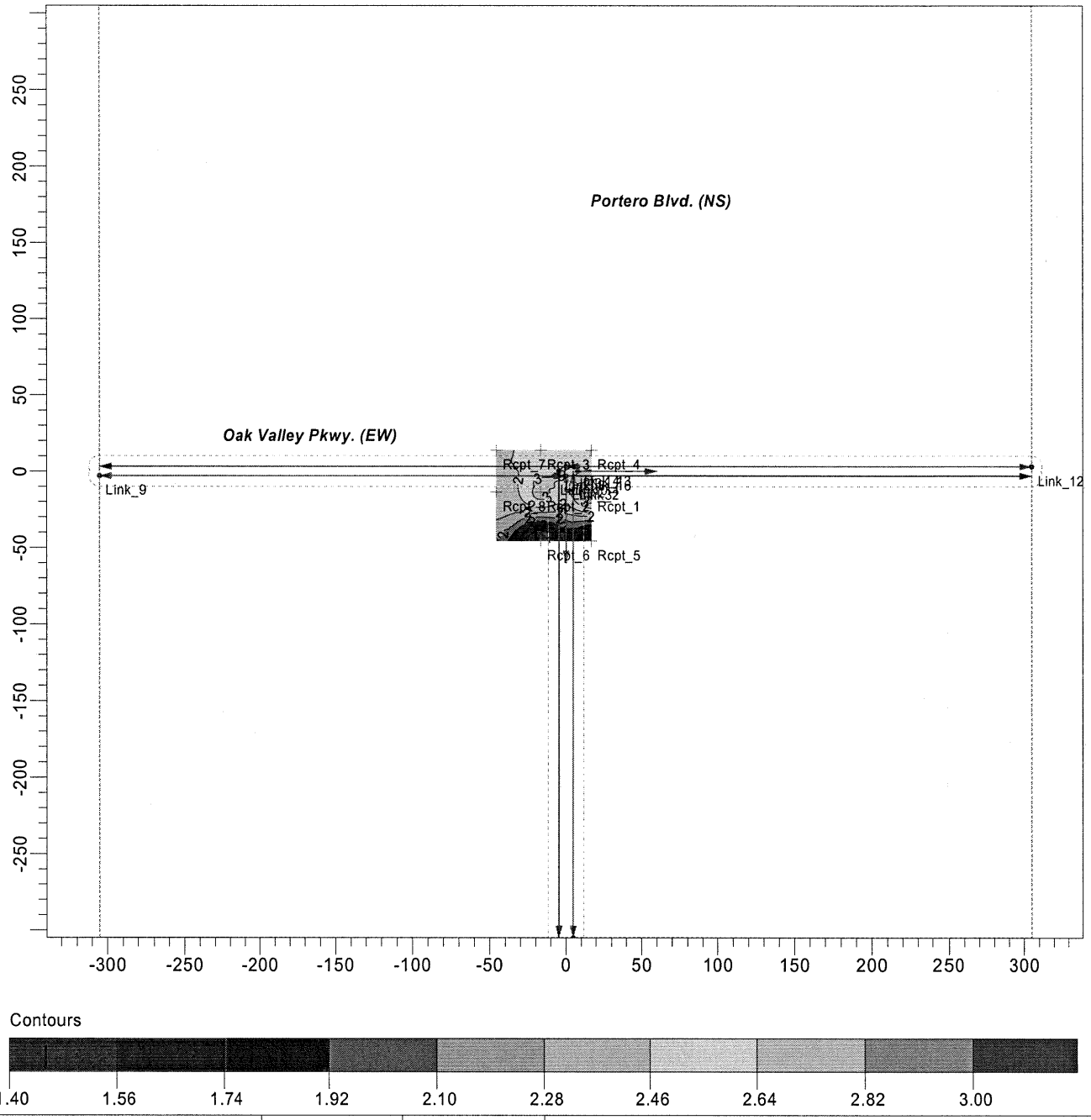
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	3.8	3.9	3.1	3.2	3.5	3.6	3.0	3.8
10.	3.6	4.1	3.3	3.0	3.3	3.9	3.1	3.9
20.	3.6	4.0	3.2	3.0	3.3	4.0	3.1	3.9
30.	3.7	4.1	3.2	3.0	3.4	3.8	3.1	3.9
40.	3.8	4.1	3.2	3.0	3.5	3.9	3.1	4.0
50.	3.8	4.2	3.1	3.0	3.5	3.9	3.1	4.0
60.	3.9	4.3	3.1	3.0	3.5	3.9	3.1	4.2
70.	4.2	4.5	3.1	3.0	3.6	3.9	3.1	4.7
80.	4.5	5.0	3.1	3.0	3.5	3.8	3.1	5.0
90.	3.9	4.3	4.0	3.8	3.0	3.3	4.1	4.2
100.	3.0	3.3	4.6	4.5	3.0	3.3	4.7	3.2
110.	3.0	3.3	4.3	4.2	3.0	3.3	4.4	3.2
120.	3.0	3.4	4.1	3.9	3.0	3.4	4.3	3.2
130.	3.0	3.4	4.1	3.8	3.0	3.4	4.2	3.3
140.	3.0	3.4	4.0	3.7	3.0	3.4	4.1	3.3
150.	3.0	3.6	4.3	3.7	3.0	3.6	4.1	3.3
160.	3.0	3.6	4.3	3.6	3.0	3.6	4.0	3.3
170.	3.0	3.8	4.5	3.6	3.0	3.8	4.0	3.3
180.	3.3	3.4	4.2	4.0	3.3	3.4	3.7	3.0
190.	3.7	3.0	3.7	4.3	3.7	3.0	3.7	3.0
200.	3.6	3.0	3.7	4.1	3.6	3.0	3.7	3.0
210.	3.5	3.0	3.8	4.1	3.5	3.0	3.8	3.0
220.	3.4	3.0	3.8	4.1	3.4	3.0	3.8	3.0
230.	3.4	3.0	3.9	4.1	3.4	3.0	3.9	3.0
240.	3.3	3.0	4.1	4.4	3.3	3.0	4.1	3.0
250.	3.3	3.0	4.4	4.5	3.3	3.0	4.4	3.0
260.	3.4	3.1	4.8	4.9	3.3	3.0	4.8	3.0
270.	4.4	4.1	4.0	4.2	3.4	3.0	3.9	4.0
280.	5.3	4.8	3.0	3.2	3.9	3.6	3.0	4.8
290.	4.7	4.4	3.0	3.2	4.0	3.7	3.0	4.4
300.	4.3	4.1	3.0	3.2	3.9	3.6	3.0	4.1
310.	4.1	4.0	3.0	3.2	3.9	3.5	3.0	4.0
320.	3.9	3.9	3.0	3.2	3.9	3.5	3.0	3.9
330.	3.9	3.8	3.0	3.2	3.8	3.5	3.0	3.8
340.	3.9	3.8	3.0	3.3	3.8	3.5	3.0	3.8
350.	4.0	3.8	3.0	3.4	3.7	3.5	3.0	3.8
360.	3.8	3.9	3.1	3.2	3.5	3.6	3.0	3.8
MAX	5.3	5.0	4.8	4.9	4.0	4.0	4.8	5.0
DEGR.	280	80	260	260	290	20	260	80

THE HIGHEST CONCENTRATION OF 5.30 PPM OCCURRED AT RECEPTOR REC1 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT 2030 CONDITIONS PM PEAK HOUR
Portero Blvd. (NS). and Oak Valley Pkwy (EW)



COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 6.00PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
			MODELER: **H.Q.**	URBAN CROSSROADS
	MAX: **3.00**	UNITS: **ppm**	0 100 m	
	LINKS: **11**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: Portero / Oak Valley 2030 PM RUN: Portero / Oak Valley 2030 PM

DATE : 10/18/ 4
TIME : 15:41:58

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
LENGTH BRG TYPE VPH EF	H W V/C QUEUE					
	*	X1	Y1	X2	Y2	*
(M) (DEG) (G/MI)	(M) (M) (VEH)					
1. NB Appr.	*	4.7	-305.0	4.7	0.0	*
305. 360. AG 1258. 9.4	0.0 14.0					
2. NB Que	*	4.7	-6.2	4.7	-60.6	*
54. 180. AG 1. 100.0	0.0 14.0 0.81 9.1					
3. NB Q.Left	*	0.0	-6.2	0.0	-104.8	*
99. 180. AG 0. 100.0	0.0 6.0 0.97 16.4					
4. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 1171. 9.4	0.0 14.0					
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 1863. 9.4	0.0 14.0					
6. EB Queue	*	-7.8	-3.1	-3644.0	-3.1	*
3636. 270. AG 0. 100.0	0.0 14.0 2.50 606.0					
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 1575. 9.4	0.0 14.0					
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 1717. 9.4	0.0 14.0					
9. WB Queue	*	7.8	3.1	294.8	3.1	*
287. 90. AG 0. 100.0	0.0 14.0 1.05 47.8					
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 2092. 9.4	0.0 14.0					
11. WB Turn Q.	*	7.8	0.0	67.4	0.0	*
60. 90. AG 1. 100.0	0.0 6.0 0.85 9.9					

JOB: Portero / Oak Valley 2030 PM RUN: Portero / Oak Valley 2030 PM

DATE : 10/18/ 4
TIME : 15:41:58

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Que	*	120	65	12.0	442	1600	0.40	2	1
3. NB Q.Left	*	120	43	12.0	816	1600	0.40	2	1
6. EB Queue	*	120	50	12.0	1863	1600	0.40	2	1
9. WB Queue	*	120	15	12.0	1276	1600	0.40	2	1
11. WB Turn Q.	*	120	67	12.0	441	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

JOB: Portero / Oak Valley 2030 PM RUN: Portero / Oak Valley 2030 PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	0.8	1.0	0.0	0.0	0.4	0.6	0.0	1.0
5.	0.8	1.0	0.0	0.0	0.4	0.7	0.0	1.0
10.	0.8	1.0	0.0	0.0	0.4	0.8	0.0	1.0
15.	0.8	1.0	0.0	0.0	0.4	0.9	0.0	1.0
20.	0.8	1.1	0.0	0.0	0.4	1.0	0.0	1.0
25.	0.8	1.1	0.0	0.0	0.4	1.3	0.0	1.0
30.	0.9	1.1	0.0	0.0	0.5	1.1	0.0	1.0
35.	0.9	1.4	0.0	0.0	0.6	1.3	0.0	1.1
40.	0.9	1.3	0.0	0.0	0.6	1.3	0.0	1.1
45.	1.0	1.5	0.0	0.0	0.6	1.3	0.0	1.2
50.	1.1	1.5	0.0	0.0	0.6	1.3	0.0	1.3
55.	1.1	1.6	0.0	0.0	0.6	1.3	0.0	1.3
60.	1.3	1.8	0.0	0.0	0.6	1.2	0.0	1.5
65.	1.3	1.9	0.0	0.0	0.8	1.4	0.0	1.7
70.	1.5	2.2	0.0	0.0	0.8	1.4	0.0	1.9
75.	1.8	2.5	0.0	0.0	0.8	1.4	0.0	2.2
80.	2.0	2.7	0.1	0.1	0.6	1.3	0.1	2.4
85.	1.9	2.5	0.4	0.4	0.3	0.9	0.4	2.4
90.	1.1	1.7	1.2	1.2	0.0	0.6	1.2	1.7
95.	0.4	1.0	1.9	1.9	0.0	0.6	2.0	0.8
100.	0.0	0.6	2.1	2.0	0.0	0.6	2.3	0.4
105.	0.0	0.6	1.9	1.9	0.0	0.6	2.2	0.4
110.	0.0	0.6	1.6	1.5	0.0	0.6	2.0	0.4
115.	0.0	0.6	1.5	1.4	0.0	0.6	2.0	0.4
120.	0.0	0.6	1.6	1.2	0.0	0.6	2.0	0.4
125.	0.0	0.7	1.5	1.2	0.0	0.7	1.7	0.4
130.	0.0	0.7	1.6	1.1	0.0	0.7	1.7	0.4
135.	0.0	0.7	1.6	1.0	0.0	0.7	1.6	0.4
140.	0.0	0.7	1.6	1.0	0.0	0.7	1.6	0.4
145.	0.0	0.7	1.7	0.9	0.0	0.7	1.6	0.4
150.	0.0	0.9	1.7	0.9	0.0	0.9	1.6	0.5
155.	0.0	0.9	1.8	0.9	0.0	0.9	1.7	0.6
160.	0.0	1.1	2.0	0.9	0.0	1.1	1.6	0.6
165.	0.0	1.2	2.2	0.9	0.0	1.2	1.6	0.6
170.	0.0	1.3	2.3	0.8	0.0	1.3	1.4	0.5
175.	0.2	1.1	2.3	1.1	0.1	1.1	1.2	0.2
180.	0.7	0.7	1.7	1.6	0.7	0.6	1.0	0.0
185.	1.2	0.2	1.2	2.1	1.2	0.1	1.0	0.0
190.	1.3	0.0	0.9	2.1	1.3	0.0	0.9	0.0
195.	1.2	0.0	1.0	2.1	1.2	0.0	1.0	0.0
200.	1.0	0.0	1.0	1.9	1.0	0.0	1.0	0.0
205.	1.0	0.0	1.1	1.8	1.0	0.0	1.1	0.0

JOB: Portero / Oak Valley 2030 PM RUN: Portero / Oak Valley 2030 PM

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.8	0.0	1.1	1.6	0.8	0.0	1.1	0.0
215.	0.8	0.0	1.2	1.6	0.8	0.0	1.2	0.0
220.	0.7	0.0	1.2	1.5	0.7	0.0	1.2	0.0
225.	0.7	0.0	1.2	1.3	0.7	0.0	1.2	0.0
230.	0.7	0.0	1.3	1.5	0.7	0.0	1.3	0.0
235.	0.7	0.0	1.4	1.3	0.7	0.0	1.4	0.0
240.	0.7	0.0	1.5	1.6	0.7	0.0	1.5	0.0
245.	0.6	0.0	1.7	1.6	0.6	0.0	1.7	0.0
250.	0.6	0.0	1.9	1.7	0.6	0.0	1.9	0.0
255.	0.5	0.0	2.2	2.1	0.5	0.0	2.2	0.0
260.	0.6	0.1	2.5	2.5	0.5	0.0	2.4	0.1
265.	0.9	0.4	2.3	2.4	0.5	0.0	2.2	0.4
270.	1.9	1.3	1.3	1.5	0.6	0.0	1.3	1.2
275.	2.8	2.2	0.4	0.5	0.9	0.3	0.4	2.2
280.	3.0	2.4	0.1	0.1	1.3	0.7	0.1	2.4
285.	2.6	2.2	0.0	0.0	1.5	1.0	0.0	2.2
290.	2.2	1.9	0.0	0.0	1.6	1.0	0.0	1.9
295.	2.1	1.7	0.0	0.0	1.5	0.9	0.0	1.7
300.	1.9	1.5	0.0	0.0	1.5	0.8	0.0	1.5
305.	1.7	1.3	0.0	0.0	1.5	0.8	0.0	1.3
310.	1.6	1.3	0.0	0.0	1.4	0.7	0.0	1.3
315.	1.5	1.2	0.0	0.0	1.3	0.6	0.0	1.2
320.	1.2	1.1	0.0	0.0	1.3	0.6	0.0	1.1
325.	1.2	1.1	0.0	0.0	1.4	0.6	0.0	1.1
330.	1.0	1.0	0.0	0.0	1.4	0.6	0.0	1.0
335.	0.9	1.0	0.0	0.0	1.2	0.6	0.0	1.0
340.	0.9	1.0	0.0	0.0	1.1	0.6	0.0	1.0
345.	0.8	1.0	0.0	0.0	1.0	0.6	0.0	1.0
350.	0.8	1.0	0.0	0.0	0.6	0.6	0.0	1.0
355.	0.8	1.0	0.0	0.0	0.5	0.6	0.0	1.0
360.	0.8	1.0	0.0	0.0	0.4	0.6	0.0	1.0
MAX	3.0	2.7	2.5	2.5	1.6	1.4	2.4	2.4
DEGR.	280	80	260	260	290	65	260	85

THE HIGHEST CONCENTRATION OF 3.00 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Portero / Oak Valley 2030 PM RUN: Portero / Oak Valley 2030 PM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.5	0.0	1.2	1.3	0.5	0.0	1.2	0.0
243.	0.5	0.0	1.3	1.3	0.5	0.0	1.3	0.0
246.	0.5	0.0	1.3	1.3	0.5	0.0	1.3	0.0
249.	0.5	0.0	1.3	1.2	0.5	0.0	1.3	0.0
252.	0.6	0.1	1.4	1.3	0.5	0.0	1.4	0.1
255.	0.6	0.1	1.4	1.4	0.5	0.0	1.4	0.1
258.	0.8	0.3	1.4	1.3	0.5	0.0	1.3	0.3
261.	0.8	0.3	1.3	1.3	0.5	0.0	1.3	0.3
264.	1.0	0.5	1.2	1.2	0.5	0.0	1.1	0.5
267.	1.2	0.7	1.1	1.1	0.6	0.0	1.1	0.6
270.	1.4	0.8	0.9	0.8	0.7	0.2	0.9	0.8
273.	1.6	1.0	0.7	0.7	0.7	0.2	0.7	1.0
276.	1.7	1.2	0.6	0.6	0.7	0.2	0.6	1.2
279.	1.7	1.2	0.4	0.4	0.9	0.4	0.4	1.2
282.	1.8	1.4	0.3	0.3	0.9	0.4	0.3	1.3
285.	1.9	1.4	0.1	0.1	0.9	0.4	0.1	1.4
288.	1.8	1.4	0.1	0.1	0.9	0.4	0.1	1.4
291.	1.7	1.3	0.0	0.0	0.9	0.4	0.0	1.3
294.	1.5	1.2	0.0	0.0	1.0	0.4	0.0	1.2
297.	1.7	1.2	0.0	0.0	1.0	0.4	0.0	1.2
300.	1.5	1.2	0.0	0.0	0.9	0.4	0.0	1.2
MAX	1.9	1.4	1.4	1.4	1.0	0.4	1.4	1.4
DEGR.	285	282	252	255	294	279	252	285

THE HIGHEST CONCENTRATION OF 1.90 PPM OCCURRED AT RECEPTOR REC1 .

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 3.0 PPM

JOB: Portero / Oak Valley 2030 PM RUN: Portero / Oak Valley 2030 PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	3.8	4.0	3.0	3.0	3.4	3.6	3.0	4.0
10.	3.8	4.0	3.0	3.0	3.4	3.8	3.0	4.0
20.	3.8	4.1	3.0	3.0	3.4	4.0	3.0	4.0
30.	3.9	4.1	3.0	3.0	3.5	4.1	3.0	4.0
40.	3.9	4.3	3.0	3.0	3.6	4.3	3.0	4.1
50.	4.1	4.5	3.0	3.0	3.6	4.3	3.0	4.3
60.	4.3	4.8	3.0	3.0	3.6	4.2	3.0	4.5
70.	4.5	5.2	3.0	3.0	3.8	4.4	3.0	4.9
80.	5.0	5.7	3.1	3.1	3.6	4.3	3.1	5.4
90.	4.1	4.7	4.2	4.2	3.0	3.6	4.2	4.7
100.	3.0	3.6	5.1	5.0	3.0	3.6	5.3	3.4
110.	3.0	3.6	4.6	4.5	3.0	3.6	5.0	3.4
120.	3.0	3.6	4.6	4.2	3.0	3.6	5.0	3.4
130.	3.0	3.7	4.6	4.1	3.0	3.7	4.7	3.4
140.	3.0	3.7	4.6	4.0	3.0	3.7	4.6	3.4
150.	3.0	3.9	4.7	3.9	3.0	3.9	4.6	3.5
160.	3.0	4.1	5.0	3.9	3.0	4.1	4.6	3.6
170.	3.0	4.3	5.3	3.8	3.0	4.3	4.4	3.5
180.	3.7	3.7	4.7	4.6	3.7	3.6	4.0	3.0
190.	4.3	3.0	3.9	5.1	4.3	3.0	3.9	3.0
200.	4.0	3.0	4.0	4.9	4.0	3.0	4.0	3.0
210.	3.8	3.0	4.1	4.6	3.8	3.0	4.1	3.0
220.	3.7	3.0	4.2	4.5	3.7	3.0	4.2	3.0
230.	3.7	3.0	4.3	4.5	3.7	3.0	4.3	3.0
240.	3.7	3.0	4.5	4.6	3.7	3.0	4.5	3.0
250.	3.6	3.0	4.9	4.7	3.6	3.0	4.9	3.0
260.	3.6	3.1	5.5	5.5	3.5	3.0	5.4	3.1
270.	4.9	4.3	4.3	4.5	3.6	3.0	4.3	4.2
280.	6.0	5.4	3.1	3.1	4.3	3.7	3.1	5.4
290.	5.2	4.9	3.0	3.0	4.6	4.0	3.0	4.9
300.	4.9	4.5	3.0	3.0	4.5	3.8	3.0	4.5
310.	4.6	4.3	3.0	3.0	4.4	3.7	3.0	4.3
320.	4.2	4.1	3.0	3.0	4.3	3.6	3.0	4.1
330.	4.0	4.0	3.0	3.0	4.4	3.6	3.0	4.0
340.	3.9	4.0	3.0	3.0	4.1	3.6	3.0	4.0
350.	3.8	4.0	3.0	3.0	3.6	3.6	3.0	4.0
360.	3.8	4.0	3.0	3.0	3.4	3.6	3.0	4.0
MAX	6.0	5.7	5.5	5.5	4.6	4.4	5.4	5.4
DEGR.	280	80	260	260	290	70	260	280

