Section IV. I TRANSPORTATION/TRAFFIC

The traffic consultant made some errors in Appendix J of the EIR. In the Traffic Consultant's Appendix A-3, on the first count taken 10/17/2002 for La Tuna Canyon, the consultant scratches out NB and puts WB for Westbound. The direction is actually Eastbound, not Westbound. The traffic consultant makes a similar error on the same page, scratching out SB and putting EB for Eastbound. This direction is actually Westbound, not Eastbound. On the next page, In the Traffic Consultant's Appendix A-3, on the second count taken 10/24/2002 for La Tuna Canyon, the consultant scratches out NB and puts WB for Westbound. The direction is actually Eastbound, not Westbound. The traffic consultant makes a similar error on the same page, scratching out SB and putting EB for Eastbound. 149-189

On Page IV.I-7, the second automated traffic count is listed as occurring on Friday, October 25, 2002. The actual date of the count was Thursday, October 24. These are a few errors on dates and directions that we found in the EIR. We do not know what other errors are contained in the EIR by this consultant. Some may be very serious. These corrections must be made and the Traffic Consultant's work must be review for further errors, especially significant errors that may influence the findings of significance that this project has on traffic.

The applicant should not be allowed to build the project with private streets. It seems like this is a way for the applicant to build substandard roads or streets within the project. A road or street that is too narrow could cause traffic problems especially in an emergency like a fire where residents will have to leave quickly while emergency personnel are trying to enter the area. The residents will be relying on the city for public services such as police, fire, and waste removal. A gated community will impede access to these services that residents will depend on. 149-190

Also, if the residents of the development decide to remove the gates, the street maintenance will then revert back to the city. There was a gated emergency access in the Crystal View development which was subsequently petitioned to be opened successfully by the residents. If these streets or roads in the project are below the standards that are required for public streets, the city will be burdened with this problem. 149-191

The EIR does not address the impacts if the emergency access gate in Development Area A is removed. There seems to be no legal constraint that would prohibit residents of Development Area A to eliminate the emergency access gate and use this as a normal ingress or egress route out of that part of the development. As this event is not a remote possibility if the removal of the emergency gate is not prohibited, the impacts must be discussed as a likely possibility. Removal of the emergency gate in the Development A area would probably have significant impact on the residents where this traffic would traverse. 149-192

Also, the EIR must discuss the potential traffic impact on the area if the emergency access gate will be used by residents escaping Development Area A in a natural disaster like a wildfire. This emergency access gate is built for the specific purpose of exiting the development in an emergency. As it is built for this purpose, it is likely that it will be used. The EIR must discuss 149-193

the impact of this gate use on the residents in the adjoining neighborhoods and also in an emergency scenario how many residents could actually use this gate to escape. The EIR must consider the width of the roads on the escape route(s) to Foothill Boulevard and the number of other neighborhood residents who will also be escaping the area. This is important to determine if the emergency access gate in Development A will allow enough residents out in a timely fashion without creating a traffic bottleneck that will trap residents in the Development. We do not want to read in the paper about residents trying to escape a fire that were trapped in their vehicles while trying to escape through the emergency access gate. 149-193

The new road that is built into the Development Area A that connects with La Tuna Canyon Road must be at least 60 feet wide. It will serve 210 households and is a collector street. It needs to be a least 4 lanes wide, 2 lanes in each direction, plus turn pockets where it intersects La Tuna Canyon Road. The Duke Project, even though it only proposed a development with 41 households, had the project access road 60 feet wide. It said in the Duke EIR, "The new access road would be approximately 60 feet in width (right of way), and would commence on the north side of La Tuna Canyon Road approximately 660 feet easterly of the Foothill Freeway on and off-ramps. The entry road would then proceed westerly approximately 1,320 feet at an average grade of approximately 4 ½ percent until it would intersect the proposed internal loop street (proposed as a 60-foot right of way)." 149-194

The access road must be at least 60 feet wide into Development Area A for safety reasons. A road this size is necessary both to facilitate the flow of traffic in the area and to help during an emergency evacuation of the development. If the emergency access route is cut-off, there will be hundreds of vehicles trying to exit this one point. A wide access road is necessary to accommodate exiting traffic. This must be recommended as a mitigation measure if the project is built.