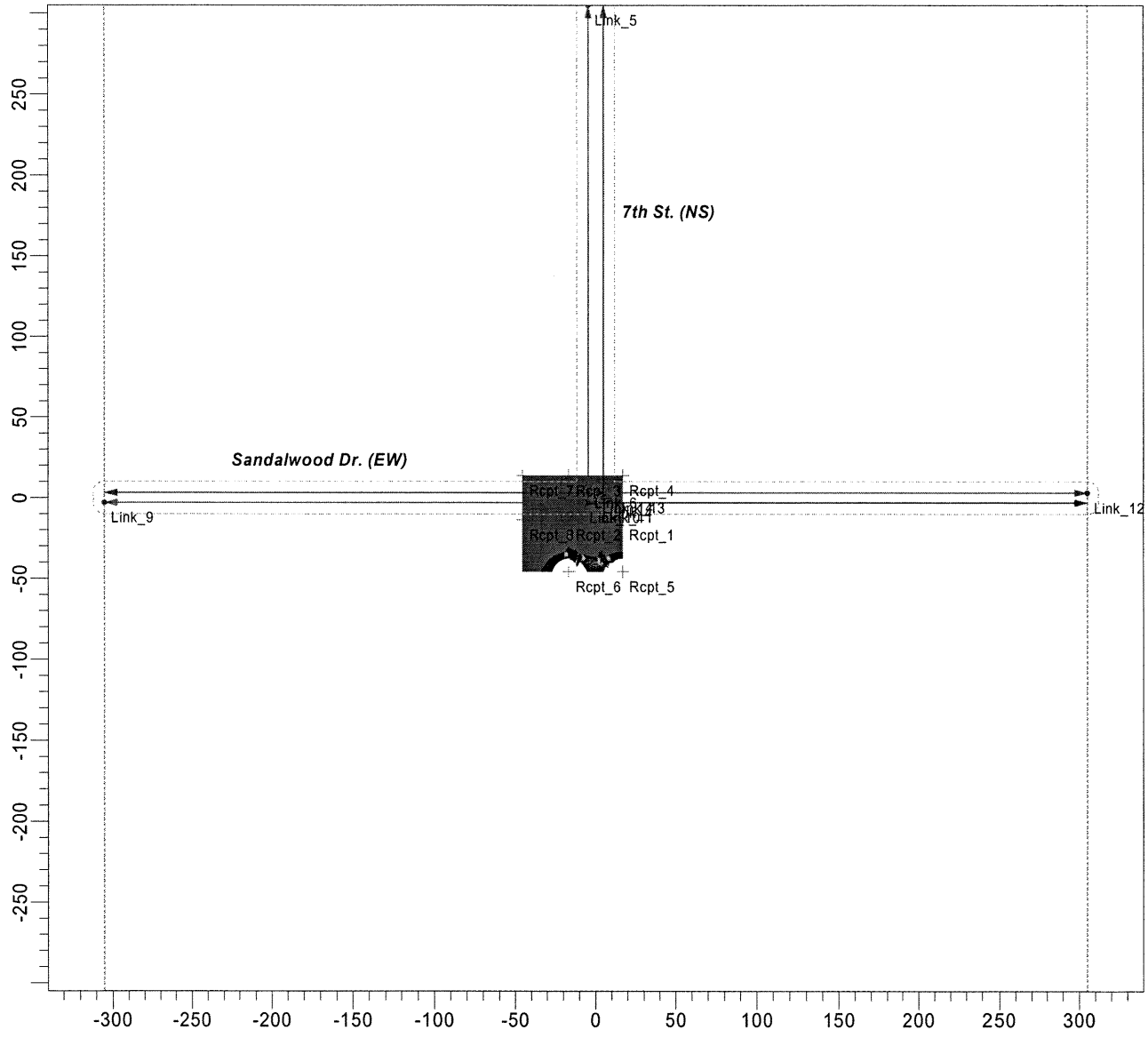
THE HIGHEST CONCENTRATION OF 6.00 PPM OCCURRED AT RECEPTOR REC1 .

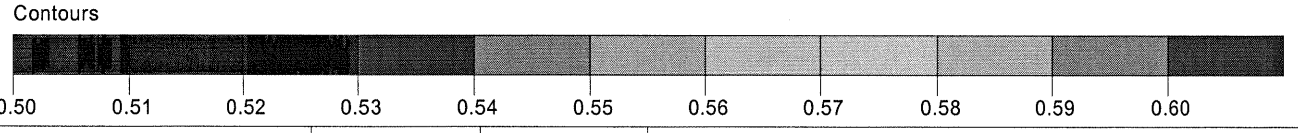
APPENDIX F

GENERAL PLAN BUILDOUT CONDITIONS
CAL3QHC CO HOTSPOT OUTPUT

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT GENERAL PLAN BUILDOUT AM PEAK HOUR
7th St. (NS) / Sandalwood Dr. (EW)





COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 5.40PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
			MODELER: **H.Q.**	URBAN CROSSROADS
	MAX: **1.10**	UNITS: **ppm**	0 100 m	
	LINKS: **9**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

DATE : 10/18/ 4
TIME : 15:39:21

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 2 (B) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)	LINK COORDINATES (M) X1	Y1	X2	Y2
1. NB Dep.	305.	360.	AG	328.	9.4	0.0	14.0			4.7	0.0	4.7	305.0
2. SB Appr.	305.	180.	AG	132.	9.4	0.0	14.0			-4.7	305.0	-4.7	0.0
3. SB Queue	3.	360.	AG	0.	100.0	0.0	14.0	0.12	0.5	-4.7	6.2	-4.7	9.5
4. EB Appr.	305.	90.	AG	2197.	9.4	0.0	14.0			-305.0	-3.1	0.0	-3.1
5. EB Queue	3325.	270.	AG	0.	100.0	0.0	14.0	1.92	554.1	-7.8	-3.1	-3332.6	-3.1
6. EB Dep.	305.	90.	AG	2197.	9.4	0.0	14.0			0.0	-3.1	305.0	-3.1
7. WB Appr.	305.	270.	AG	1519.	9.4	0.0	14.0			305.0	3.1	0.0	3.1
8. WB Queue	1238.	90.	AG	0.	100.0	0.0	14.0	1.33	206.3	7.8	3.1	1245.6	3.1
9. WB Dep.	305.	270.	AG	1323.	9.4	0.0	14.0			0.0	3.1	-305.0	3.1

FH

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

DATE : 10/18/ 4
TIME : 15:39:21

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. SB Queue	*	60	15	0.0	132	1600	0.40	2	1
5. EB Queue	*	60	15	0.0	2197	1600	0.40	2	1
8. WB Queue	*	60	15	0.0	1519	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z	*
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8	*
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8	*
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8	*
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8	*
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8	*
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8	*
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8	*
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8	*

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	0.7	0.7	0.0	0.1	0.2	0.2	0.0	0.7
5.	0.9	0.7	0.0	0.1	0.2	0.3	0.0	0.7
10.	0.9	0.7	0.0	0.0	0.3	0.3	0.0	0.8
15.	0.9	0.9	0.0	0.0	0.3	0.4	0.0	0.8
20.	0.9	0.9	0.0	0.0	0.3	0.3	0.0	0.7
25.	0.8	0.9	0.0	0.0	0.3	0.3	0.0	0.7
30.	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.7
35.	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.7
40.	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.8
45.	0.8	0.8	0.0	0.1	0.3	0.2	0.0	0.9
50.	0.8	0.7	0.1	0.1	0.3	0.2	0.0	0.9
55.	0.8	0.7	0.2	0.2	0.3	0.2	0.1	0.8
60.	0.8	0.7	0.2	0.2	0.3	0.2	0.3	0.8
65.	0.8	0.8	0.2	0.3	0.3	0.2	0.3	0.8
70.	0.7	0.8	0.2	0.3	0.2	0.2	0.4	0.7
75.	0.7	0.9	0.4	0.4	0.2	0.2	0.4	0.7
80.	0.7	0.9	0.5	0.4	0.2	0.2	0.5	0.7
85.	0.7	0.7	0.5	0.5	0.2	0.2	0.5	0.7
90.	0.7	0.7	0.5	0.6	0.2	0.2	0.5	0.6
95.	0.6	0.5	0.6	0.6	0.1	0.1	0.6	0.6
100.	0.5	0.4	0.7	0.6	0.1	0.1	0.6	0.6
105.	0.4	0.4	0.7	0.7	0.1	0.1	0.6	0.4
110.	0.4	0.4	0.7	0.8	0.0	0.0	0.6	0.4
115.	0.3	0.4	0.7	0.8	0.0	0.0	0.8	0.3
120.	0.3	0.2	0.8	0.8	0.0	0.0	0.8	0.2
125.	0.1	0.1	0.7	0.8	0.0	0.0	0.8	0.2
130.	0.1	0.1	0.7	0.8	0.0	0.0	0.8	0.1
135.	0.1	0.0	0.7	0.8	0.0	0.0	0.7	0.0
140.	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
145.	0.0	0.0	0.7	0.8	0.0	0.0	0.6	0.0
150.	0.0	0.0	0.8	0.8	0.0	0.0	0.7	0.0
155.	0.0	0.0	0.8	0.8	0.0	0.0	0.7	0.0
160.	0.0	0.0	0.8	0.8	0.0	0.0	0.7	0.0
165.	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
170.	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
175.	0.0	0.0	0.6	0.8	0.0	0.0	0.7	0.0
180.	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
185.	0.0	0.0	0.7	0.7	0.0	0.0	0.7	0.0
190.	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
195.	0.0	0.0	0.7	0.7	0.0	0.0	0.7	0.0
200.	0.0	0.0	0.7	0.7	0.0	0.0	0.7	0.0
205.	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
215.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
220.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
225.	*	0.0	0.1	0.7	0.7	0.0	0.0	0.7	0.1
230.	*	0.1	0.1	0.7	0.7	0.0	0.0	0.7	0.1
235.	*	0.1	0.1	0.7	0.7	0.0	0.0	0.7	0.1
240.	*	0.2	0.3	0.7	0.8	0.0	0.0	0.7	0.2
245.	*	0.4	0.3	0.7	0.7	0.0	0.0	0.7	0.3
250.	*	0.4	0.4	0.7	0.7	0.0	0.0	0.6	0.4
255.	*	0.4	0.4	0.6	0.8	0.1	0.1	0.6	0.4
260.	*	0.4	0.5	0.6	0.8	0.1	0.1	0.6	0.5
265.	*	0.5	0.5	0.6	0.8	0.1	0.1	0.6	0.5
270.	*	0.6	0.7	0.6	0.6	0.2	0.1	0.6	0.6
275.	*	0.6	0.7	0.4	0.5	0.2	0.2	0.4	0.7
280.	*	0.8	0.7	0.4	0.5	0.2	0.2	0.4	0.7
285.	*	0.8	0.7	0.4	0.5	0.2	0.2	0.4	0.7
290.	*	0.7	0.7	0.3	0.4	0.2	0.2	0.3	0.7
295.	*	0.7	0.7	0.2	0.3	0.2	0.3	0.2	0.7
300.	*	0.7	0.7	0.2	0.3	0.2	0.3	0.2	0.7
305.	*	0.7	0.7	0.2	0.3	0.2	0.3	0.2	0.7
310.	*	0.7	0.7	0.1	0.1	0.2	0.3	0.1	0.7
315.	*	0.8	0.7	0.0	0.1	0.2	0.3	0.0	0.7
320.	*	0.9	0.7	0.0	0.1	0.3	0.3	0.0	0.7
325.	*	0.8	0.7	0.0	0.1	0.3	0.3	0.0	0.7
330.	*	0.8	0.7	0.0	0.1	0.3	0.3	0.0	0.7
335.	*	0.9	0.7	0.0	0.1	0.4	0.3	0.0	0.7
340.	*	0.9	0.8	0.0	0.1	0.3	0.3	0.0	0.8
345.	*	0.8	0.8	0.0	0.1	0.3	0.3	0.0	0.8
350.	*	0.7	0.8	0.0	0.1	0.3	0.3	0.0	0.8
355.	*	0.7	0.8	0.0	0.1	0.3	0.2	0.0	0.8
360.	*	0.7	0.7	0.0	0.1	0.2	0.2	0.0	0.7
MAX	*	0.9	0.9	0.8	0.8	0.4	0.4	0.8	0.9
DEGR.	*	5	15	120	205	335	15	115	45

THE HIGHEST CONCENTRATION OF 0.90 PPM OCCURRED AT RECEPTOR REC1 .

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 3 (C) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.1	0.1	0.9	1.0	0.0	0.0	0.9	0.1
243.	0.1	0.1	0.9	0.9	0.0	0.0	0.9	0.1
246.	0.1	0.1	0.9	1.0	0.0	0.0	0.9	0.1
249.	0.1	0.2	0.9	1.0	0.0	0.0	0.9	0.2
252.	0.3	0.3	0.9	1.1	0.0	0.0	0.9	0.3
255.	0.3	0.4	0.8	1.1	0.0	0.0	0.8	0.3
258.	0.4	0.4	0.8	1.0	0.0	0.0	0.8	0.4
261.	0.5	0.5	0.8	0.9	0.1	0.1	0.8	0.5
264.	0.5	0.5	0.8	0.9	0.1	0.1	0.8	0.5
267.	0.7	0.7	0.6	0.8	0.1	0.1	0.6	0.7
270.	0.7	0.7	0.6	0.7	0.2	0.1	0.6	0.7
273.	0.8	0.8	0.6	0.7	0.2	0.2	0.6	0.8
276.	0.8	0.8	0.4	0.6	0.2	0.2	0.4	0.8
279.	0.8	0.8	0.4	0.5	0.3	0.3	0.4	0.8
282.	0.8	1.0	0.4	0.5	0.3	0.3	0.4	0.9
285.	0.9	1.0	0.3	0.3	0.3	0.3	0.3	1.0
288.	1.0	1.0	0.2	0.3	0.3	0.3	0.2	1.0
291.	1.0	1.0	0.2	0.3	0.3	0.3	0.2	1.0
294.	1.0	1.0	0.2	0.3	0.3	0.3	0.2	1.0
297.	0.9	1.0	0.1	0.1	0.3	0.3	0.1	1.0
300.	1.0	1.0	0.0	0.1	0.3	0.3	0.0	1.0
MAX	1.0	1.0	0.9	1.1	0.3	0.3	0.9	1.0
DEGR.	288	282	240	252	279	279	240	285

THE HIGHEST CONCENTRATION OF 1.10 PPM OCCURRED AT RECEPTOR REC4 .

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 3.0 PPM

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

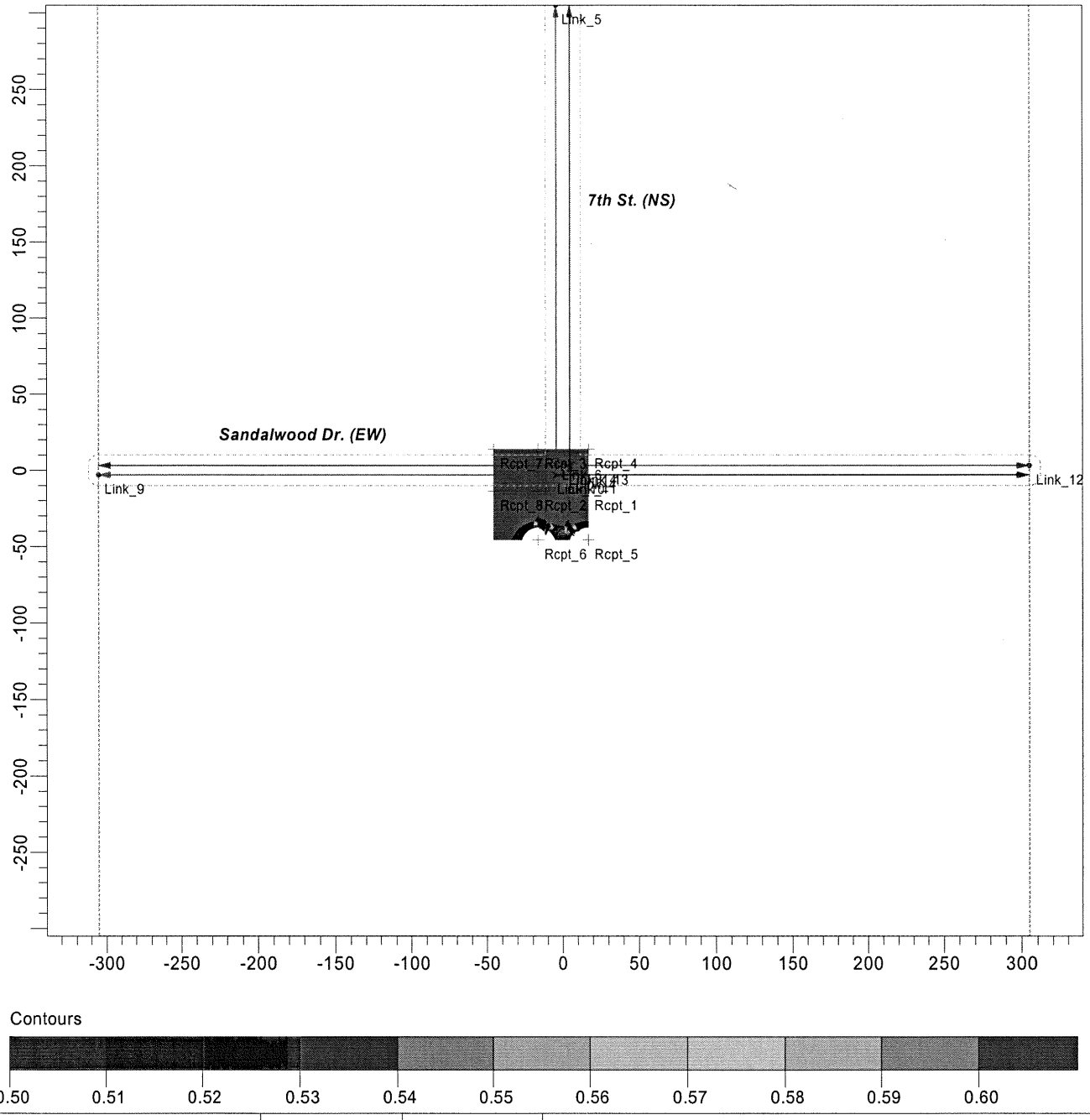
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	*	4.0	4.1	3.2	3.1	3.6	3.7	3.0	3.9
10.	*	3.9	4.1	3.2	3.0	3.5	3.7	3.0	4.0
20.	*	4.0	4.1	3.2	3.0	3.5	3.6	3.1	4.0
30.	*	4.0	4.0	3.2	3.0	3.5	3.5	3.1	4.0
40.	*	4.1	4.3	3.1	3.0	3.6	3.6	3.1	4.1
50.	*	4.2	4.3	3.1	3.0	3.7	3.7	3.1	4.3
60.	*	4.4	4.4	3.1	3.0	3.8	3.8	3.0	4.4
70.	*	4.8	4.8	3.1	3.0	4.0	4.0	3.0	4.8
80.	*	5.4	5.4	3.1	3.0	3.7	3.8	3.0	5.4
90.	*	4.4	4.4	4.4	4.2	3.0	3.1	4.4	4.5
100.	*	3.1	3.1	5.3	5.2	3.0	3.0	5.3	3.1
110.	*	3.0	3.0	4.8	4.7	3.0	3.0	4.8	3.0
120.	*	3.0	3.0	4.3	4.3	3.0	3.0	4.3	3.0
130.	*	3.0	3.0	4.1	4.2	3.0	3.0	4.1	3.0
140.	*	3.0	3.0	4.0	4.1	3.0	3.0	4.0	3.0
150.	*	3.0	3.0	3.9	4.0	3.0	3.0	4.0	3.0
160.	*	3.0	3.0	3.9	3.9	3.0	3.0	3.9	3.0
170.	*	3.0	3.0	3.8	3.9	3.0	3.0	3.8	3.0
180.	*	3.0	3.0	3.9	3.9	3.0	3.0	3.9	3.0
190.	*	3.0	3.0	3.8	3.9	3.0	3.0	3.8	3.0
200.	*	3.0	3.0	3.9	3.9	3.0	3.0	3.9	3.0
210.	*	3.0	3.0	4.0	3.9	3.0	3.0	4.0	3.0
220.	*	3.0	3.0	4.0	4.2	3.0	3.0	4.0	3.0
230.	*	3.0	3.0	4.1	4.2	3.0	3.0	4.1	3.0
240.	*	3.0	3.0	4.3	4.4	3.0	3.0	4.3	3.0
250.	*	3.0	3.0	4.6	4.7	3.0	3.0	4.6	3.0
260.	*	3.1	3.1	5.0	5.3	3.0	3.0	5.0	3.1
270.	*	4.3	4.3	4.1	4.3	3.1	3.0	4.1	4.2
280.	*	5.3	5.3	3.0	3.1	3.7	3.7	3.0	5.2
290.	*	4.7	4.7	3.0	3.1	3.9	3.9	3.0	4.7
300.	*	4.5	4.3	3.0	3.1	3.8	3.8	3.0	4.3
310.	*	4.2	4.2	3.0	3.1	3.6	3.6	3.0	4.2
320.	*	4.3	4.0	3.0	3.1	3.6	3.6	3.0	4.0
330.	*	4.1	3.9	3.0	3.1	3.5	3.5	3.0	3.9
340.	*	4.1	3.9	3.0	3.2	3.5	3.5	3.0	3.9
350.	*	4.2	3.9	3.0	3.3	3.8	3.5	3.0	3.9
360.	*	4.0	4.1	3.2	3.1	3.6	3.7	3.0	3.9
MAX	*	5.4	5.4	5.3	5.3	4.0	4.0	5.3	5.4
DEGR.	*	80	80	100	260	70	70	100	80

THE HIGHEST CONCENTRATION OF 5.40 PPM OCCURRED AT RECEPTOR REC1 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT GENERAL PLAN BUILDOUT PM PEAK HOUR
7th St. (NS) / Sandalwood Dr. (EW)



COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 5.40PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
	MAX: **1.10**	UNITS: **ppm**	MODELER: **H.Q.**	URBAN CROSSROADS
	LINKS: **9**	RECEPTORS: **8**	0 100 m DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

DATE : 10/18/ 4
TIME : 15:48:25

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 2 (B) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)	LINK COORDINATES (M) X1	Y1	X2	Y2
1. NB Dep.	305.	360.	AG	328.	9.4	0.0	14.0			4.7	0.0	4.7	305.0
2. SB Appr.	305.	180.	AG	132.	9.4	0.0	14.0			-4.7	305.0	-4.7	0.0
3. SB Queue	3.	360.	AG	0.	100.0	0.0	14.0	0.12	0.5	-4.7	6.2	-4.7	9.5
4. EB Appr.	305.	90.	AG	2197.	9.4	0.0	14.0			-305.0	-3.1	0.0	-3.1
5. EB Queue	3325.	270.	AG	0.	100.0	0.0	14.0	1.92	554.1	-7.8	-3.1	-3332.6	-3.1
6. EB Dep.	305.	90.	AG	2197.	9.4	0.0	14.0			0.0	-3.1	305.0	-3.1
7. WB Appr.	305.	270.	AG	1519.	9.4	0.0	14.0			305.0	3.1	0.0	3.1
8. WB Queue	1238.	90.	AG	0.	100.0	0.0	14.0	1.33	206.3	7.8	3.1	1245.6	3.1
9. WB Dep.	305.	270.	AG	1323.	9.4	0.0	14.0			0.0	3.1	-305.0	3.1

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

DATE : 10/18/ 4
TIME : 15:48:25

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. SB Queue	*	60	15	0.0	132	1600	0.40	2	1
5. EB Queue	*	60	15	0.0	2197	1600	0.40	2	1
8. WB Queue	*	60	15	0.0	1519	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z	*
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8	*
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8	*
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8	*
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8	*
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8	*
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8	*
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8	*
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8	*

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	*	0.7	0.7	0.0	0.1	0.2	0.2	0.0	0.7
5.	*	0.9	0.7	0.0	0.1	0.2	0.3	0.0	0.7
10.	*	0.9	0.7	0.0	0.0	0.3	0.3	0.0	0.8
15.	*	0.9	0.9	0.0	0.0	0.3	0.4	0.0	0.8
20.	*	0.9	0.9	0.0	0.0	0.3	0.3	0.0	0.7
25.	*	0.8	0.9	0.0	0.0	0.3	0.3	0.0	0.7
30.	*	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.7
35.	*	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.7
40.	*	0.8	0.8	0.0	0.0	0.3	0.3	0.0	0.8
45.	*	0.8	0.8	0.0	0.1	0.3	0.2	0.0	0.9
50.	*	0.8	0.7	0.1	0.1	0.3	0.2	0.0	0.9
55.	*	0.8	0.7	0.2	0.2	0.3	0.2	0.1	0.8
60.	*	0.8	0.7	0.2	0.2	0.3	0.2	0.3	0.8
65.	*	0.8	0.8	0.2	0.3	0.3	0.2	0.3	0.8
70.	*	0.7	0.8	0.2	0.3	0.2	0.2	0.4	0.7
75.	*	0.7	0.9	0.4	0.4	0.2	0.2	0.4	0.7
80.	*	0.7	0.9	0.5	0.4	0.2	0.2	0.5	0.7
85.	*	0.7	0.7	0.5	0.5	0.2	0.2	0.5	0.7
90.	*	0.7	0.7	0.5	0.6	0.2	0.2	0.5	0.6
95.	*	0.6	0.5	0.6	0.6	0.1	0.1	0.6	0.6
100.	*	0.5	0.4	0.7	0.6	0.1	0.1	0.6	0.6
105.	*	0.4	0.4	0.7	0.7	0.1	0.1	0.6	0.4
110.	*	0.4	0.4	0.7	0.8	0.0	0.0	0.6	0.4
115.	*	0.3	0.4	0.7	0.8	0.0	0.0	0.8	0.3
120.	*	0.3	0.2	0.8	0.8	0.0	0.0	0.8	0.2
125.	*	0.1	0.1	0.7	0.8	0.0	0.0	0.8	0.2
130.	*	0.1	0.1	0.7	0.8	0.0	0.0	0.8	0.1
135.	*	0.1	0.0	0.7	0.8	0.0	0.0	0.7	0.0
140.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
145.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.6	0.0
150.	*	0.0	0.0	0.8	0.8	0.0	0.0	0.7	0.0
155.	*	0.0	0.0	0.8	0.8	0.0	0.0	0.7	0.0
160.	*	0.0	0.0	0.8	0.8	0.0	0.0	0.7	0.0
165.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
170.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
175.	*	0.0	0.0	0.6	0.8	0.0	0.0	0.7	0.0
180.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
185.	*	0.0	0.0	0.7	0.7	0.0	0.0	0.7	0.0
190.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
195.	*	0.0	0.0	0.7	0.7	0.0	0.0	0.7	0.0
200.	*	0.0	0.0	0.7	0.7	0.0	0.0	0.7	0.0
205.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
215.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
220.	*	0.0	0.0	0.7	0.8	0.0	0.0	0.7	0.0
225.	*	0.0	0.1	0.7	0.7	0.0	0.0	0.7	0.1
230.	*	0.1	0.1	0.7	0.7	0.0	0.0	0.7	0.1
235.	*	0.1	0.1	0.7	0.7	0.0	0.0	0.7	0.1
240.	*	0.2	0.3	0.7	0.8	0.0	0.0	0.7	0.2
245.	*	0.4	0.3	0.7	0.7	0.0	0.0	0.7	0.3
250.	*	0.4	0.4	0.7	0.7	0.0	0.0	0.6	0.4
255.	*	0.4	0.4	0.6	0.8	0.1	0.1	0.6	0.4
260.	*	0.4	0.5	0.6	0.8	0.1	0.1	0.6	0.5
265.	*	0.5	0.5	0.6	0.8	0.1	0.1	0.6	0.5
270.	*	0.6	0.7	0.6	0.6	0.2	0.1	0.6	0.6
275.	*	0.6	0.7	0.4	0.5	0.2	0.2	0.4	0.7
280.	*	0.8	0.7	0.4	0.5	0.2	0.2	0.4	0.7
285.	*	0.8	0.7	0.4	0.5	0.2	0.2	0.4	0.7
290.	*	0.7	0.7	0.3	0.4	0.2	0.2	0.3	0.7
295.	*	0.7	0.7	0.2	0.3	0.2	0.3	0.2	0.7
300.	*	0.7	0.7	0.2	0.3	0.2	0.3	0.2	0.7
305.	*	0.7	0.7	0.2	0.3	0.2	0.3	0.2	0.7
310.	*	0.7	0.7	0.1	0.1	0.2	0.3	0.1	0.7
315.	*	0.8	0.7	0.0	0.1	0.2	0.3	0.0	0.7
320.	*	0.9	0.7	0.0	0.1	0.3	0.3	0.0	0.7
325.	*	0.8	0.7	0.0	0.1	0.3	0.3	0.0	0.7
330.	*	0.8	0.7	0.0	0.1	0.3	0.3	0.0	0.7
335.	*	0.9	0.7	0.0	0.1	0.4	0.3	0.0	0.7
340.	*	0.9	0.8	0.0	0.1	0.3	0.3	0.0	0.8
345.	*	0.8	0.8	0.0	0.1	0.3	0.3	0.0	0.8
350.	*	0.7	0.8	0.0	0.1	0.3	0.3	0.0	0.8
355.	*	0.7	0.8	0.0	0.1	0.3	0.2	0.0	0.8
360.	*	0.7	0.7	0.0	0.1	0.2	0.2	0.0	0.7
MAX	*	0.9	0.9	0.8	0.8	0.4	0.4	0.8	0.9
DEGR.	*	5	15	120	205	335	15	115	45

THE HIGHEST CONCENTRATION OF 0.90 PPM OCCURRED AT RECEPTOR REC1 .

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 3 (C) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.1	0.1	0.9	1.0	0.0	0.0	0.9	0.1
243.	0.1	0.1	0.9	0.9	0.0	0.0	0.9	0.1
246.	0.1	0.1	0.9	1.0	0.0	0.0	0.9	0.1
249.	0.1	0.2	0.9	1.0	0.0	0.0	0.9	0.2
252.	0.3	0.3	0.9	1.1	0.0	0.0	0.9	0.3
255.	0.3	0.4	0.8	1.1	0.0	0.0	0.8	0.3
258.	0.4	0.4	0.8	1.0	0.0	0.0	0.8	0.4
261.	0.5	0.5	0.8	0.9	0.1	0.1	0.8	0.5
264.	0.5	0.5	0.8	0.9	0.1	0.1	0.8	0.5
267.	0.7	0.7	0.6	0.8	0.1	0.1	0.6	0.7
270.	0.7	0.7	0.6	0.7	0.2	0.1	0.6	0.7
273.	0.8	0.8	0.6	0.7	0.2	0.2	0.6	0.8
276.	0.8	0.8	0.4	0.6	0.2	0.2	0.4	0.8
279.	0.8	0.8	0.4	0.5	0.3	0.3	0.4	0.8
282.	0.8	1.0	0.4	0.5	0.3	0.3	0.4	0.9
285.	0.9	1.0	0.3	0.3	0.3	0.3	0.3	1.0
288.	1.0	1.0	0.2	0.3	0.3	0.3	0.2	1.0
291.	1.0	1.0	0.2	0.3	0.3	0.3	0.2	1.0
294.	1.0	1.0	0.2	0.3	0.3	0.3	0.2	1.0
297.	0.9	1.0	0.1	0.1	0.3	0.3	0.1	1.0
300.	1.0	1.0	0.0	0.1	0.3	0.3	0.0	1.0
MAX	1.0	1.0	0.9	1.1	0.3	0.3	0.9	1.0
DEGR.	288	282	240	252	279	279	240	285

THE HIGHEST CONCENTRATION OF 1.10 PPM OCCURRED AT RECEPTOR REC4 .

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 3.0 PPM

JOB: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM RUN: 7th St (NS) / Sandalwood Dr.(EW) 2030 AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

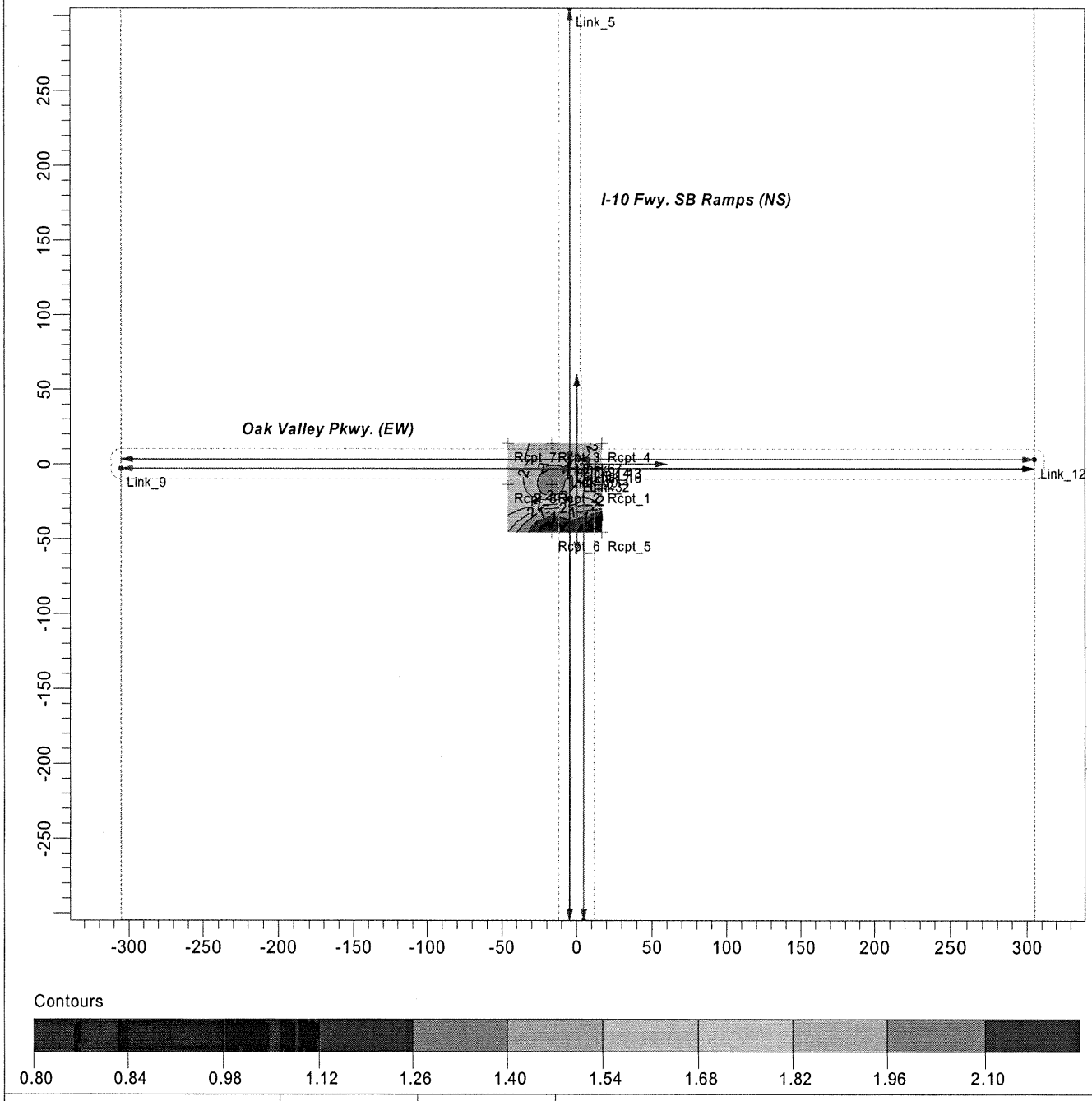
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	4.0	4.1	3.2	3.1	3.6	3.7	3.0	3.9
10.	3.9	4.1	3.2	3.0	3.5	3.7	3.0	4.0
20.	4.0	4.1	3.2	3.0	3.5	3.6	3.1	4.0
30.	4.0	4.0	3.2	3.0	3.5	3.5	3.1	4.0
40.	4.1	4.3	3.1	3.0	3.6	3.6	3.1	4.1
50.	4.2	4.3	3.1	3.0	3.7	3.7	3.1	4.3
60.	4.4	4.4	3.1	3.0	3.8	3.8	3.0	4.4
70.	4.8	4.8	3.1	3.0	4.0	4.0	3.0	4.8
80.	5.4	5.4	3.1	3.0	3.7	3.8	3.0	5.4
90.	4.4	4.4	4.4	4.2	3.0	3.1	4.4	4.5
100.	3.1	3.1	5.3	5.2	3.0	3.0	5.3	3.1
110.	3.0	3.0	4.8	4.7	3.0	3.0	4.8	3.0
120.	3.0	3.0	4.3	4.3	3.0	3.0	4.3	3.0
130.	3.0	3.0	4.1	4.2	3.0	3.0	4.1	3.0
140.	3.0	3.0	4.0	4.1	3.0	3.0	4.0	3.0
150.	3.0	3.0	3.9	4.0	3.0	3.0	4.0	3.0
160.	3.0	3.0	3.9	3.9	3.0	3.0	3.9	3.0
170.	3.0	3.0	3.8	3.9	3.0	3.0	3.8	3.0
180.	3.0	3.0	3.9	3.9	3.0	3.0	3.9	3.0
190.	3.0	3.0	3.8	3.9	3.0	3.0	3.8	3.0
200.	3.0	3.0	3.9	3.9	3.0	3.0	3.9	3.0
210.	3.0	3.0	4.0	3.9	3.0	3.0	4.0	3.0
220.	3.0	3.0	4.0	4.2	3.0	3.0	4.0	3.0
230.	3.0	3.0	4.1	4.2	3.0	3.0	4.1	3.0
240.	3.0	3.0	4.3	4.4	3.0	3.0	4.3	3.0
250.	3.0	3.0	4.6	4.7	3.0	3.0	4.6	3.0
260.	3.1	3.1	5.0	5.3	3.0	3.0	5.0	3.1
270.	4.3	4.3	4.1	4.3	3.1	3.0	4.1	4.2
280.	5.3	5.3	3.0	3.1	3.7	3.7	3.0	5.2
290.	4.7	4.7	3.0	3.1	3.9	3.9	3.0	4.7
300.	4.5	4.3	3.0	3.1	3.8	3.8	3.0	4.3
310.	4.2	4.2	3.0	3.1	3.6	3.6	3.0	4.2
320.	4.3	4.0	3.0	3.1	3.6	3.6	3.0	4.0
330.	4.1	3.9	3.0	3.1	3.5	3.5	3.0	3.9
340.	4.1	3.9	3.0	3.2	3.5	3.5	3.0	3.9
350.	4.2	3.9	3.0	3.3	3.8	3.5	3.0	3.9
360.	4.0	4.1	3.2	3.1	3.6	3.7	3.0	3.9
MAX	5.4	5.4	5.3	5.3	4.0	4.0	5.3	5.4
DEGR.	80	80	100	260	70	70	100	80

THE HIGHEST CONCENTRATION OF 5.40 PPM OCCURRED AT RECEPTOR REC1 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT GENERAL PLAN BUILDOUT AM PEAK HOUR
I-10 Fwy. SB Ramps (NS) / Oak Valley Pkwy. (EW)



COMMENTS:	MODEL:	POLLUTANT:	COMPANY NAME:
THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 6.70PPM	**CAL3QHC**	**CO**	**Urban Crossroads Inc.**
	MAX: **2.10**	UNITS: **ppm**	MODELER: **H.Q.**
	LINKS: **14**	RECEPTORS: **8**	0 — 100 m
			DATE: **10/27/2004**
			PROJECT / PLOT NO.: **JN: 02346**

URBAN CROSSROADS

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO AM RUN: 10 FWY SB / Oak Valley Pkwy. GPBO AM

DATE : 10/18/ 4
TIME : 15:59:29

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)	LINK COORDINATES (M) X1	Y1	X2	Y2
1. NB Appr.	305.	360.	AG	485.	9.4	0.0	14.0			4.7	-305.0	4.7	0.0
2. NB Que	21.	180.	AG	0.	100.0	0.0	14.0	0.39	3.4	4.7	-6.2	4.7	-26.7
3. NB Q.Left	18.	180.	AG	1.	100.0	0.0	6.0	0.50	3.0	0.0	-6.2	0.0	-24.3
4. SB Appr.	305.	180.	AG	707.	9.4	0.0	14.0			-4.7	305.0	-4.7	0.0
5. SB Queue	17.	360.	AG	1.	100.0	0.0	14.0	0.28	2.9	-4.7	6.2	-4.7	23.4
6. SB Q.Left	55.	360.	AG	1.	100.0	0.0	6.0	0.79	9.1	0.0	6.2	0.0	60.9
7. SB Dep.	305.	180.	AG	802.	9.4	0.0	14.0			-4.7	0.0	-4.7	-305.0
8. EB Appr.	305.	90.	AG	2392.	9.4	0.0	14.0			-305.0	-3.1	0.0	-3.1
9. EB Queue	4623.	270.	AG	0.	100.0	0.0	14.0	2.53	770.5	-7.8	-3.1	-4630.8	-3.1
10. EB Dep.	305.	90.	AG	3152.	9.4	0.0	14.0			0.0	-3.1	305.0	-3.1
11. WB Appr.	305.	270.	AG	2096.	9.4	0.0	14.0			305.0	3.1	0.0	3.1
12. WB Queue	1062.	90.	AG	0.	100.0	0.0	14.0	1.25	176.9	7.8	3.1	1069.3	3.1
13. WB Dep.	305.	270.	AG	1726.	9.4	0.0	14.0			0.0	3.1	-305.0	3.1
14. WB Turn Q.	38.	90.	AG	0.	100.0	0.0	6.0	0.61	6.3	7.8	0.0	45.4	0.0

DATE : 10/18/ 4
TIME : 15:59:29

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Que	*	120	32	12.0	385	1600	0.40	2	1
3. NB Q.Left	*	120	91	12.0	100	1600	0.40	2	1
5. SB Queue	*	120	56	12.0	184	1600	0.40	2	1
6. SB Q.Left	*	120	56	12.0	523	1600	0.40	2	1
9. EB Queue	*	120	35	12.0	2392	1600	0.40	2	1
12. WB Queue	*	120	8	12.0	1626	1600	0.40	2	1
14. WB Turn Q.	*	120	48	12.0	470	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z	*
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8	*
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8	*
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8	*
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8	*
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8	*
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8	*
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8	*
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8	*