Also, the grade of this access road must not exceed 10 percent. LAMC **§17.05.D.** says, "

D. Streets.

1. **Right of Way and Roadway Widths.** All streets and alleys shall be designed to conform with standards adopted by the Commission.
2. **Street Grades. Grades of all streets shall be as flat as consistent with adequate surface drainage requirements and the approved development of the proposed subdivision.** The minimum grade permitted shall be four–tenths of one per cent, except in extremely flat areas where a grade of two–tenths of one per cent may be used. The maximum grade permitted for major and secondary highways shall be six per cent, except where a grade not to exceed ten percent will eliminate excessive curvature, fill or excavation. **The maximum grade permitted for collector streets shall be ten per cent** and for local streets shall be 15 per cent. Variations from these requirements may be granted by the Advisory Agency upon recommendation by the City Engineer in individual cases in accordance with the provisions of Section 17.11. 149-195

Changes in grade greater than four–tenths of one per cent shall be connected by vertical curves. The length of vertical curves shall conform to standards for sight distance and riding qualities established by the City Engineer.

It is necessary that the collector road in and out of Development Area A have a grade in excess of 10 percent for safety reasons for the ingress and egress out of the development. 149-195

In Appendix J, a letter dated July 17, 2003 from Sergio Valdez, Transportation Engineer, Los Angeles Department of Transportation to Emily Gabel-Luddy, Associate Zoning Administrator, Department of City Planning, shows that a significant adverse impact on traffic will occur if the project is built. Please refer to Attachment A of this letter in Appendix J. It shows that in year 2009, that the traffic at Tujunga Canyon Blvd & Foothill will go from an E LOS without the project to a F LOS with the project. This is going from the level E with represents near capacity and capacity operation-where all drivers wait through more than one red signal and frequently wait through several to level F that represents jammed conditions and traffic is backed up from a downstream location on one of the streets that restricts or prevents movement of traffic through the intersection. In the same attachment, it shows that in year 2009, that the traffic at Tujunga Canyon Blvd /Honolulu Ave & La Tuna Canyon Road will go from an A LOS without the project to a B LOS with the project. 149-196

Each of these represents a significant impact by the development on the traffic in the area. These impacts are not mitigated or have been proposed for mitigation. For the project to worsen the Level of Service at two traffic intersections is significant especially, when it puts one intersection into a traffic jam condition. Therefore, the EIR must make a finding that the development will have a significant impact on traffic.

The traffic study was done utilizing manual counts of traffic on Thursday October 10, 2002 and Thursday September 20, 2001 at nine intersections. Also the report indicates that 24 hour machine counts were conducted on La Tuna Canyon Road on Thursday, October 17, 2002 and Friday October 25, 2002. The report indicates on Page IV.I-5 that traffic counts should be conducted mid-week (Tuesday, Wednesday, or Thursday) which usually represent typical travel patterns. We question why the consultant did a count on Friday if this is a day that may not be representative of typical traffic patterns. This reference to Friday is probably an error that is discussed above. 149-197

The traffic counts are based on a very small population of readings. All the readings occurred in the fall months. There may be some variance in traffic patterns between spring, winter and fall months. Readings must be taken in other months of the year to eliminate seasonal traffic variances. All traffic counts were also taken only on Thursdays for both manual counts and machine counts. Traffic patterns do vary during each weekday. Taking traffic counts only on Thursdays may create a bias in the counts collected. This could lead to errors if you were to believe that this data collected is truly representative of the actual average counts for the area. We believe that the traffic count may not be accurate. 149-198

The number of readings taken is also not statistically significant because of amount of sample population is so small. The total population of readings that could be taken during a year would be 365 days except in a leap year. If you eliminate Saturdays and Sundays and observed Federal 149-199

and State holidays assuming the holidays fell on a weekday instead of a weekend, you would eliminate 114 days from the possible population of observation days. If you also exclude non-school holiday period weekdays from the middle of June through the first week of September, Christmas-New Years Holiday period, Spring break holiday period, and an additional 5 weekdays that Los Angeles City Schools may not be in session due to administrative conference or workdays, another 77 days would be eliminated from the possible population of observation days. This would leave a possible population of 174 observation days. 149-199

The observation of traffic at nine intersections was done only 1 day each of two years. The observation of traffic on La Tuna Canyon Road was done only 2 days in one year.

The sample size calculating software was provided by Creative Research Systems.

We did some same size calculations to determine the statistical significance of such small population samples. The traffic count at the nine intersections was done only 1 day from a possible 174 observation days. The results calculated at a 95% confidence level indicates that the confidence interval is 98 with 1 measurement taken out of a population of 174. That means that the EIR consultant can be 95% confident that the traffic count represents the actual area traffic count only 3 % to 100% of the time. Since the confidence interval is so large, there is a great chance that with only 1 observation in 1 year that the results do not reflect the actual area traffic for a typical work day.