FWY SB / Oak Valley Pkwy. GPBO AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	*	1.3	1.1	0.2	0.1	0.6	0.6	0.0	0.9
5.	*	1.3	1.1	0.2	0.1	0.6	0.5	0.1	1.0
10.	*	1.2	1.1	0.2	0.0	0.5	0.6	0.1	1.0
15.	*	1.2	1.1	0.3	0.0	0.5	0.8	0.1	1.0
20.	*	1.2	1.2	0.3	0.0	0.5	0.7	0.1	1.0
25.	*	1.2	1.2	0.2	0.0	0.5	0.9	0.1	1.1
30.	*	1.2	1.2	0.2	0.0	0.5	0.9	0.1	1.1
35.	*	1.3	1.3	0.2	0.0	0.6	0.8	0.1	1.2
40.	*	1.3	1.4	0.2	0.0	0.6	0.8	0.1	1.2
45.	*	1.4	1.4	0.2	0.0	0.6	0.9	0.1	1.2
50.	*	1.5	1.6	0.2	0.0	0.6	0.9	0.1	1.2
55.	*	1.5	1.5	0.2	0.0	0.6	0.9	0.1	1.4
60.	*	1.6	1.7	0.2	0.0	0.6	0.9	0.1	1.4
65.	*	1.7	2.0	0.2	0.0	0.6	1.0	0.1	1.6
70.	*	1.8	1.9	0.3	0.1	0.6	0.9	0.1	1.6
75.	*	1.9	2.1	0.4	0.2	0.6	0.9	0.3	1.8
80.	*	1.8	2.0	0.6	0.4	0.5	0.8	0.6	1.7
85.	*	1.6	1.9	0.9	0.7	0.3	0.6	0.8	1.6
90.	*	1.2	1.6	1.2	1.1	0.2	0.5	1.3	1.3
95.	*	0.8	1.1	1.7	1.4	0.1	0.4	1.5	0.9
100.	*	0.5	0.8	1.8	1.6	0.0	0.3	1.7	0.6
105.	*	0.2	0.5	1.9	1.8	0.0	0.3	1.6	0.2
110.	*	0.1	0.4	1.8	1.6	0.0	0.3	1.4	0.2
115.	*	0.0	0.3	1.8	1.6	0.0	0.3	1.4	0.1
120.	*	0.0	0.3	1.6	1.5	0.0	0.3	1.4	0.1
125.	*	0.0	0.3	1.5	1.5	0.0	0.3	1.2	0.1
130.	*	0.0	0.3	1.5	1.4	0.0	0.3	1.2	0.1
135.	*	0.0	0.3	1.4	1.3	0.0	0.3	1.2	0.2
140.	*	0.0	0.3	1.3	1.3	0.0	0.3	1.2	0.2
145.	*	0.0	0.3	1.4	1.3	0.0	0.3	1.2	0.2
150.	*	0.0	0.4	1.3	1.3	0.0	0.4	1.2	0.2
155.	*	0.0	0.4	1.3	1.1	0.0	0.4	1.1	0.2
160.	*	0.0	0.4	1.2	1.1	0.0	0.4	1.1	0.2
165.	*	0.0	0.4	1.3	1.1	0.0	0.4	1.0	0.1
170.	*	0.0	0.4	1.3	1.1	0.0	0.4	1.0	0.1
175.	*	0.2	0.3	1.2	1.3	0.2	0.3	1.0	0.1
180.	*	0.2	0.3	1.2	1.3	0.2	0.3	0.9	0.0
185.	*	0.2	0.1	1.0	1.3	0.2	0.1	0.9	0.0
190.	*	0.4	0.1	1.0	1.5	0.4	0.1	0.9	0.0
195.	*	0.4	0.0	0.9	1.5	0.4	0.0	0.9	0.0
200.	*	0.4	0.0	0.9	1.4	0.4	0.0	0.9	0.0
205.	*	0.4	0.0	0.9	1.4	0.4	0.0	0.9	0.0

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO AM RUN: 10

FWY SB / Oak Valley Pkwy. GPBO AM

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.4	0.0	1.0	1.5	0.4	0.0	1.0	0.0
215.	0.3	0.0	1.0	1.3	0.3	0.0	1.0	0.0
220.	0.3	0.0	1.0	1.5	0.3	0.0	1.0	0.0
225.	0.3	0.0	1.0	1.4	0.3	0.0	1.0	0.0
230.	0.2	0.0	1.1	1.4	0.2	0.0	1.1	0.0
235.	0.2	0.0	1.2	1.4	0.2	0.0	1.2	0.0
240.	0.2	0.0	1.2	1.6	0.2	0.0	1.2	0.0
245.	0.2	0.0	1.2	1.4	0.2	0.0	1.2	0.0
250.	0.3	0.1	1.3	1.6	0.2	0.0	1.3	0.1
255.	0.3	0.1	1.4	1.4	0.2	0.0	1.3	0.1
260.	0.6	0.4	1.3	1.5	0.2	0.0	1.3	0.4
265.	0.8	0.7	1.1	1.2	0.3	0.0	1.1	0.6
270.	1.2	1.0	0.9	0.9	0.4	0.2	0.9	0.9
275.	1.4	1.2	0.5	0.7	0.5	0.3	0.5	1.2
280.	1.6	1.4	0.3	0.4	0.5	0.3	0.3	1.3
285.	1.8	1.5	0.2	0.3	0.7	0.5	0.1	1.5
290.	1.6	1.4	0.0	0.1	0.7	0.5	0.0	1.4
295.	1.7	1.3	0.0	0.1	0.7	0.5	0.0	1.3
300.	1.6	1.2	0.0	0.1	0.7	0.5	0.0	1.2
305.	1.8	1.2	0.0	0.1	0.7	0.5	0.0	1.2
310.	1.6	1.2	0.0	0.1	0.7	0.5	0.0	1.2
315.	1.7	1.1	0.0	0.1	0.7	0.5	0.0	1.1
320.	1.5	1.1	0.0	0.1	0.7	0.5	0.0	1.1
325.	1.5	1.1	0.0	0.1	0.7	0.5	0.0	1.1
330.	1.5	1.0	0.0	0.1	0.7	0.5	0.0	1.0
335.	1.4	1.0	0.0	0.2	0.8	0.5	0.0	1.0
340.	1.4	0.9	0.0	0.2	0.8	0.4	0.0	0.9
345.	1.4	0.9	0.0	0.2	0.7	0.5	0.0	0.9
350.	1.3	1.0	0.1	0.1	0.7	0.6	0.0	0.9
355.	1.3	1.0	0.1	0.1	0.7	0.6	0.0	0.9
360.	1.3	1.1	0.2	0.1	0.6	0.6	0.0	0.9
MAX	1.9	2.1	1.9	1.8	0.8	1.0	1.7	1.8
DEGR.	75	75	105	105	335	65	100	75

THE HIGHEST CONCENTRATION OF 2.10 PPM OCCURRED AT RECEPTOR REC2 .

FWY SB / Oak Valley Pkwy. GPBO AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	* 0.2	0.0	1.2	1.6	0.2	0.0	1.2	0.0
243.	* 0.2	0.0	1.2	1.4	0.2	0.0	1.2	0.0
246.	* 0.2	0.0	1.3	1.5	0.2	0.0	1.3	0.0
249.	* 0.2	0.1	1.3	1.5	0.2	0.0	1.3	0.1
252.	* 0.3	0.1	1.4	1.5	0.2	0.0	1.4	0.1
255.	* 0.3	0.1	1.4	1.4	0.2	0.0	1.3	0.1
258.	* 0.5	0.3	1.3	1.5	0.2	0.0	1.3	0.3
261.	* 0.6	0.4	1.3	1.4	0.2	0.0	1.3	0.4
264.	* 0.8	0.6	1.1	1.4	0.2	0.0	1.1	0.5
267.	* 0.9	0.7	1.1	1.2	0.3	0.1	1.0	0.7
270.	* 1.2	1.0	0.9	0.9	0.4	0.2	0.9	0.9
273.	* 1.3	1.1	0.7	0.8	0.4	0.2	0.7	1.1
276.	* 1.6	1.3	0.5	0.6	0.5	0.3	0.5	1.3
279.	* 1.6	1.3	0.3	0.5	0.5	0.3	0.3	1.3
282.	* 1.8	1.5	0.3	0.3	0.7	0.5	0.2	1.5
285.	* 1.8	1.5	0.2	0.3	0.7	0.5	0.1	1.5
288.	* 1.8	1.5	0.1	0.2	0.7	0.5	0.1	1.5
291.	* 1.6	1.4	0.0	0.1	0.7	0.5	0.0	1.4
294.	* 1.7	1.4	0.0	0.1	0.7	0.5	0.0	1.4
297.	* 1.7	1.3	0.0	0.1	0.7	0.5	0.0	1.3
300.	* 1.6	1.2	0.0	0.1	0.7	0.5	0.0	1.2
MAX	* 1.8	1.5	1.4	1.6	0.7	0.5	1.4	1.5
DEGR.	* 282	282	252	240	282	282	252	282

THE HIGHEST CONCENTRATION OF 1.80 PPM OCCURRED AT RECEPTOR REC1 .

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO AM RUN: 10
FWY SB / Oak Valley Pkwy. GPBO AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 3.0 PPM

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO AM RUN: 10

FWY SB / Oak Valley Pkwy. GPBO AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

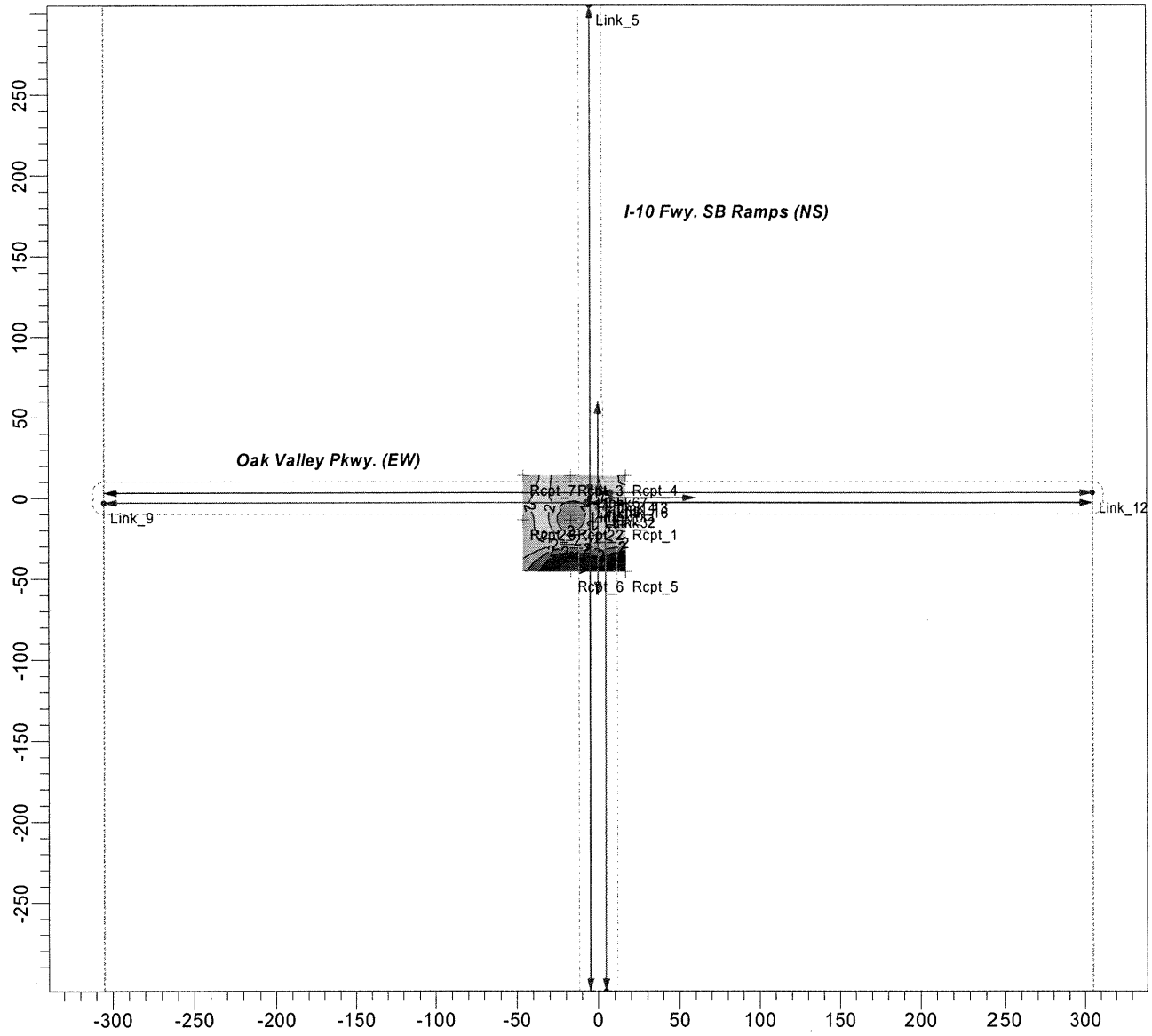
WIND ANGLE RANGE: 0.-360.

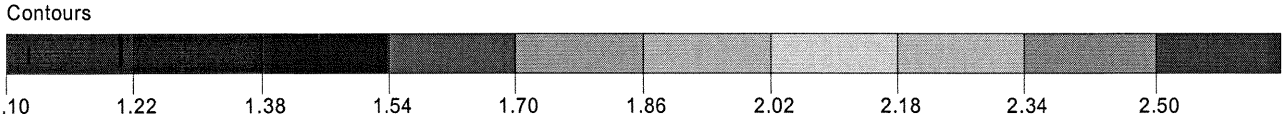
WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	*	4.5	4.4	3.3	3.1	3.9	3.9	3.0	4.1
10.	*	4.3	4.5	3.5	3.0	3.8	4.0	3.2	4.2
20.	*	4.3	4.3	3.3	3.0	3.8	4.1	3.2	4.2
30.	*	4.4	4.4	3.3	3.0	3.8	4.1	3.2	4.3
40.	*	4.5	4.5	3.2	3.0	3.9	4.3	3.1	4.3
50.	*	4.7	4.8	3.2	3.0	4.0	4.3	3.1	4.5
60.	*	5.0	5.2	3.2	3.0	4.1	4.4	3.1	4.7
70.	*	5.6	5.7	3.2	3.0	4.3	4.6	3.1	5.4
80.	*	6.4	6.7	3.3	3.1	3.9	4.4	3.2	6.3
90.	*	4.9	5.3	5.0	4.7	3.1	3.4	5.0	5.4
100.	*	3.1	3.4	6.4	6.1	3.0	3.3	6.2	3.3
110.	*	3.0	3.3	5.5	5.4	3.0	3.3	5.3	3.2
120.	*	3.0	3.3	5.1	4.9	3.0	3.3	4.7	3.2
130.	*	3.0	3.3	5.0	4.7	3.0	3.3	4.5	3.2
140.	*	3.0	3.4	4.6	4.5	3.0	3.4	4.5	3.3
150.	*	3.0	3.4	4.6	4.4	3.0	3.4	4.4	3.3
160.	*	3.0	3.6	4.7	4.3	3.0	3.6	4.4	3.3
170.	*	3.0	3.7	4.7	4.3	3.0	3.7	4.3	3.3
180.	*	3.3	3.4	4.4	4.6	3.3	3.4	4.0	3.0
190.	*	3.7	3.0	4.0	5.0	3.6	3.0	4.0	3.0
200.	*	3.5	3.0	4.1	4.8	3.5	3.0	4.1	3.0
210.	*	3.4	3.0	4.1	4.7	3.4	3.0	4.1	3.0
220.	*	3.4	3.0	4.2	4.7	3.4	3.0	4.2	3.0
230.	*	3.4	3.0	4.3	4.6	3.4	3.0	4.3	3.0
240.	*	3.3	3.0	4.5	4.9	3.3	3.0	4.5	3.0
250.	*	3.3	3.0	4.9	5.1	3.3	3.0	4.9	3.0
260.	*	3.4	3.1	5.4	5.7	3.3	3.0	5.4	3.1
270.	*	4.8	4.5	4.4	4.5	3.4	3.1	4.2	4.4
280.	*	5.9	5.6	3.1	3.2	4.1	3.8	3.0	5.6
290.	*	5.4	5.0	3.0	3.2	4.3	4.0	3.0	5.0
300.	*	5.1	4.6	3.0	3.2	4.1	3.8	3.0	4.6
310.	*	4.8	4.4	3.0	3.2	4.1	3.7	3.0	4.4
320.	*	4.8	4.2	3.0	3.2	4.1	3.7	3.0	4.2
330.	*	4.7	4.1	3.0	3.2	4.1	3.7	3.0	4.1
340.	*	4.6	4.0	3.0	3.3	4.1	3.5	3.0	4.0
350.	*	4.6	4.0	3.0	3.3	4.1	3.6	3.0	4.0
360.	*	4.5	4.4	3.3	3.1	3.9	3.9	3.0	4.1
MAX	*	6.4	6.7	6.4	6.1	4.3	4.6	6.2	6.3
DEGR.	*	80	80	100	100	70	70	100	80

THE HIGHEST CONCENTRATION OF 6.70 PPM OCCURRED AT RECEPTOR REC2 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT GENERAL PLAN BUILDOUT PM PEAK HOUR
I-10 Fwy. SB Ramps (NS) / Oak Valley Pkwy. (EW)





COMMENTS:	MODEL:	POLLUTANT:	COMPANY NAME:	
THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 7.40PPM	**CAL3QHC**	**CO**	**Urban Crossroads Inc.**	
			MODELER: **H.Q.**	URBAN CROSSROADS
	MAX: **2.50**	UNITS: **ppm**	0 — 100 m	
	LINKS: **14**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

CALRoads View - Lakes Environmental Software

C:\Documents and Settings\hqureshi\Desktop\CALROADS 2346\GP Buildout\I-10 fwy SB_Oak Valley\PM\PM.clv

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO PM RUN: 10 FWY SB / Oak Valley Pkwy. GPBO PM

DATE : 10/18/ 4
TIME : 16: 3:23

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)	LINK COORDINATES (M) X1	Y1	X2	Y2
1. NB Appr.	305.	360.	AG	613.	9.4	0.0	14.0			4.7	-305.0	4.7	0.0
2. NB Que	97.	180.	AG	1.	100.0	0.0	14.0	1.00	16.2	4.7	-6.2	4.7	-103.4
3. NB Q.Left	92.	180.	AG	1.	100.0	0.0	6.0	****	15.4	0.0	-6.2	0.0	-98.6
4. SB Appr.	305.	180.	AG	1444.	9.4	0.0	14.0			-4.7	305.0	-4.7	0.0
5. SB Queue	21.	360.	AG	1.	100.0	0.0	14.0	0.35	3.5	-4.7	6.2	-4.7	27.4
6. SB Q.Left	2237.	360.	AG	1.	100.0	0.0	6.0	2.17	372.9	0.0	6.2	0.0	2243.4
7. SB Dep.	305.	180.	AG	659.	9.4	0.0	14.0			-4.7	0.0	-4.7	-305.0
8. EB Appr.	305.	90.	AG	2818.	9.4	0.0	14.0			-305.0	-3.1	0.0	-3.1
9. EB Queue	6647.	270.	AG	0.	100.0	0.0	14.0	3.78	*****	-7.8	-3.1	-6655.2	-3.1
10. EB Dep.	305.	90.	AG	4298.	9.4	0.0	14.0			0.0	-3.1	305.0	-3.1
11. WB Appr.	305.	270.	AG	1980.	9.4	0.0	14.0			305.0	3.1	0.0	3.1
12. WB Queue	1768.	90.	AG	0.	100.0	0.0	14.0	1.47	294.6	7.8	3.1	1775.4	3.1
13. WB Dep.	305.	270.	AG	1898.	9.4	0.0	14.0			0.0	3.1	-305.0	3.1
14. WB Turn Q.	661.	90.	AG	1.	100.0	0.0	6.0	3.01	110.2	7.8	0.0	668.9	0.0

DATE : 10/18/ 4
TIME : 16: 3:23

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Que	*	120	75	12.0	415	1600	0.40	2	1
3. NB Q.Left	*	120	112	12.0	198	1600	0.40	2	1
5. SB Queue	*	120	63	12.0	202	1600	0.40	2	1
6. SB Q.Left	*	120	63	12.0	1242	1600	0.40	2	1
9. EB Queue	*	120	50	12.0	2818	1600	0.40	2	1
12. WB Queue	*	120	19	12.0	1700	1600	0.40	2	1
14. WB Turn Q.	*	120	99	12.0	280	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

FWY SB / Oak Valley Pkwy. GPBO PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	1.7	1.4	0.3	0.2	0.8	0.8	0.1	1.2
5.	1.6	1.5	0.4	0.1	0.8	0.9	0.1	1.2
10.	1.6	1.6	0.5	0.1	0.8	0.8	0.1	1.3
15.	1.5	1.6	0.5	0.0	0.7	0.8	0.2	1.3
20.	1.5	1.5	0.5	0.0	0.6	1.1	0.2	1.3
25.	1.5	1.6	0.5	0.0	0.7	1.0	0.2	1.3
30.	1.6	1.6	0.5	0.0	0.7	1.1	0.2	1.4
35.	1.6	1.5	0.4	0.0	0.7	0.9	0.2	1.4
40.	1.6	1.6	0.4	0.0	0.7	1.0	0.2	1.4
45.	1.7	1.6	0.4	0.0	0.7	1.0	0.2	1.4
50.	1.8	1.7	0.4	0.0	0.7	1.0	0.2	1.5
55.	1.9	1.9	0.4	0.0	0.7	1.0	0.2	1.6
60.	2.0	1.9	0.4	0.0	0.8	1.1	0.2	1.7
65.	2.1	2.1	0.4	0.0	0.8	1.1	0.2	1.8
70.	2.2	2.2	0.3	0.1	0.8	1.1	0.2	2.0
75.	2.3	2.5	0.5	0.2	0.7	1.0	0.4	2.0
80.	2.2	2.4	0.7	0.4	0.6	0.9	0.7	2.0
85.	1.9	2.1	1.2	0.8	0.4	0.7	1.0	1.9
90.	1.5	1.8	1.5	1.2	0.3	0.6	1.4	1.6
95.	1.0	1.3	2.0	1.6	0.1	0.4	1.7	1.2
100.	0.6	0.9	2.2	1.9	0.0	0.3	1.9	0.8
105.	0.2	0.5	2.3	2.0	0.0	0.3	1.9	0.4
110.	0.1	0.4	2.2	2.0	0.0	0.3	1.9	0.3
115.	0.0	0.3	2.1	1.8	0.0	0.3	1.7	0.2
120.	0.0	0.3	1.9	1.8	0.0	0.3	1.8	0.2
125.	0.0	0.3	2.0	1.7	0.0	0.3	1.5	0.2
130.	0.0	0.3	1.9	1.6	0.0	0.3	1.5	0.2
135.	0.0	0.3	1.9	1.6	0.0	0.3	1.4	0.2
140.	0.0	0.3	1.7	1.5	0.0	0.3	1.3	0.2
145.	0.0	0.3	1.7	1.5	0.0	0.3	1.3	0.2
150.	0.0	0.3	1.5	1.4	0.0	0.3	1.3	0.2
155.	0.0	0.3	1.5	1.4	0.0	0.3	1.3	0.2
160.	0.0	0.3	1.5	1.4	0.0	0.3	1.3	0.2
165.	0.0	0.3	1.4	1.4	0.0	0.3	1.3	0.2
170.	0.1	0.3	1.3	1.4	0.1	0.3	1.2	0.1
175.	0.1	0.3	1.4	1.4	0.1	0.3	1.2	0.0
180.	0.2	0.3	1.4	1.5	0.2	0.3	1.1	0.0
185.	0.3	0.1	1.2	1.6	0.3	0.1	1.1	0.0
190.	0.3	0.1	1.2	1.6	0.3	0.1	1.1	0.0
195.	0.3	0.0	1.1	1.7	0.3	0.0	1.1	0.0
200.	0.3	0.0	1.1	1.6	0.3	0.0	1.1	0.0
205.	0.3	0.0	1.1	1.7	0.3	0.0	1.1	0.0