If the EIR consultant chose 4 days out of the 174 days in a year, at a 95% confidence level, the confidence interval would be about 49. That would mean that if the EIR consultant measured the traffic at the nine intersections only 4 days each year, he would be 95% confident that the traffic count represents the actual area traffic count 51% to 100% of the time. Though this confidence interval still is large, it would at least mean that the traffic counts would likely to represent the true actual area traffic for those nine intersections about half the time or more. 149-200

If we calculate the statistical significance of making two different day traffic counts on La Tuna Canyon road, we get the following results. The results calculated at a 95% confidence level indicate that the confidence interval is 69 with 2 measurements taken out of a population of 174. That would mean that if the EIR consultant measured the traffic on La Tuna Canyon Road only 2 days each year, he would be 95% confident that the traffic count represents the actual area traffic count 31% to 100% of the time. With the confidence interval so large, there is a great chance that these results are not representative of the true traffic count. Since the confidence interval is so large, there is a great chance that with only 2 observations in 1 year that the results do not reflect the actual area traffic for a typical work day.

The traffic data gathered does support our position that data on too few days were gathered. The traffic information gathered at intersections 7 and 8 on October 10, 2002 should be the same or similar to the automated traffic counts taken on October 17 and 25, 2002. These measurements were taken from the same point on different days. At both intersections 7 & 8, for AM peak hour, the volume per hour was 436 eastbound and 732 westbound for a total of 1,168

vehicles passing that point during AM peak hour. At both intersections 7 & 8, for PM peak hour, the volume per hour was 683 eastbound and 439 westbound for a total of 1,122 vehicles passing that point during PM peak hour.

However, the average vehicle travel at the same points taken by the automated systems at peak hours yields different results. The average for the AM peak hour was 1,192 vehicles per hour. This difference is only 24 vehicles more per hour or about a 2% difference. The average for the PM peak hour was 1,473 vehicles per hour. This difference is 351 vehicles more per hour or a 31.3% difference. If there are errors of these magnitudes where the actual traffic count is more than 30% more than the count, the traffic numbers discussed are meaningless. 149-200

It seems apparent with the low number of observation days that more observation days must be done to validate that the traffic numbers used in the EIR are accurate. The numbers that are used in the EIR may have substantially understated the impact on local traffic.

We did an analysis of two of the manual counts of October 10, 2002 and September 20, 2001 and the automated counts taken on October 17, 2002 and October 24, 2002. This is the data for Intersections 7 & 8, Development Area B Access East and West and La Tuna Canyon Blvd. The counts measured existing traffic on those dates on La Tuna Canyon Road Eastbound and Westbound at that location.

We have compiled the data from these counts showing the cars going east and west on those dates at the hours the measurements were taken. We summarized the counts from all four dates and calculated an average count for each hour for each direction of travel.

We found that on any individual date, for any individual hour measurement, for any direction, the variation from the average for the hour and direction varied from -31% to 46%. This is a 77% variance range from the average. This analysis bears out what we presented above indicating that the data collected had too few collection days and is most likely not representative of the true average traffic count at any location. The traffic consultant is telling us that the traffic count at these nine intersections is representative of the true average amount of traffic that normally goes through these points on any school workday. But the actual average counts could be 31% lower than the data presented or 46% higher than what is presented. The actual average count could be even much higher or lower than the data presented in the EIR. 149-201

Thus, the existing Levels of Service (LOS) and Volume to Capacity Ratios (V/C) are probably incorrect. This means that the EIR consultant's finding that this project will not have a significant adverse impact on area traffic most likely is incorrect too. Please refer to our analysis on the next page:

CANYON HILLS ENVIRONMENTAL IMPACT REPORT
TRAFFIC MEASUREMENT VARIANCE

La Tuna Canyon Traffic Manual Count 10/10/2002

Hours	Eastbound Total	% Variance from Average	Westbound Total	% Variance from Average	East West Total	% Variance from Average
7-8	376	-5.65%	642	-12.38%	1,018	-10.01%
8-9	392	3.70%	613	-8.58%	1,005	-4.15%
9-10	198	-0.75%	281	-13.20%	479	-8.46%
3-4	436	-9.78%	394	-19.10%	830	-14.46%
4-5	587	-1.51%	370	-28.47%	957	-14.04%
5-6	754	-1.05%	435	-24.41%	1,189	-11.10%

La Tuna Canyon Traffic Machine Count 10/17/2002

Hours	Eastbound Total	% Variance from Average	Westbound Total	% Variance from Average	East West Total	% Variance from Average
7-8	419	5.14%	733	0.03%	1,152	1.83%
8-9	367	-2.91%	712	6.19%	1,079	2.91%
9-10	202	1.25%	379	17.07%	581	11.04%
3-4	517	6.98%	537	10.27%	1,054	8.63%
4-5	576	-3.36%	587	13.48%	1,163	4.47%
5-6	753	-1.18%	671	16.59%	1,424	6.47%