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO PM RUN: 10

FWY SB / Oak Valley Pkwy. GPBO PM

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	*	0.3	0.0	1.1	1.6	0.3	0.0	1.1	0.0
215.	*	0.3	0.0	1.1	1.5	0.3	0.0	1.1	0.0
220.	*	0.3	0.0	1.1	1.6	0.3	0.0	1.1	0.0
225.	*	0.3	0.0	1.2	1.7	0.3	0.0	1.2	0.0
230.	*	0.3	0.0	1.3	1.7	0.3	0.0	1.3	0.0
235.	*	0.3	0.0	1.3	1.6	0.3	0.0	1.3	0.0
240.	*	0.3	0.0	1.4	1.7	0.3	0.0	1.4	0.0
245.	*	0.2	0.0	1.4	1.6	0.2	0.0	1.4	0.0
250.	*	0.3	0.1	1.6	1.8	0.2	0.0	1.5	0.1
255.	*	0.4	0.2	1.6	1.8	0.2	0.0	1.6	0.2
260.	*	0.6	0.4	1.5	1.6	0.2	0.0	1.4	0.4
265.	*	0.9	0.7	1.3	1.5	0.3	0.1	1.3	0.7
270.	*	1.3	1.1	1.0	1.2	0.4	0.2	0.9	1.1
275.	*	1.7	1.4	0.7	0.9	0.5	0.3	0.7	1.4
280.	*	1.9	1.6	0.4	0.6	0.7	0.4	0.3	1.6
285.	*	2.0	1.7	0.2	0.4	0.7	0.5	0.2	1.7
290.	*	2.0	1.6	0.1	0.2	0.8	0.6	0.0	1.6
295.	*	2.1	1.6	0.0	0.3	0.8	0.6	0.0	1.6
300.	*	2.1	1.5	0.0	0.3	0.9	0.6	0.0	1.5
305.	*	2.0	1.4	0.0	0.3	0.9	0.6	0.0	1.4
310.	*	2.1	1.3	0.0	0.3	0.8	0.5	0.0	1.3
315.	*	1.9	1.2	0.0	0.3	0.8	0.5	0.0	1.2
320.	*	1.9	1.2	0.0	0.3	0.8	0.5	0.0	1.2
325.	*	2.0	1.2	0.0	0.3	1.0	0.5	0.0	1.2
330.	*	2.0	1.2	0.0	0.3	0.9	0.5	0.0	1.2
335.	*	1.9	1.1	0.0	0.3	1.1	0.5	0.0	1.1
340.	*	1.7	1.1	0.0	0.3	1.1	0.5	0.0	1.1
345.	*	1.7	1.2	0.1	0.3	1.0	0.6	0.0	1.1
350.	*	1.8	1.2	0.1	0.3	1.0	0.6	0.0	1.1
355.	*	1.8	1.3	0.2	0.2	0.9	0.7	0.0	1.1
360.	*	1.7	1.4	0.3	0.2	0.8	0.8	0.1	1.2
MAX	*	2.3	2.5	2.3	2.0	1.1	1.1	1.9	2.0
DEGR.	*	75	75	105	105	335	20	105	70

THE HIGHEST CONCENTRATION OF 2.50 PPM OCCURRED AT RECEPTOR REC2 .

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO PM RUN: 10
FWY SB / Oak Valley Pkwy. GPBO PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.3	0.0	1.4	1.7	0.3	0.0	1.4	0.0
243.	0.3	0.0	1.4	1.7	0.3	0.0	1.4	0.0
246.	0.2	0.0	1.4	1.7	0.2	0.0	1.4	0.0
249.	0.3	0.1	1.5	1.8	0.2	0.0	1.5	0.1
252.	0.3	0.1	1.6	1.8	0.2	0.0	1.6	0.1
255.	0.4	0.2	1.6	1.8	0.2	0.0	1.6	0.2
258.	0.5	0.3	1.5	1.7	0.2	0.0	1.5	0.3
261.	0.7	0.5	1.4	1.6	0.2	0.0	1.4	0.4
264.	0.9	0.7	1.3	1.6	0.3	0.0	1.3	0.7
267.	1.1	0.8	1.2	1.5	0.3	0.1	1.1	0.8
270.	1.3	1.1	1.0	1.2	0.4	0.2	0.9	1.1
273.	1.5	1.3	0.8	1.0	0.5	0.3	0.7	1.3
276.	1.7	1.4	0.6	0.8	0.5	0.3	0.5	1.4
279.	1.9	1.6	0.4	0.6	0.7	0.4	0.4	1.6
282.	2.0	1.7	0.3	0.5	0.7	0.5	0.3	1.6
285.	2.0	1.7	0.2	0.4	0.7	0.5	0.2	1.7
288.	2.0	1.7	0.1	0.3	0.8	0.6	0.1	1.7
291.	2.1	1.6	0.0	0.2	0.8	0.6	0.0	1.6
294.	2.1	1.6	0.0	0.3	0.8	0.6	0.0	1.6
297.	2.1	1.5	0.0	0.3	0.9	0.6	0.0	1.5
300.	2.1	1.5	0.0	0.3	0.9	0.6	0.0	1.5
MAX	2.1	1.7	1.6	1.8	0.9	0.6	1.6	1.7
DEGR.	294	282	252	252	297	288	252	285

THE HIGHEST CONCENTRATION OF 2.10 PPM OCCURRED AT RECEPTOR REC1 .

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO PM RUN: 10
FWY SB / Oak Valley Pkwy. GPBO PM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 3.0 PPM

JOB: 10 FWY SB / Oak Valley Pkwy. GPBO PM RUN: 10
FWY SB / Oak Valley Pkwy. GPBO PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

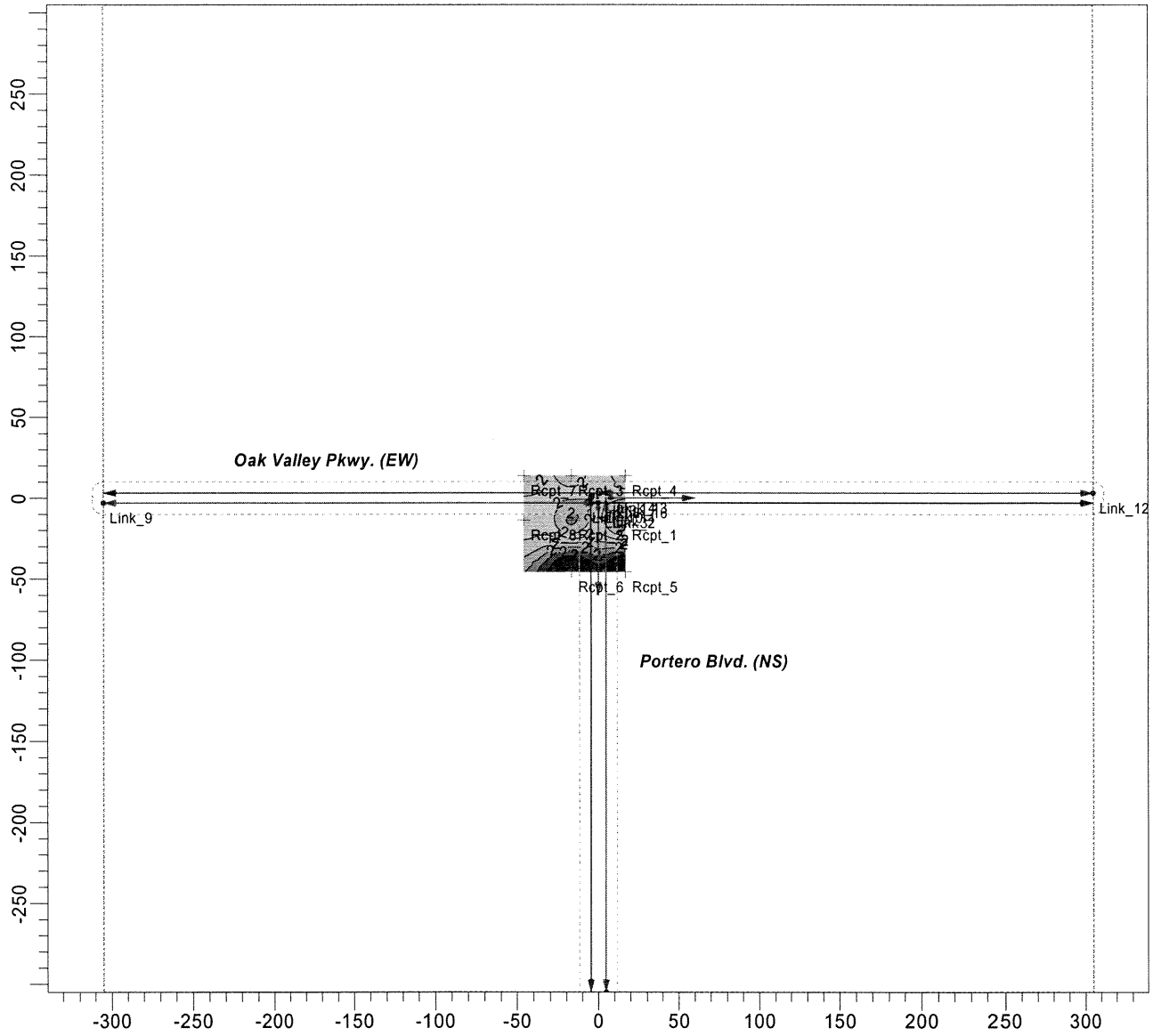
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	*	4.9	4.8	3.6	3.2	4.2	4.3	3.0	4.2
10.	*	4.5	5.1	3.9	3.0	3.9	4.4	3.3	4.4
20.	*	4.7	4.8	3.7	3.0	3.9	4.3	3.4	4.6
30.	*	4.8	4.8	3.6	3.0	4.0	4.4	3.3	4.6
40.	*	4.9	4.8	3.5	3.0	4.1	4.5	3.3	4.7
50.	*	5.2	5.1	3.4	3.0	4.2	4.5	3.3	4.8
60.	*	5.5	5.5	3.4	3.0	4.3	4.6	3.2	5.1
70.	*	6.1	6.2	3.4	3.0	4.6	4.9	3.2	5.6
80.	*	7.1	7.4	3.5	3.1	4.2	4.7	3.3	7.1
90.	*	5.4	5.8	5.4	4.9	3.1	3.4	5.4	5.8
100.	*	3.1	3.4	7.2	6.6	3.0	3.3	6.9	3.3
110.	*	3.0	3.3	6.2	5.9	3.0	3.3	5.8	3.2
120.	*	3.0	3.3	5.6	5.2	3.0	3.3	5.0	3.2
130.	*	3.0	3.3	5.3	4.9	3.0	3.3	4.7	3.2
140.	*	3.0	3.4	4.9	4.7	3.0	3.4	4.5	3.2
150.	*	3.0	3.5	4.9	4.7	3.0	3.5	4.5	3.2
160.	*	3.0	3.5	4.8	4.5	3.0	3.5	4.5	3.3
170.	*	3.0	3.7	4.8	4.5	3.0	3.7	4.4	3.2
180.	*	3.3	3.4	4.5	4.8	3.3	3.3	4.1	3.0
190.	*	3.7	3.0	4.1	5.2	3.7	3.0	4.1	3.0
200.	*	3.5	3.0	4.2	5.0	3.5	3.0	4.2	3.0
210.	*	3.4	3.0	4.3	5.1	3.4	3.0	4.3	3.0
220.	*	3.4	3.0	4.3	4.9	3.4	3.0	4.3	3.0
230.	*	3.3	3.0	4.5	5.0	3.3	3.0	4.5	3.0
240.	*	3.3	3.0	4.7	5.0	3.3	3.0	4.7	3.0
250.	*	3.3	3.0	5.2	5.5	3.3	3.0	5.2	3.0
260.	*	3.4	3.1	5.9	6.2	3.3	3.0	5.7	3.1
270.	*	5.1	4.7	4.6	4.9	3.4	3.1	4.4	4.6
280.	*	6.4	6.0	3.1	3.4	4.3	3.9	3.1	6.0
290.	*	5.8	5.3	3.0	3.3	4.4	4.1	3.0	5.3
300.	*	5.6	4.8	3.0	3.3	4.3	4.0	3.0	4.8
310.	*	5.3	4.5	3.0	3.3	4.1	3.8	3.0	4.5
320.	*	5.4	4.4	3.0	3.4	4.2	3.8	3.0	4.4
330.	*	5.2	4.3	3.0	3.4	4.3	3.7	3.0	4.3
340.	*	5.2	4.2	3.0	3.5	4.5	3.7	3.0	4.2
350.	*	5.1	4.1	3.0	3.6	4.6	3.7	3.0	4.1
360.	*	4.9	4.8	3.6	3.2	4.2	4.3	3.0	4.2
MAX	*	7.1	7.4	7.2	6.6	4.6	4.9	6.9	7.1
DEGR.	*	80	80	100	100	350	70	100	80

THE HIGHEST CONCENTRATION OF 7.40 PPM OCCURRED AT RECEPTOR REC2 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT GENERAL PLAN BUILDOUT AM PEAK HOUR
Portero Blvd. (NS). and Oak Valley Pkwy (EW)



Contours

1.30 1.32 1.44 1.56 1.68 1.80 1.92 2.04 2.16 2.28 2.40

COMMENTS:	MODEL:	POLLUTANT:	COMPANY NAME:	
THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 6.40PPM	**CAL3QHC**	**CO**	**Urban Crossroads Inc.**	
	MAX: **2.40**	UNITS: **ppm**	MODELER: **H.Q.**	URBAN CROSSROADS
	LINKS: **11**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

0 100 m

CALRoads View - Lakes Environmental Software

C:\Documents and Settings\hqureshi\Desktop\CALROADS 2346\GP Buildout\Portero_Oak Valley\AM\AM.clv

JOB: Portero / Oak Valley Buildout AM RUN: Portero / Oak Valley Buildout AM

DATE : 10/18/ 4
TIME : 16:10:56

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
LENGTH BRG TYPE VPH EF	H W V/C QUEUE					
	*	X1	Y1	X2	Y2	*
(M) (DEG) (G/MI)	(M) (M)	(VEH)				
1. NB Appr.	*	4.7	-305.0	4.7	0.0	*
305. 360. AG 1115. 9.4	0.0 14.0					
2. NB Que	*	4.7	-6.2	4.7	-6.3	*
0. 180. AG 0. 100.0	0.0 14.0 0.00	0.0				
3. NB Q.Left	*	0.0	-6.2	0.0	-743.9	*
738. 180. AG 0. 100.0	0.0 6.0 1.21	123.0				
4. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 1054. 9.4	0.0 14.0					
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 1118. 9.4	0.0 14.0					
6. EB Queue	*	-7.8	-3.1	-1093.0	-3.1	*
1085. 270. AG 0. 100.0	0.0 14.0 1.38	180.9				
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 1118. 9.4	0.0 14.0					
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 1913. 9.4	0.0 14.0					
9. WB Queue	*	7.8	3.1	25.0	3.1	*
17. 90. AG 0. 100.0	0.0 14.0 0.64	2.9				
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 1974. 9.4	0.0 14.0					
11. WB Turn Q.	*	7.8	0.0	637.0	0.0	*
629. 90. AG 0. 100.0	0.0 6.0 1.18	104.9				

JOB: Portero / Oak Valley Buildout AM RUN: Portero / Oak Valley Buildout AM

DATE : 10/18/ 4
TIME : 16:10:56

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Que	*	85	38	8.0	1	1600	0.40	2	1
3. NB Q.Left	*	120	43	6.0	1115	1600	0.40	2	1
6. EB Queue	*	120	51	6.0	1118	1600	0.40	2	1
9. WB Queue	*	120	12	6.0	859	1600	0.40	2	1
11. WB Turn Q.	*	120	45	6.0	1054	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	0.7	0.7	0.0	0.0	0.5	0.5	0.0	0.7
5.	0.7	0.7	0.0	0.0	0.5	0.6	0.0	0.7
10.	0.7	0.7	0.0	0.0	0.5	0.7	0.0	0.7
15.	0.7	0.7	0.0	0.0	0.5	0.7	0.0	0.7
20.	0.8	0.8	0.0	0.0	0.5	0.9	0.0	0.8
25.	0.8	0.9	0.0	0.0	0.5	1.1	0.0	0.8
30.	0.8	0.9	0.0	0.0	0.5	1.2	0.0	0.8
35.	0.8	1.0	0.0	0.0	0.5	1.2	0.0	0.8
40.	0.9	1.0	0.0	0.0	0.5	1.2	0.0	0.9
45.	0.9	1.1	0.0	0.0	0.5	1.1	0.0	0.9
50.	0.9	1.4	0.0	0.0	0.5	1.0	0.0	1.0
55.	1.0	1.5	0.0	0.0	0.6	1.1	0.0	1.0
60.	1.1	1.6	0.0	0.0	0.6	1.1	0.0	1.2
65.	1.2	1.7	0.0	0.0	0.7	1.3	0.0	1.2
70.	1.4	1.9	0.0	0.0	0.7	1.2	0.0	1.5
75.	1.6	2.1	0.0	0.0	0.7	1.3	0.0	1.8
80.	1.8	2.3	0.1	0.1	0.5	1.2	0.1	2.0
85.	1.7	2.2	0.4	0.4	0.2	0.8	0.4	2.1
90.	0.9	1.5	1.2	1.2	0.0	0.5	1.2	1.5
95.	0.3	0.8	1.9	1.8	0.0	0.5	1.9	0.7
100.	0.0	0.5	2.0	2.0	0.0	0.5	2.0	0.4
105.	0.0	0.5	1.7	1.7	0.0	0.5	1.8	0.4
110.	0.0	0.5	1.5	1.5	0.0	0.5	1.7	0.3
115.	0.0	0.6	1.4	1.3	0.0	0.6	1.6	0.4
120.	0.0	0.5	1.2	1.2	0.0	0.5	1.5	0.4
125.	0.0	0.5	1.3	1.0	0.0	0.5	1.5	0.4
130.	0.0	0.5	1.4	1.0	0.0	0.5	1.4	0.4
135.	0.0	0.6	1.3	1.0	0.0	0.6	1.4	0.4
140.	0.0	0.7	1.4	0.9	0.0	0.7	1.3	0.4
145.	0.0	0.7	1.4	0.9	0.0	0.7	1.3	0.4
150.	0.0	0.7	1.5	0.9	0.0	0.7	1.3	0.4
155.	0.0	0.9	1.6	0.8	0.0	0.9	1.2	0.4
160.	0.0	0.9	1.7	0.8	0.0	0.9	1.4	0.6
165.	0.0	1.1	1.9	0.8	0.0	1.1	1.4	0.5
170.	0.0	1.2	1.9	0.7	0.0	1.2	1.2	0.4
175.	0.1	1.1	1.9	1.0	0.1	0.9	1.0	0.2
180.	0.6	0.6	1.4	1.5	0.5	0.5	0.8	0.0
185.	1.1	0.1	0.9	1.9	1.0	0.1	0.8	0.0
190.	1.2	0.0	0.7	1.9	1.1	0.0	0.7	0.0
195.	1.0	0.0	0.8	1.8	1.0	0.0	0.8	0.0
200.	0.9	0.0	0.8	1.7	0.9	0.0	0.8	0.0
205.	0.8	0.0	0.8	1.5	0.8	0.0	0.8	0.0

JOB: Portero / Oak Valley Buildout AM RUN: Portero / Oak Valley Buildout AM

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.7	0.0	0.9	1.5	0.7	0.0	0.9	0.0
215.	0.7	0.0	0.9	1.4	0.7	0.0	0.9	0.0
220.	0.7	0.0	0.9	1.4	0.7	0.0	0.9	0.0
225.	0.7	0.0	1.0	1.3	0.7	0.0	1.0	0.0
230.	0.5	0.0	1.0	1.3	0.5	0.0	1.0	0.0
235.	0.5	0.0	1.1	1.3	0.5	0.0	1.1	0.0
240.	0.5	0.0	1.2	1.2	0.5	0.0	1.2	0.0
245.	0.5	0.0	1.3	1.3	0.5	0.0	1.3	0.0
250.	0.5	0.0	1.6	1.5	0.5	0.0	1.6	0.0
255.	0.5	0.0	1.7	1.8	0.5	0.0	1.7	0.0
260.	0.5	0.0	2.0	2.0	0.5	0.0	2.0	0.0
265.	0.8	0.3	1.9	1.9	0.5	0.0	1.8	0.3
270.	1.5	1.0	1.2	1.2	0.5	0.0	1.0	0.9
275.	2.2	1.7	0.4	0.4	0.8	0.2	0.4	1.6
280.	2.4	1.8	0.1	0.1	1.2	0.5	0.1	1.8
285.	2.1	1.6	0.0	0.0	1.3	0.8	0.0	1.6
290.	1.9	1.4	0.0	0.0	1.3	0.8	0.0	1.4
295.	1.7	1.2	0.0	0.0	1.2	0.7	0.0	1.2
300.	1.6	1.2	0.0	0.0	1.1	0.6	0.0	1.2
305.	1.5	1.0	0.0	0.0	1.1	0.6	0.0	1.0
310.	1.4	1.0	0.0	0.0	1.0	0.5	0.0	1.0
315.	1.2	0.9	0.0	0.0	1.2	0.5	0.0	0.9
320.	1.1	0.9	0.0	0.0	1.2	0.5	0.0	0.9
325.	1.0	0.8	0.0	0.0	1.2	0.5	0.0	0.8
330.	0.9	0.8	0.0	0.0	1.1	0.5	0.0	0.8
335.	0.9	0.8	0.0	0.0	1.1	0.5	0.0	0.8
340.	0.8	0.8	0.0	0.0	0.9	0.5	0.0	0.8
345.	0.7	0.7	0.0	0.0	0.7	0.5	0.0	0.7
350.	0.7	0.7	0.0	0.0	0.6	0.5	0.0	0.7
355.	0.7	0.7	0.0	0.0	0.6	0.5	0.0	0.7
360.	0.7	0.7	0.0	0.0	0.5	0.5	0.0	0.7
MAX	2.4	2.3	2.0	2.0	1.3	1.3	2.0	2.1
DEGR.	280	80	100	100	285	65	100	85

THE HIGHEST CONCENTRATION OF 2.40 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Portero / Oak Valley Buildout AM RUN: Portero / Oak Valley Buildout AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.5	0.0	1.0	1.1	0.5	0.0	1.0	0.0
243.	0.5	0.0	1.0	1.0	0.5	0.0	1.0	0.0
246.	0.5	0.0	1.0	1.1	0.5	0.0	1.0	0.0
249.	0.5	0.0	1.1	1.1	0.5	0.0	1.1	0.0
252.	0.5	0.0	1.1	1.1	0.5	0.0	1.1	0.0
255.	0.6	0.1	1.1	1.1	0.5	0.0	1.1	0.1
258.	0.7	0.2	1.1	1.1	0.5	0.0	1.1	0.2
261.	0.7	0.2	1.1	1.1	0.5	0.0	1.1	0.2
264.	0.9	0.4	1.0	1.0	0.5	0.0	0.9	0.4
267.	1.0	0.5	0.8	0.9	0.5	0.0	0.8	0.4
270.	1.1	0.6	0.7	0.7	0.6	0.1	0.7	0.6
273.	1.2	0.8	0.5	0.5	0.7	0.2	0.5	0.8
276.	1.5	0.8	0.4	0.4	0.7	0.2	0.4	0.8
279.	1.5	0.9	0.4	0.3	0.8	0.2	0.3	0.9
282.	1.5	1.0	0.2	0.2	0.8	0.3	0.2	1.0
285.	1.5	1.0	0.1	0.1	0.8	0.3	0.1	1.0
288.	1.4	1.0	0.1	0.1	0.8	0.3	0.1	1.0
291.	1.4	0.9	0.0	0.0	0.8	0.3	0.0	0.9
294.	1.4	0.9	0.0	0.0	0.8	0.3	0.0	0.9
297.	1.2	0.9	0.0	0.0	0.8	0.3	0.0	0.9
300.	1.2	0.9	0.0	0.0	0.8	0.3	0.0	0.9
MAX	1.5	1.0	1.1	1.1	0.8	0.3	1.1	1.0
DEGR.	276	282	249	240	279	282	249	282

THE HIGHEST CONCENTRATION OF 1.50 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Portero / Oak Valley Buildout AM RUN: Portero / Oak Valley Buildout AM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

JOB: Portero / Oak Valley Buildout AM RUN: Portero / Oak Valley Buildout AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

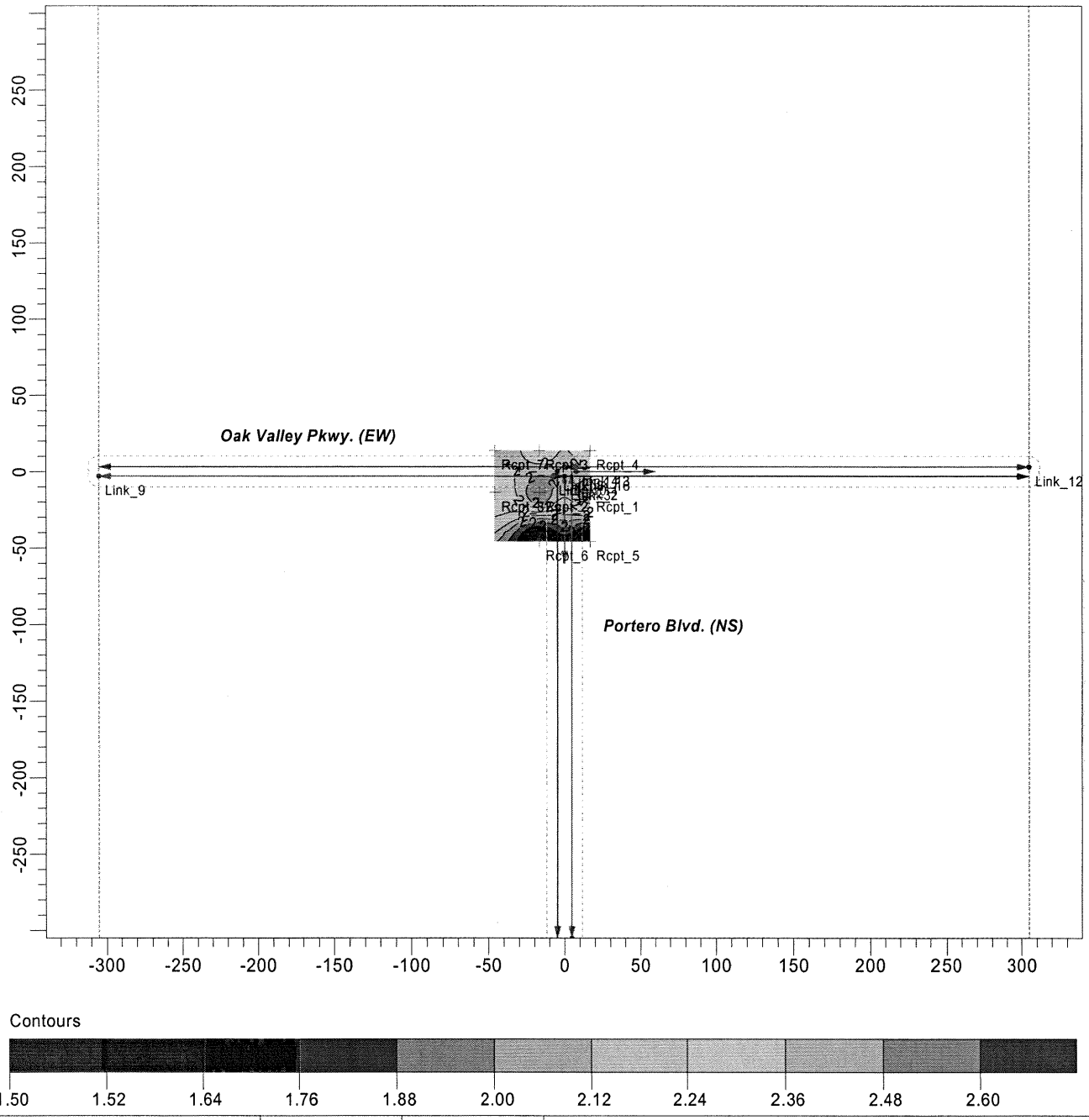
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	4.7	4.7	4.0	4.0	4.5	4.5	4.0	4.7
10.	4.7	4.7	4.0	4.0	4.5	4.7	4.0	4.7
20.	4.8	4.8	4.0	4.0	4.5	4.9	4.0	4.8
30.	4.8	4.9	4.0	4.0	4.5	5.2	4.0	4.8
40.	4.9	5.0	4.0	4.0	4.5	5.2	4.0	4.9
50.	4.9	5.4	4.0	4.0	4.5	5.0	4.0	5.0
60.	5.1	5.6	4.0	4.0	4.6	5.1	4.0	5.2
70.	5.4	5.9	4.0	4.0	4.7	5.2	4.0	5.5
80.	5.8	6.3	4.1	4.1	4.5	5.2	4.1	6.0
90.	4.9	5.5	5.2	5.2	4.0	4.5	5.2	5.5
100.	4.0	4.5	6.0	6.0	4.0	4.5	6.0	4.4
110.	4.0	4.5	5.5	5.5	4.0	4.5	5.7	4.3
120.	4.0	4.5	5.2	5.2	4.0	4.5	5.5	4.4
130.	4.0	4.5	5.4	5.0	4.0	4.5	5.4	4.4
140.	4.0	4.7	5.4	4.9	4.0	4.7	5.3	4.4
150.	4.0	4.7	5.5	4.9	4.0	4.7	5.3	4.4
160.	4.0	4.9	5.7	4.8	4.0	4.9	5.4	4.6
170.	4.0	5.2	5.9	4.7	4.0	5.2	5.2	4.4
180.	4.6	4.6	5.4	5.5	4.5	4.5	4.8	4.0
190.	5.2	4.0	4.7	5.9	5.1	4.0	4.7	4.0
200.	4.9	4.0	4.8	5.7	4.9	4.0	4.8	4.0
210.	4.7	4.0	4.9	5.5	4.7	4.0	4.9	4.0
220.	4.7	4.0	4.9	5.4	4.7	4.0	4.9	4.0
230.	4.5	4.0	5.0	5.3	4.5	4.0	5.0	4.0
240.	4.5	4.0	5.2	5.2	4.5	4.0	5.2	4.0
250.	4.5	4.0	5.6	5.5	4.5	4.0	5.6	4.0
260.	4.5	4.0	6.0	6.0	4.5	4.0	6.0	4.0
270.	5.5	5.0	5.2	5.2	4.5	4.0	5.0	4.9
280.	6.4	5.8	4.1	4.1	5.2	4.5	4.1	5.8
290.	5.9	5.4	4.0	4.0	5.3	4.8	4.0	5.4
300.	5.6	5.2	4.0	4.0	5.1	4.6	4.0	5.2
310.	5.4	5.0	4.0	4.0	5.0	4.5	4.0	5.0
320.	5.1	4.9	4.0	4.0	5.2	4.5	4.0	4.9
330.	4.9	4.8	4.0	4.0	5.1	4.5	4.0	4.8
340.	4.8	4.8	4.0	4.0	4.9	4.5	4.0	4.8
350.	4.7	4.7	4.0	4.0	4.6	4.5	4.0	4.7
360.	4.7	4.7	4.0	4.0	4.5	4.5	4.0	4.7
MAX	6.4	6.3	6.0	6.0	5.3	5.2	6.0	6.0
DEGR.	280	80	100	100	290	30	100	80

THE HIGHEST CONCENTRATION OF 6.40 PPM OCCURRED AT RECEPTOR REC1 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT GENERAL PLAN BUILDOUT PM PEAK HOUR
Portero Blvd. (NS). and Oak Valley Pkwy (EW)



COMMENTS:	MODEL:	POLLUTANT:	COMPANY NAME:	
THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 6.60PPM	**CAL3QHC**	**CO**	**Urban Crossroads Inc.**	
	MAX: **2.60**	UNITS: **ppm**	MODELER: **H.Q.**	0 100 m
	LINKS: **11**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

URBAN CROSSROADS

JOB: Portero / Oak Valley Buildout PM RUN: Portero / Oak Valley Buildout PM

DATE : 10/18/ 4
TIME : 16:18:50

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
	*	X1	Y1	X2	Y2	*
LENGTH BRG TYPE VPH EF H W V/C QUEUE						
(M) (DEG) (G/MI) (M) (M) (VEH)						
1. NB Appr.	*	4.7	-305.0	4.7	0.0	*
305. 360. AG 1284. 9.4 0.0 14.0						
2. NB Que	*	4.7	-6.2	4.7	-6.3	*
0. 180. AG 0. 100.0 0.0 14.0 0.00 0.0						
3. NB Q.Left	*	0.0	-6.2	0.0	-1517.0	*
1511. 180. AG 0. 100.0 0.0 6.0 1.53 251.8						
4. SB Dep.	*	-4.7	0.0	-4.7	-305.0	*
305. 180. AG 1268. 9.4 0.0 14.0						
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 961. 9.4 0.0 14.0						
6. EB Queue	*	-7.8	-3.1	-86.3	-3.1	*
78. 270. AG 0. 100.0 0.0 14.0 0.95 13.1						
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 961. 9.4 0.0 14.0						
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 2415. 9.4 0.0 14.0						
9. WB Queue	*	7.8	3.1	1386.4	3.1	*
1379. 90. AG 0. 100.0 0.0 14.0 1.54 229.8						
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 2431. 9.4 0.0 14.0						
11. WB Turn Q.	*	7.8	0.0	1552.2	0.0	*
1544. 90. AG 0. 100.0 0.0 6.0 1.56 257.4						

DATE : 10/18/ 4
TIME : 16:18:50

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. NB Que	*	85	38	8.0	1	1600	0.40	2	1
3. NB Q.Left	*	120	43	12.0	1284	1600	0.40	2	1
6. EB Queue	*	120	30	12.0	961	1600	0.40	2	1
9. WB Queue	*	120	50	12.0	1147	1600	0.40	2	1
11. WB Turn Q.	*	120	45	12.0	1268	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

JOB: Portero / Oak Valley Buildout PM RUN: Portero / Oak Valley Buildout PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	*	0.8	0.9	0.0	0.0	0.4	0.4	0.0	0.9
5.	*	0.8	0.8	0.0	0.0	0.4	0.5	0.0	0.8
10.	*	0.8	0.8	0.0	0.0	0.4	0.6	0.0	0.8
15.	*	0.8	0.8	0.0	0.0	0.4	0.9	0.0	0.8
20.	*	0.9	1.0	0.0	0.0	0.4	1.2	0.0	0.9
25.	*	0.9	1.0	0.0	0.0	0.4	1.2	0.0	0.9
30.	*	0.9	1.0	0.0	0.0	0.6	1.2	0.0	0.9
35.	*	0.9	1.1	0.0	0.0	0.6	1.4	0.0	0.9
40.	*	0.9	1.2	0.0	0.0	0.6	1.3	0.0	0.9
45.	*	1.0	1.3	0.0	0.0	0.6	1.3	0.0	1.0
50.	*	1.0	1.5	0.0	0.0	0.6	1.3	0.0	1.0
55.	*	1.1	1.5	0.0	0.0	0.6	1.3	0.0	1.1
60.	*	1.2	1.7	0.0	0.0	0.7	1.4	0.0	1.2
65.	*	1.4	1.8	0.0	0.0	0.7	1.3	0.0	1.4
70.	*	1.5	2.1	0.0	0.0	0.8	1.4	0.0	1.6
75.	*	1.8	2.4	0.0	0.0	0.9	1.5	0.0	2.0
80.	*	2.0	2.6	0.1	0.1	0.6	1.3	0.1	2.3
85.	*	1.8	2.4	0.5	0.5	0.3	0.9	0.5	2.2
90.	*	1.0	1.7	1.4	1.3	0.0	0.6	1.6	1.6
95.	*	0.4	1.0	2.2	2.1	0.0	0.6	2.3	0.8
100.	*	0.0	0.6	2.3	2.2	0.0	0.6	2.4	0.4
105.	*	0.0	0.6	2.0	2.0	0.0	0.6	2.1	0.4
110.	*	0.0	0.6	1.7	1.7	0.0	0.6	2.0	0.4
115.	*	0.0	0.6	1.5	1.4	0.0	0.6	2.0	0.4
120.	*	0.0	0.7	1.4	1.3	0.0	0.7	1.7	0.4
125.	*	0.0	0.7	1.5	1.2	0.0	0.7	1.6	0.4
130.	*	0.0	0.7	1.5	1.2	0.0	0.7	1.6	0.4
135.	*	0.0	0.7	1.4	1.1	0.0	0.7	1.5	0.4
140.	*	0.0	0.7	1.6	1.0	0.0	0.7	1.4	0.4
145.	*	0.0	0.9	1.5	1.0	0.0	0.9	1.5	0.5
150.	*	0.0	0.9	1.7	0.9	0.0	0.9	1.4	0.5
155.	*	0.0	1.0	1.8	0.9	0.0	1.0	1.5	0.6
160.	*	0.0	1.1	2.0	0.8	0.0	1.1	1.5	0.6
165.	*	0.0	1.2	2.0	0.8	0.0	1.2	1.5	0.6
170.	*	0.0	1.4	2.2	0.8	0.0	1.3	1.3	0.5
175.	*	0.2	1.2	2.2	1.1	0.2	1.2	1.2	0.2
180.	*	0.7	0.7	1.6	1.6	0.7	0.7	0.9	0.0
185.	*	1.2	0.2	1.2	2.1	1.2	0.2	0.9	0.0
190.	*	1.4	0.0	0.8	2.2	1.3	0.0	0.8	0.0
195.	*	1.2	0.0	0.8	2.0	1.2	0.0	0.8	0.0
200.	*	1.1	0.0	0.9	1.9	1.1	0.0	0.9	0.0
205.	*	1.0	0.0	0.9	1.8	1.0	0.0	0.9	0.0

JOB: Portero / Oak Valley Buildout PM RUN: Portero / Oak Valley Buildout PM

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.9	0.0	0.9	1.7	0.9	0.0	0.9	0.0
215.	0.8	0.0	1.0	1.5	0.8	0.0	1.0	0.0
220.	0.7	0.0	1.0	1.6	0.7	0.0	1.0	0.0
225.	0.7	0.0	1.1	1.4	0.7	0.0	1.1	0.0
230.	0.7	0.0	1.2	1.5	0.7	0.0	1.2	0.0
235.	0.7	0.0	1.2	1.5	0.7	0.0	1.2	0.0
240.	0.7	0.0	1.3	1.4	0.7	0.0	1.3	0.0
245.	0.6	0.0	1.5	1.5	0.6	0.0	1.5	0.0
250.	0.6	0.0	1.7	1.7	0.6	0.0	1.7	0.0
255.	0.6	0.0	2.0	2.0	0.6	0.0	2.0	0.0
260.	0.6	0.0	2.2	2.3	0.6	0.0	2.2	0.0
265.	1.0	0.4	2.1	2.2	0.6	0.0	2.0	0.2
270.	1.7	1.0	1.3	1.4	0.6	0.0	1.2	0.9
275.	2.4	1.8	0.5	0.5	0.9	0.3	0.5	1.6
280.	2.6	2.0	0.1	0.1	1.3	0.6	0.1	1.9
285.	2.4	1.8	0.0	0.0	1.5	0.9	0.0	1.8
290.	2.1	1.5	0.0	0.0	1.4	0.8	0.0	1.5
295.	1.8	1.4	0.0	0.0	1.3	0.7	0.0	1.4
300.	1.7	1.2	0.0	0.0	1.4	0.7	0.0	1.2
305.	1.5	1.1	0.0	0.0	1.3	0.6	0.0	1.1
310.	1.5	1.0	0.0	0.0	1.3	0.6	0.0	1.0
315.	1.3	1.0	0.0	0.0	1.3	0.6	0.0	1.0
320.	1.2	0.9	0.0	0.0	1.3	0.6	0.0	0.9
325.	1.1	0.9	0.0	0.0	1.4	0.6	0.0	0.9
330.	1.0	0.9	0.0	0.0	1.2	0.6	0.0	0.9
335.	1.0	0.9	0.0	0.0	1.2	0.4	0.0	0.9
340.	1.0	0.9	0.0	0.0	1.2	0.4	0.0	0.9
345.	0.8	0.8	0.0	0.0	0.9	0.4	0.0	0.8
350.	0.8	0.8	0.0	0.0	0.7	0.4	0.0	0.8
355.	0.8	0.8	0.0	0.0	0.5	0.4	0.0	0.8
360.	0.8	0.9	0.0	0.0	0.4	0.4	0.0	0.9
MAX	2.6	2.6	2.3	2.3	1.5	1.5	2.4	2.3
DEGR.	280	80	100	260	285	75	100	80

THE HIGHEST CONCENTRATION OF 2.60 PPM OCCURRED AT RECEPTOR REC2 .

JOB: Portero / Oak Valley Buildout PM RUN: Portero / Oak Valley Buildout PM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.5	0.0	1.1	1.1	0.5	0.0	1.1	0.0
243.	0.5	0.0	1.1	1.2	0.5	0.0	1.1	0.0
246.	0.5	0.0	1.2	1.3	0.5	0.0	1.2	0.0
249.	0.5	0.0	1.3	1.1	0.5	0.0	1.3	0.0
252.	0.5	0.0	1.3	1.3	0.5	0.0	1.3	0.0
255.	0.7	0.2	1.3	1.4	0.5	0.0	1.3	0.2
258.	0.7	0.2	1.3	1.3	0.5	0.0	1.3	0.2
261.	0.8	0.2	1.2	1.2	0.5	0.0	1.1	0.2
264.	0.9	0.4	1.1	1.1	0.5	0.0	1.1	0.4
267.	1.0	0.5	1.0	1.0	0.6	0.0	1.0	0.5
270.	1.2	0.7	0.9	0.9	0.6	0.1	0.8	0.7
273.	1.3	0.8	0.6	0.6	0.7	0.2	0.6	0.8
276.	1.4	0.9	0.5	0.5	0.8	0.2	0.5	0.8
279.	1.5	1.0	0.4	0.4	0.8	0.3	0.4	1.0
282.	1.5	1.0	0.2	0.2	0.8	0.3	0.2	1.0
285.	1.6	1.1	0.1	0.1	0.9	0.3	0.1	1.1
288.	1.5	1.1	0.1	0.1	0.9	0.4	0.1	1.1
291.	1.4	1.1	0.1	0.0	0.9	0.4	0.1	1.0
294.	1.5	1.0	0.0	0.0	0.9	0.4	0.0	1.0
297.	1.4	1.0	0.0	0.0	0.9	0.4	0.0	1.0
300.	1.4	0.9	0.0	0.0	0.9	0.4	0.0	0.9
MAX	1.6	1.1	1.3	1.4	0.9	0.4	1.3	1.1
DEGR.	285	285	249	255	285	288	249	285

THE HIGHEST CONCENTRATION OF 1.60 PPM OCCURRED AT RECEPTOR REC1 .

JOB: Portero / Oak Valley Buildout PM RUN: Portero / Oak Valley Buildout PM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

JOB: Portero / Oak Valley Buildout PM RUN: Portero / Oak Valley Buildout PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

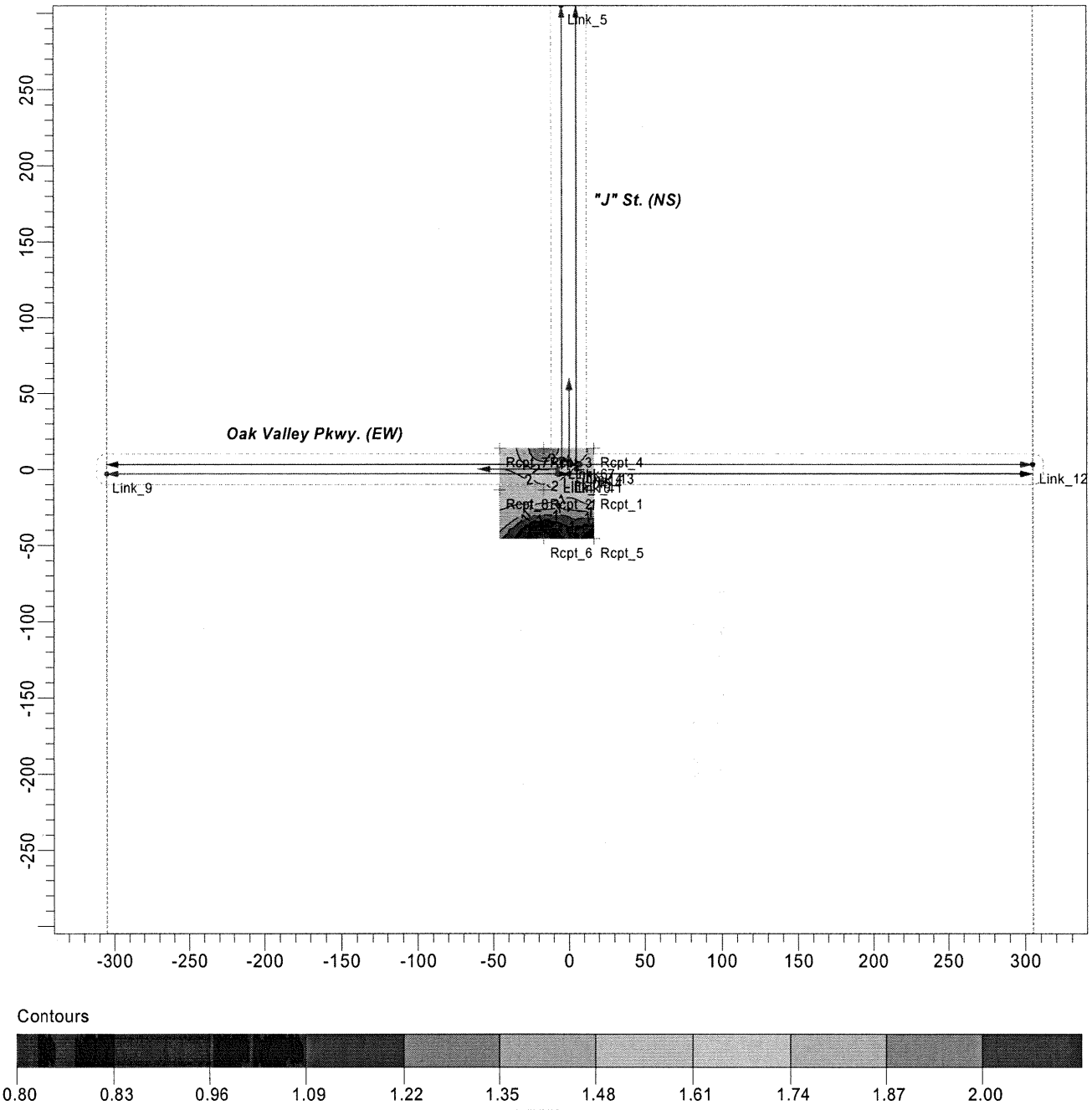
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	4.8	4.9	4.0	4.0	4.4	4.4	4.0	4.9
10.	4.8	4.8	4.0	4.0	4.4	4.6	4.0	4.8
20.	4.9	5.0	4.0	4.0	4.4	5.2	4.0	4.9
30.	4.9	5.0	4.0	4.0	4.6	5.2	4.0	4.9
40.	4.9	5.2	4.0	4.0	4.6	5.3	4.0	4.9
50.	5.0	5.5	4.0	4.0	4.6	5.3	4.0	5.0
60.	5.2	5.7	4.0	4.0	4.7	5.4	4.0	5.2
70.	5.5	6.1	4.0	4.0	4.8	5.4	4.0	5.6
80.	6.0	6.6	4.1	4.1	4.6	5.3	4.1	6.3
90.	5.0	5.7	5.4	5.3	4.0	4.6	5.6	5.6
100.	4.0	4.6	6.3	6.2	4.0	4.6	6.4	4.4
110.	4.0	4.6	5.7	5.7	4.0	4.6	6.0	4.4
120.	4.0	4.7	5.4	5.3	4.0	4.7	5.7	4.4
130.	4.0	4.7	5.5	5.2	4.0	4.7	5.6	4.4
140.	4.0	4.7	5.6	5.0	4.0	4.7	5.4	4.4
150.	4.0	4.9	5.7	4.9	4.0	4.9	5.4	4.5
160.	4.0	5.1	6.0	4.8	4.0	5.1	5.5	4.6
170.	4.0	5.4	6.2	4.8	4.0	5.3	5.3	4.5
180.	4.7	4.7	5.6	5.6	4.7	4.7	4.9	4.0
190.	5.4	4.0	4.8	6.2	5.3	4.0	4.8	4.0
200.	5.1	4.0	4.9	5.9	5.1	4.0	4.9	4.0
210.	4.9	4.0	4.9	5.7	4.9	4.0	4.9	4.0
220.	4.7	4.0	5.0	5.6	4.7	4.0	5.0	4.0
230.	4.7	4.0	5.2	5.5	4.7	4.0	5.2	4.0
240.	4.7	4.0	5.3	5.4	4.7	4.0	5.3	4.0
250.	4.6	4.0	5.7	5.7	4.6	4.0	5.7	4.0
260.	4.6	4.0	6.2	6.3	4.6	4.0	6.2	4.0
270.	5.7	5.0	5.3	5.4	4.6	4.0	5.2	4.9
280.	6.6	6.0	4.1	4.1	5.3	4.6	4.1	5.9
290.	6.1	5.5	4.0	4.0	5.4	4.8	4.0	5.5
300.	5.7	5.2	4.0	4.0	5.4	4.7	4.0	5.2
310.	5.5	5.0	4.0	4.0	5.3	4.6	4.0	5.0
320.	5.2	4.9	4.0	4.0	5.3	4.6	4.0	4.9
330.	5.0	4.9	4.0	4.0	5.2	4.6	4.0	4.9
340.	5.0	4.9	4.0	4.0	5.2	4.4	4.0	4.9
350.	4.8	4.8	4.0	4.0	4.7	4.4	4.0	4.8
360.	4.8	4.9	4.0	4.0	4.4	4.4	4.0	4.9
MAX	6.6	6.6	6.3	6.3	5.4	5.4	6.4	6.3
DEGR.	280	80	100	260	290	60	100	80

THE HIGHEST CONCENTRATION OF 6.60 PPM OCCURRED AT RECEPTOR REC2 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT GENERAL PLAN BUILDOUT AM PEAK HOUR
"J" St. (NS) / Oak Valley Pkwy. (EW)



COMMENTS: THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 6.80PPM	MODEL: **CAL3QHC**	POLLUTANT: **CO**	COMPANY NAME: **Urban Crossroads Inc.**	
			MODELER: **H.Q.**	URBAN CROSSROADS
	MAX: **2.00**	UNITS: **ppm**	0 100 m	
	LINKS: **11**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO

DATE : 10/18/ 4
TIME : 16:26:40

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LENGTH (M)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)	LINK COORDINATES (M) X1	Y1	X2	Y2
1. NB Dep.	305.	360.	AG	865.	9.4	0.0	14.0			4.7	0.0	4.7	305.0
2. SB Appr.	305.	180.	AG	1016.	9.4	0.0	14.0			-4.7	305.0	-4.7	0.0
3. SB Queue	10.	360.	AG	0.	100.0	0.0	14.0	0.17	1.6	-4.7	6.2	-4.7	15.8
4. SB Q.Left	87.	360.	AG	0.	100.0	0.0	6.0	0.95	14.5	0.0	6.2	0.0	93.3
5. EB Appr.	305.	90.	AG	1322.	9.4	0.0	14.0			-305.0	-3.1	0.0	-3.1
6. EB Queue	1061.	270.	AG	0.	100.0	0.0	14.0	1.33	176.8	-7.8	-3.1	-1068.8	-3.1
7. EB Dep.	305.	90.	AG	2073.	9.4	0.0	14.0			0.0	-3.1	305.0	-3.1
8. WB Appr.	305.	270.	AG	1785.	9.4	0.0	14.0			305.0	3.1	0.0	3.1
9. WB Queue	2861.	90.	AG	0.	100.0	0.0	14.0	1.97	476.9	7.8	3.1	2869.2	3.1
10. WB Dep.	305.	270.	AG	1185.	9.4	0.0	14.0			0.0	3.1	-305.0	3.1
11. EB Trn Q.	7.	270.	AG	0.	100.0	0.0	6.0	0.12	1.2	-7.8	0.0	-15.0	0.0

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO

DATE : 10/18/ 4
TIME : 16:26:40

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. SB Queue	*	120	38	12.0	152	1600	0.40	2	1
4. SB Q.Left	*	120	38	12.0	864	1600	0.40	2	1
6. EB Queue	*	120	38	12.0	1209	1600	0.40	2	1
9. WB Queue	*	120	38	12.0	1785	1600	0.40	2	1
11. EB Trn Q.	*	120	38	12.0	113	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	1.5	1.0	0.4	0.4	0.9	0.7	0.0	0.6
5.	1.2	1.1	0.6	0.2	0.7	0.8	0.1	0.7
10.	1.0	1.1	0.7	0.1	0.6	0.7	0.2	0.7
15.	0.9	1.2	0.8	0.0	0.5	0.8	0.3	0.8
20.	0.9	1.1	0.6	0.0	0.4	0.7	0.3	0.9
25.	0.9	1.0	0.6	0.0	0.5	0.7	0.3	1.0
30.	1.0	1.1	0.6	0.0	0.5	0.5	0.3	1.0
35.	1.0	1.1	0.5	0.0	0.5	0.4	0.3	1.0
40.	1.0	1.1	0.5	0.0	0.5	0.5	0.3	1.0
45.	1.1	1.1	0.5	0.0	0.5	0.5	0.2	0.9
50.	1.2	1.1	0.5	0.0	0.5	0.5	0.2	0.9
55.	1.2	1.1	0.5	0.0	0.6	0.6	0.2	1.0
60.	1.3	1.3	0.5	0.0	0.6	0.6	0.2	1.2
65.	1.4	1.2	0.5	0.0	0.6	0.7	0.2	1.2
70.	1.5	1.5	0.5	0.0	0.7	0.7	0.2	1.4
75.	1.6	1.5	0.5	0.1	0.5	0.7	0.2	1.3
80.	1.6	1.6	0.7	0.3	0.5	0.5	0.4	1.5
85.	1.4	1.4	1.1	0.6	0.3	0.3	0.8	1.3
90.	1.0	1.1	1.5	1.0	0.1	0.2	1.2	1.0
95.	0.6	0.6	1.9	1.4	0.0	0.0	1.6	0.6
100.	0.3	0.3	2.0	1.6	0.0	0.0	1.7	0.3
105.	0.1	0.1	1.8	1.6	0.0	0.0	1.6	0.1
110.	0.0	0.0	1.7	1.5	0.0	0.0	1.2	0.0
115.	0.0	0.0	1.6	1.3	0.0	0.0	1.0	0.0
120.	0.0	0.0	1.4	1.3	0.0	0.0	0.8	0.0
125.	0.0	0.0	1.3	1.1	0.0	0.0	0.8	0.0
130.	0.0	0.0	1.2	1.1	0.0	0.0	0.7	0.0
135.	0.0	0.0	1.0	1.1	0.0	0.0	0.7	0.0
140.	0.0	0.0	1.0	1.0	0.0	0.0	0.7	0.0
145.	0.0	0.0	0.7	1.0	0.0	0.0	0.6	0.0
150.	0.0	0.0	0.8	1.0	0.0	0.0	0.6	0.0
155.	0.0	0.0	0.7	1.0	0.0	0.0	0.6	0.0
160.	0.0	0.0	0.7	0.9	0.0	0.0	0.6	0.0
165.	0.0	0.0	0.6	0.8	0.0	0.0	0.6	0.0
170.	0.0	0.0	0.6	0.9	0.0	0.0	0.6	0.0
175.	0.0	0.0	0.6	0.9	0.0	0.0	0.6	0.0
180.	0.0	0.0	0.6	0.9	0.0	0.0	0.6	0.0
185.	0.0	0.0	0.6	0.9	0.0	0.0	0.6	0.0
190.	0.0	0.0	0.6	0.9	0.0	0.0	0.6	0.0
195.	0.0	0.0	0.6	0.8	0.0	0.0	0.6	0.0
200.	0.0	0.0	0.6	1.0	0.0	0.0	0.6	0.0
205.	0.0	0.0	0.6	1.0	0.0	0.0	0.6	0.0

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.0	0.0	0.6	1.0	0.0	0.0	0.6	0.0
215.	0.0	0.0	0.6	1.1	0.0	0.0	0.6	0.0
220.	0.0	0.0	0.7	1.0	0.0	0.0	0.7	0.0
225.	0.0	0.0	0.7	1.3	0.0	0.0	0.7	0.0
230.	0.0	0.0	0.7	1.2	0.0	0.0	0.7	0.0
235.	0.0	0.0	0.8	1.3	0.0	0.0	0.8	0.0
240.	0.0	0.0	0.9	1.3	0.0	0.0	0.9	0.0
245.	0.0	0.0	0.9	1.4	0.0	0.0	0.9	0.0
250.	0.0	0.0	0.9	1.4	0.0	0.0	0.9	0.0
255.	0.0	0.0	1.1	1.6	0.0	0.0	1.1	0.0
260.	0.1	0.1	1.0	1.5	0.0	0.0	1.0	0.1
265.	0.4	0.4	0.9	1.4	0.0	0.0	0.9	0.4
270.	0.6	0.6	0.7	1.1	0.1	0.1	0.6	0.6
275.	1.1	0.9	0.3	0.7	0.2	0.2	0.3	0.9
280.	1.1	1.1	0.1	0.6	0.3	0.3	0.1	1.1
285.	1.1	1.1	0.0	0.4	0.4	0.4	0.0	1.1
290.	1.1	1.0	0.0	0.4	0.4	0.4	0.0	1.0
295.	0.9	1.0	0.0	0.4	0.4	0.4	0.0	1.0
300.	1.2	0.8	0.0	0.4	0.4	0.4	0.0	0.8
305.	1.1	0.8	0.0	0.4	0.4	0.4	0.0	0.8
310.	1.2	0.7	0.0	0.4	0.4	0.4	0.0	0.7
315.	1.2	0.7	0.0	0.5	0.4	0.4	0.0	0.7
320.	1.3	0.7	0.0	0.5	0.3	0.3	0.0	0.7
325.	1.4	0.7	0.0	0.5	0.3	0.3	0.0	0.7
330.	1.4	0.7	0.0	0.5	0.4	0.3	0.0	0.7
335.	1.5	0.7	0.0	0.6	0.6	0.3	0.0	0.7
340.	1.5	0.6	0.0	0.7	0.7	0.3	0.0	0.6
345.	1.6	0.5	0.0	0.7	0.8	0.3	0.0	0.5
350.	1.6	0.6	0.1	0.7	0.9	0.4	0.0	0.5
355.	1.4	0.8	0.3	0.5	0.9	0.6	0.0	0.5
360.	1.5	1.0	0.4	0.4	0.9	0.7	0.0	0.6
MAX	1.6	1.6	2.0	1.6	0.9	0.8	1.7	1.5
DEGR.	75	80	100	255	0	15	100	80

THE HIGHEST CONCENTRATION OF 2.00 PPM OCCURRED AT RECEPTOR REC3 .

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.0	0.0	0.7	1.2	0.0	0.0	0.7	0.0
243.	0.0	0.0	0.7	1.2	0.0	0.0	0.7	0.0
246.	0.0	0.0	0.7	1.3	0.0	0.0	0.7	0.0
249.	0.0	0.0	0.9	1.1	0.0	0.0	0.9	0.0
252.	0.0	0.0	0.9	1.1	0.0	0.0	0.9	0.0
255.	0.1	0.1	0.9	1.4	0.0	0.0	0.9	0.1
258.	0.1	0.1	0.9	1.4	0.0	0.0	0.8	0.1
261.	0.3	0.3	0.8	1.2	0.0	0.0	0.8	0.3
264.	0.3	0.3	0.7	1.2	0.0	0.0	0.7	0.3
267.	0.5	0.4	0.7	1.2	0.0	0.0	0.7	0.4
270.	0.5	0.6	0.5	0.9	0.1	0.1	0.5	0.6
273.	0.7	0.6	0.5	0.9	0.2	0.2	0.5	0.6
276.	0.8	0.8	0.3	0.7	0.2	0.2	0.3	0.8
279.	0.8	0.8	0.3	0.6	0.2	0.2	0.2	0.8
282.	0.9	0.8	0.2	0.6	0.2	0.2	0.1	0.8
285.	0.9	0.9	0.1	0.5	0.3	0.3	0.1	0.8
288.	1.0	0.8	0.0	0.4	0.3	0.3	0.0	0.8
291.	0.9	0.8	0.0	0.4	0.3	0.3	0.0	0.8
294.	1.0	0.8	0.0	0.4	0.3	0.3	0.0	0.8
297.	1.2	0.8	0.0	0.4	0.3	0.3	0.0	0.8
300.	1.0	0.8	0.0	0.4	0.3	0.3	0.0	0.8
MAX	1.2	0.9	0.9	1.4	0.3	0.3	0.9	0.8
DEGR.	297	285	249	255	285	285	249	276

THE HIGHEST CONCENTRATION OF 1.40 PPM OCCURRED AT RECEPTOR REC4 .

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

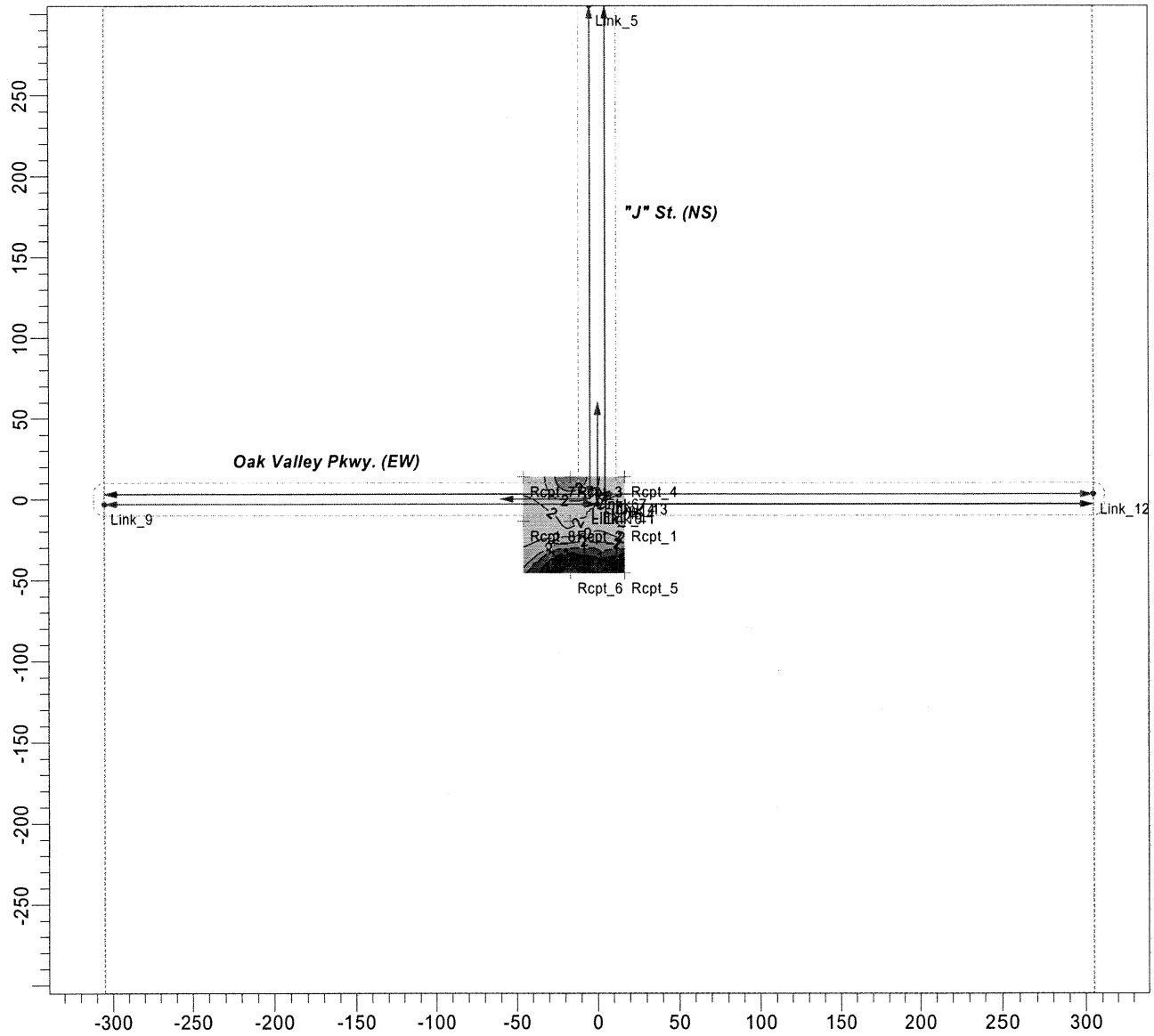
WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	5.6	5.2	4.5	4.5	5.0	5.0	4.0	4.7
10.	4.9	5.7	5.1	4.0	4.6	5.3	4.3	5.0
20.	5.0	5.4	4.8	4.0	4.5	4.7	4.5	5.2
30.	5.1	5.3	4.7	4.0	4.6	4.7	4.4	5.1
40.	5.2	5.2	4.5	4.0	4.7	4.7	4.4	5.1
50.	5.3	5.2	4.5	4.0	4.7	4.7	4.3	5.1
60.	5.5	5.4	4.5	4.0	4.7	4.7	4.3	5.3
70.	5.8	5.7	4.5	4.0	4.9	4.9	4.3	5.7
80.	6.4	6.4	4.6	4.1	4.7	4.8	4.4	6.4
90.	5.3	5.5	5.9	5.3	4.0	4.1	5.8	5.5
100.	4.1	4.1	6.8	6.4	4.0	4.0	6.4	4.1
110.	4.0	4.0	6.2	5.9	4.0	4.0	5.5	4.0
120.	4.0	4.0	5.7	5.5	4.0	4.0	5.0	4.0
130.	4.0	4.0	5.3	5.2	4.0	4.0	4.8	4.0
140.	4.0	4.0	5.1	5.1	4.0	4.0	4.7	4.0
150.	4.0	4.0	4.7	5.0	4.0	4.0	4.6	4.0
160.	4.0	4.0	4.6	5.0	4.0	4.0	4.6	4.0
170.	4.0	4.0	4.6	5.0	4.0	4.0	4.6	4.0
180.	4.0	4.0	4.6	5.0	4.0	4.0	4.6	4.0
190.	4.0	4.0	4.6	5.0	4.0	4.0	4.6	4.0
200.	4.0	4.0	4.6	5.0	4.0	4.0	4.6	4.0
210.	4.0	4.0	4.6	5.1	4.0	4.0	4.6	4.0
220.	4.0	4.0	4.7	5.2	4.0	4.0	4.7	4.0
230.	4.0	4.0	4.8	5.3	4.0	4.0	4.8	4.0
240.	4.0	4.0	4.9	5.5	4.0	4.0	4.9	4.0
250.	4.0	4.0	5.1	5.6	4.0	4.0	5.1	4.0
260.	4.0	4.0	5.5	6.0	4.0	4.0	5.5	4.0
270.	4.9	4.9	4.8	5.3	4.0	4.0	4.8	4.9
280.	5.6	5.5	4.0	4.4	4.5	4.5	4.0	5.5
290.	5.3	5.2	4.0	4.4	4.6	4.6	4.0	5.2
300.	5.2	5.0	4.0	4.4	4.5	4.5	4.0	5.0
310.	5.4	4.8	4.0	4.5	4.4	4.4	4.0	4.8
320.	5.3	4.7	4.0	4.6	4.4	4.4	4.0	4.7
330.	5.5	4.7	4.0	4.6	4.5	4.4	4.0	4.7
340.	5.8	4.7	4.0	4.8	4.9	4.4	4.0	4.7
350.	6.0	4.6	4.0	5.0	5.4	4.4	4.0	4.6
360.	5.6	5.2	4.5	4.5	5.0	5.0	4.0	4.7
MAX	6.4	6.4	6.8	6.4	5.4	5.3	6.4	6.4
DEGR.	80	80	100	100	350	10	100	80

THE HIGHEST CONCENTRATION OF 6.80 PPM OCCURRED AT RECEPTOR REC3 .

PROJECT TITLE:

SUMMERWIND RANCH DEVELOPMENT GENERAL PLAN BUILDOUT PM PEAK HOUR
"J" St. (NS) / Oak Valley Pkwy. (EW)



Contours

COMMENTS:	MODEL:	POLLUTANT:	COMPANY NAME:	
THE MAX 1-HOUR CO CONCENTRATION IS CALCULATED BY ADDING THE BACKGROUND CO LEVEL TO THE MAX VALUE. IN THIS INSTANCE THE MAX 1-HOUR CO VALUE IS 7.00PPM	**CAL3QHC**	**CO**	**Urban Crossroads Inc.**	
			MODELER: **H.Q.**	
	MAX: **2.20**	UNITS: **ppm**	0 100 m	URBAN CROSSROADS
	LINKS: **11**	RECEPTORS: **8**	DATE: **10/27/2004**	PROJECT / PLOT NO.: **JN: 02346**

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM

DATE : 10/18/ 4
TIME : 16:29:46

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*
LENGTH BRG TYPE VPH EF		H W V/C QUEUE				
	*	X1	Y1	X2	Y2	*
(M) (DEG) (G/MI)		(M) (M) (VEH)				
1. NB Dep.	*	4.7	0.0	4.7	305.0	*
305. 360. AG 1146. 9.4		0.0 14.0				
2. SB Appr.	*	-4.7	305.0	-4.7	0.0	*
305. 180. AG 861. 9.4		0.0 14.0				
3. SB Queue	*	-4.7	6.2	-4.7	10.6	*
4. 360. AG 0. 100.0		0.0 14.0 0.11	0.7			
4. SB Q.Left	*	0.0	6.2	0.0	126.5	*
120. 360. AG 0. 100.0		0.0 6.0 1.00	20.0			
5. EB Appr.	*	-305.0	-3.1	0.0	-3.1	*
305. 90. AG 1498. 9.4		0.0 14.0				
6. EB Queue	*	-7.8	-3.1	-1090.4	-3.1	*
1083. 270. AG 0. 100.0		0.0 14.0 1.31	180.4			
7. EB Dep.	*	0.0	-3.1	305.0	-3.1	*
305. 90. AG 2061. 9.4		0.0 14.0				
8. WB Appr.	*	305.0	3.1	0.0	3.1	*
305. 270. AG 2207. 9.4		0.0 14.0				
9. WB Queue	*	7.8	3.1	4728.7	3.1	*
4721. 90. AG 0. 100.0		0.0 14.0 2.96	786.8			
10. WB Dep.	*	0.0	3.1	-305.0	3.1	*
305. 270. AG 1359. 9.4		0.0 14.0				
11. EB Trn Q.	*	-7.8	0.0	-437.3	0.0	*
429. 270. AG 1. 100.0		0.0 6.0 3.25	71.6			

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM

DATE : 10/18/ 4
TIME : 16:29:46

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. SB Queue	*	120	21	12.0	126	1600	0.40	2	1
4. SB Q.Left	*	120	51	12.0	735	1600	0.40	2	1
6. EB Queue	*	120	30	12.0	1326	1600	0.40	2	1
9. WB Queue	*	120	50	12.0	2207	1600	0.40	2	1
11. EB Trn Q.	*	120	102	12.0	172	1600	0.40	2	1

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z	*
1. REC 1 (SE CORNER)	*	16.7	-13.7	1.8	*
2. REC 2 (SW CORNER)	*	-16.7	-13.7	1.8	*
3. REC 3 (NW CORNER)	*	-16.7	13.7	1.8	*
4. REC 4 (NE CORNER)	*	16.7	13.7	1.8	*
5. REC 5 (E MID-MAIN)	*	16.7	-45.7	1.8	*
6. REC 6 (W MID-MAIN)	*	-16.7	-45.7	1.8	*
7. REC 7 (N MID-LOCAL)	*	-45.7	13.7	1.8	*
8. REC 8 (S MID-LOCAL)	*	-45.7	-13.7	1.8	*

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	1.4	1.2	0.5	0.4	0.8	0.7	0.0	0.7
5.	1.3	1.3	0.6	0.3	0.8	0.9	0.2	0.9
10.	1.1	1.4	0.7	0.1	0.7	0.8	0.2	0.9
15.	1.0	1.4	0.7	0.0	0.5	0.9	0.3	1.1
20.	1.0	1.3	0.7	0.0	0.4	0.7	0.4	1.1
25.	1.0	1.3	0.6	0.0	0.6	0.8	0.3	1.0
30.	1.1	1.3	0.6	0.0	0.6	0.5	0.3	1.0
35.	1.1	1.3	0.6	0.0	0.6	0.6	0.3	1.0
40.	1.1	1.2	0.6	0.0	0.6	0.6	0.3	1.1
45.	1.2	1.3	0.5	0.0	0.6	0.6	0.2	1.0
50.	1.3	1.2	0.4	0.0	0.6	0.6	0.2	1.0
55.	1.3	1.2	0.4	0.0	0.6	0.6	0.2	1.1
60.	1.4	1.4	0.4	0.0	0.6	0.6	0.2	1.2
65.	1.6	1.5	0.4	0.0	0.6	0.6	0.2	1.3
70.	1.6	1.6	0.4	0.0	0.7	0.7	0.2	1.5
75.	1.8	1.7	0.5	0.1	0.6	0.7	0.3	1.7
80.	1.8	1.8	0.7	0.3	0.5	0.6	0.5	1.7
85.	1.5	1.6	1.0	0.6	0.3	0.4	0.9	1.4
90.	1.1	1.2	1.5	1.1	0.2	0.2	1.3	1.0
95.	0.6	0.6	1.9	1.6	0.0	0.0	1.8	0.6
100.	0.3	0.3	2.2	1.8	0.0	0.0	1.8	0.3
105.	0.1	0.1	2.1	1.8	0.0	0.0	1.7	0.1
110.	0.0	0.0	1.9	1.7	0.0	0.0	1.4	0.0
115.	0.0	0.0	1.8	1.5	0.0	0.0	1.1	0.0
120.	0.0	0.0	1.6	1.4	0.0	0.0	1.0	0.0
125.	0.0	0.0	1.4	1.3	0.0	0.0	1.0	0.0
130.	0.0	0.0	1.3	1.2	0.0	0.0	0.8	0.0
135.	0.0	0.0	1.1	1.2	0.0	0.0	0.8	0.0
140.	0.0	0.0	1.0	1.2	0.0	0.0	0.7	0.0
145.	0.0	0.0	0.9	1.1	0.0	0.0	0.7	0.0
150.	0.0	0.0	0.9	1.1	0.0	0.0	0.7	0.0
155.	0.0	0.0	0.8	1.1	0.0	0.0	0.7	0.0
160.	0.0	0.0	0.7	1.0	0.0	0.0	0.6	0.0
165.	0.0	0.0	0.6	1.0	0.0	0.0	0.6	0.0
170.	0.0	0.0	0.6	1.0	0.0	0.0	0.6	0.0
175.	0.0	0.0	0.7	1.0	0.0	0.0	0.7	0.0
180.	0.0	0.0	0.7	1.0	0.0	0.0	0.7	0.0
185.	0.0	0.0	0.7	1.0	0.0	0.0	0.7	0.0
190.	0.0	0.0	0.6	1.0	0.0	0.0	0.6	0.0
195.	0.0	0.0	0.6	1.0	0.0	0.0	0.6	0.0
200.	0.0	0.0	0.6	1.1	0.0	0.0	0.6	0.0
205.	0.0	0.0	0.7	1.1	0.0	0.0	0.7	0.0

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
210.	0.0	0.0	0.7	1.1	0.0	0.0	0.7	0.0
215.	0.0	0.0	0.7	1.3	0.0	0.0	0.7	0.0
220.	0.0	0.0	0.7	1.2	0.0	0.0	0.7	0.0
225.	0.0	0.0	0.8	1.4	0.0	0.0	0.8	0.0
230.	0.0	0.0	0.9	1.4	0.0	0.0	0.9	0.0
235.	0.0	0.0	0.9	1.5	0.0	0.0	0.9	0.0
240.	0.0	0.0	0.9	1.6	0.0	0.0	0.9	0.0
245.	0.0	0.0	1.1	1.5	0.0	0.0	1.1	0.0
250.	0.0	0.0	1.1	1.6	0.0	0.0	1.1	0.0
255.	0.0	0.0	1.2	1.7	0.0	0.0	1.2	0.0
260.	0.2	0.2	1.2	1.7	0.0	0.0	1.2	0.1
265.	0.4	0.4	1.0	1.6	0.0	0.0	1.0	0.4
270.	0.8	0.8	0.8	1.3	0.1	0.1	0.7	0.7
275.	1.1	1.1	0.4	1.0	0.2	0.2	0.4	1.1
280.	1.3	1.3	0.2	0.7	0.4	0.3	0.2	1.2
285.	1.3	1.3	0.0	0.5	0.5	0.4	0.0	1.2
290.	1.2	1.1	0.0	0.5	0.5	0.5	0.0	1.1
295.	1.2	1.0	0.0	0.5	0.5	0.5	0.0	1.0
300.	1.2	1.0	0.0	0.5	0.4	0.4	0.0	1.0
305.	1.4	0.9	0.0	0.5	0.4	0.4	0.0	0.9
310.	1.2	0.8	0.0	0.5	0.4	0.4	0.0	0.8
315.	1.3	0.8	0.0	0.5	0.4	0.4	0.0	0.8
320.	1.6	0.8	0.0	0.6	0.4	0.4	0.0	0.8
325.	1.5	0.7	0.0	0.6	0.4	0.4	0.0	0.7
330.	1.5	0.7	0.0	0.6	0.5	0.4	0.0	0.7
335.	1.5	0.7	0.0	0.6	0.6	0.4	0.0	0.7
340.	1.6	0.7	0.0	0.7	0.7	0.3	0.0	0.7
345.	1.7	0.7	0.0	0.8	0.9	0.4	0.0	0.7
350.	1.7	0.8	0.1	0.7	0.9	0.5	0.0	0.7
355.	1.7	1.0	0.2	0.7	0.9	0.6	0.0	0.7
360.	1.4	1.2	0.5	0.4	0.8	0.7	0.0	0.7
MAX	1.8	1.8	2.2	1.8	0.9	0.9	1.8	1.7
DEGR.	75	80	100	100	345	15	95	75

THE HIGHEST CONCENTRATION OF 2.20 PPM OCCURRED AT RECEPTOR REC3 .

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 0.0 PPM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 240.-300.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
240.	0.0	0.0	0.9	1.4	0.0	0.0	0.9	0.0
243.	0.0	0.0	0.9	1.5	0.0	0.0	0.9	0.0
246.	0.0	0.0	0.9	1.4	0.0	0.0	0.9	0.0
249.	0.0	0.0	0.9	1.4	0.0	0.0	0.9	0.0
252.	0.0	0.0	1.0	1.5	0.0	0.0	1.0	0.0
255.	0.1	0.1	1.0	1.4	0.0	0.0	1.0	0.1
258.	0.2	0.2	1.0	1.4	0.0	0.0	1.0	0.1
261.	0.3	0.3	0.9	1.3	0.0	0.0	0.9	0.3
264.	0.4	0.4	0.8	1.2	0.0	0.0	0.8	0.4
267.	0.5	0.5	0.7	1.2	0.0	0.0	0.7	0.5
270.	0.6	0.6	0.6	1.1	0.1	0.1	0.6	0.6
273.	0.8	0.8	0.5	0.9	0.2	0.2	0.5	0.8
276.	0.9	0.8	0.3	0.7	0.2	0.2	0.3	0.8
279.	0.9	0.9	0.3	0.7	0.2	0.2	0.3	0.9
282.	1.1	1.0	0.2	0.6	0.3	0.3	0.2	1.0
285.	1.1	1.0	0.1	0.5	0.3	0.3	0.1	1.0
288.	1.1	1.0	0.0	0.4	0.4	0.4	0.0	1.0
291.	1.0	1.0	0.0	0.4	0.4	0.4	0.0	1.0
294.	1.0	1.0	0.0	0.4	0.4	0.4	0.0	1.0
297.	1.1	0.8	0.0	0.4	0.4	0.4	0.0	0.8
300.	1.2	0.8	0.0	0.5	0.4	0.4	0.0	0.8
MAX	1.2	1.0	1.0	1.5	0.4	0.4	1.0	1.0
DEGR.	300	282	252	243	288	288	252	282

THE HIGHEST CONCENTRATION OF 1.50 PPM OCCURRED AT RECEPTOR REC4 .

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM

METEOROLOGICAL VARIABLES

U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES
MIXH = 1000. M AMB = 4.0 PPM

JOB: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM RUN: J St. (NS) / Oak Valley Pkwy(EW) GPBO PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8
0.	5.7	5.3	4.5	4.5	5.3	4.9	4.0	4.7
10.	5.0	5.8	5.1	4.0	4.6	5.3	4.4	5.1
20.	5.1	5.5	4.8	4.0	4.6	4.9	4.5	5.2
30.	5.2	5.2	4.6	4.0	4.6	4.7	4.4	5.1
40.	5.3	5.5	4.6	4.0	4.7	4.7	4.4	5.3
50.	5.3	5.4	4.6	4.0	4.8	4.8	4.4	5.3
60.	5.6	5.4	4.5	4.0	4.8	4.8	4.3	5.4
70.	6.0	5.9	4.5	4.0	5.0	5.0	4.2	5.9
80.	6.7	6.7	4.5	4.1	4.8	4.9	4.4	6.5
90.	5.4	5.6	6.0	5.5	4.0	4.1	6.0	5.6
100.	4.1	4.1	7.0	6.7	4.0	4.0	6.7	4.1
110.	4.0	4.0	6.3	6.0	4.0	4.0	5.6	4.0
120.	4.0	4.0	5.9	5.6	4.0	4.0	5.1	4.0
130.	4.0	4.0	5.5	5.4	4.0	4.0	4.9	4.0
140.	4.0	4.0	5.2	5.2	4.0	4.0	4.8	4.0
150.	4.0	4.0	4.9	5.1	4.0	4.0	4.8	4.0
160.	4.0	4.0	4.7	5.1	4.0	4.0	4.8	4.0
170.	4.0	4.0	4.7	5.1	4.0	4.0	4.7	4.0
180.	4.0	4.0	4.7	5.1	4.0	4.0	4.7	4.0
190.	4.0	4.0	4.7	5.1	4.0	4.0	4.7	4.0
200.	4.0	4.0	4.8	5.2	4.0	4.0	4.8	4.0
210.	4.0	4.0	4.8	5.2	4.0	4.0	4.8	4.0
220.	4.0	4.0	4.8	5.4	4.0	4.0	4.8	4.0
230.	4.0	4.0	4.9	5.6	4.0	4.0	4.9	4.0
240.	4.0	4.0	5.1	5.7	4.0	4.0	5.1	4.0
250.	4.0	4.0	5.3	5.9	4.0	4.0	5.3	4.0
260.	4.0	4.0	5.8	6.3	4.0	4.0	5.8	4.0
270.	5.1	5.0	5.0	5.5	4.0	4.0	4.9	4.9
280.	5.8	5.8	4.0	4.5	4.6	4.5	4.0	5.8
290.	5.4	5.4	4.0	4.5	4.7	4.7	4.0	5.4
300.	5.3	5.0	4.0	4.5	4.6	4.6	4.0	5.0
310.	5.3	4.9	4.0	4.6	4.5	4.5	4.0	4.9
320.	5.5	4.9	4.0	4.6	4.5	4.5	4.0	4.9
330.	5.7	4.7	4.0	4.8	4.5	4.4	4.0	4.7
340.	5.9	4.7	4.0	4.9	4.9	4.4	4.0	4.7
350.	6.2	4.7	4.0	5.2	5.5	4.4	4.0	4.7
360.	5.7	5.3	4.5	4.5	5.3	4.9	4.0	4.7
MAX	6.7	6.7	7.0	6.7	5.5	5.3	6.7	6.5
DEGR.	80	80	100	100	350	10	100	80

THE HIGHEST CONCENTRATION OF 7.00 PPM OCCURRED AT RECEPTOR REC3 .

APPENDIX G

LIST OF ZERO-VOC ARCHITECTURAL
COATINGS MANUFACTURERS

Manufacturers of Zero-VOC Coatings

Manufacturer	Type of Coatings							
	Flat	Non-Flat, Satin	Non-Flat, Eggshell	Non-Flat, Semi-Gloss	Primer, Sealer, Undercoater	Interior	Exterior	Phone Number
American Formulators Manufacturers	X		X	X		YES		619-239-0321
Benjamin Moore & Co.	X	X	X	X	X	YES		213-722-3484
Bruening Paints	X	X	X			YES		800-852-3636
Devoe Paint	X		X	X	X	YES		800-654-2616
Dunn Edwards	X		X	X	X	YES		213-771-3330
Frazee Industries	X	X	X	X	X	YES		619-276-9500
Galaxy-2010	X	X	X			YES	YES	973-790-7641
Griggs Paint & Silkscreen	X	X	X	X	X	YES	YES	602-243-3293
ICI Paints	X	X	X	X*	X	YES	YES	213-888-8888
Miller Paint	X	X	X		X	YES		503-255-0190
NonToxICA	X	X				YES	YES	800-731-5007
Richards Paints	X	X	X			YES		800-432-0983
Rodda Paints	X	X	X		X	YES		503-244-7512
Sampson Coatings	X	X	X	X	X	YES	YES	804-233-9325
Sherwin Williams	X		X	X	X	YES		800-336-1110
Spectra-Tone Paint	X		X	X		YES		800-272-4687

* - Not Available for Exterior Use

As of April 30, 1998

If you are a manufacturer of zero-VOC coatings and are not on this list, please contact Naveen Berry at 909-396-2363.