149-201

La Tuna Canyon Traffic Machine Count 10/24/2002

Hours	Eastbound Total	% Variance from Average	Westbound Total	% Variance from Average	East West Total	% Variance from Average
7-8	399	0.13%	833	13.68%	1,232	8.91%
8-9	399	5.56%	743	10.81%	1,142	8.92%
9-10	195	-2.26%	361	11.51%	556	6.26%
3-4	507	4.91%	653	34.09%	1,160	19.56%
4-5	654	9.73%	754	45.77%	1,408	26.48%

5-6	745	-2.23%	778	35.19%	1,523	13.87%

La Tuna Canyon Traffic Manual Count 9/20/2001

Hours	Eastbound Total	% Variance from Average	Westbound Total	% Variance from Average	East West Total	% Variance from Average
7-8	400	0.38%	723	-1.33%	1,123	-0.73%
8-9	354	-6.35%	614	-8.43%	968	-7.68%
9-10	203	1.75%	274	-15.37%	477	-8.84%
3-4	473	-2.12%	364	-25.26%	837	-13.73%
4-5	567	-4.87%	358	-30.79%	925	-16.91%
5-6	796	4.46%	418	-27.37%	1,214	-9.23%

La Tuna Canyon Traffic Totals & Average of All 2001 & 2002 Counts

Hours	Eastbound Total	**Eastbound Average Count**	Westbound Total	**Westbound Average Count**	East West Total	**East-West Total Average Count**
7-8	1,594	**399**	2,931	**733**	4,525	**1,131**
8-9	1,512	**378**	2,682	**671**	4,194	**1,049**
9-10	798	**200**	1,295	**324**	2,093	**523**
3-4	1,933	**483**	1,948	**487**	3,881	**970**
4-5	2,384	**596**	2,069	**517**	4,453	**1,113**
5-6	3,048	**762**	2,302	**576**	5,350	**1,338**

149-201

We have included an explanation of the terminology used and other factors involving sample size from the Creative Research Systems website in the Noise Section of our EIR response.

The increased potential for traffic congestion or delays at key intersections near the project site have been understated for AM times. Many if not most of the households in this development will have 2 primary wager earners that will go to work each day. Those that do not have a minimum of two wager earners in a household may actually have more than 2. Additionally, some households that have only one working spouse might generate a number of two-way am trips during peak hour period to transport children to school. In the Oakmont V traffic report prepared by the same consultant, they used a ratio of .869 one-way trips per household at peak a.m. times is in the EIR. However for this development, they used a ratio of .564 one-way exiting trips per household at peak a.m. times is in the EIR. Why did this traffic consultant use a

149-202

number that was about 35% lower than it did in a similar traffic study only about 2 years ago? 149-202

This ratio may be closer to 1.500 one-way trips out of the development per household at peak AM times. This would mean that 280 homes will generate 420 one way exiting trips. The consultant must take into account that there is no public transportation in this area and the ratio that they use may include residents use of public transportation. Also, households in this area do drive more than the average Los Angeles household. Sunland-Tujunga households according to the community plan drive alone 17% more than households citywide. The community plan reports that 76.2% of the area residents drive to work alone compared to 65.2% citywide. 149-203

The increased potential for traffic congestion or delays at key intersections near the project site may be understated for PM peak hour traffic too. The EIR has a ratio of .646 one way trips entering the development at the peak PM times. The Oakmont V EIR had a ratio of 1.18 one-way trips per household entering that development at peak PM times. Why did this traffic consultant use a number that was about 45% lower than it did in a similar traffic study only about 2 years ago? 149-204

We agree that the number of PM trips should be higher because people are doing errands, visiting, attending evening or afternoon functions. We believe that the ratio of one-way trips per household entering that development at peak PM times should be closer to 2.00. This means that 280 homes will generate 560 one-way entry trips. 149-205

The applicant must pay for any traffic mitigation required for street improvement. Such as traffic lights, any widening of La Tuna Canyon Road, reconfiguration of the freeway offramps at La Tuna Canyon, or building turn lanes on La Tuna Canyon for entry into the development. 149-206

We do not agree that 280 homes will generate only 2,680 daily trips. This results in only 9.57 daily trips per household. The same consultant about two years ago in the Oakmont V EIR, another proposed hillside development in the Verdugo Mountains used 11.15 daily trips per household. Why is the consultant using a figure that is 14% less than it used in a previous recent EIR? The consultant must take into account that there is no public transportation in this area and the ratio that they use may include residents use of public transportation. Also, households in this area do drive more than the average Los Angeles household. Sunland-Tujunga households according to the community plan drive alone 17% more than households citywide. Even the use of 11.15 daily trips per household may be low. This assumes that 2 drivers per household only make about 5 ½ roundtrips out of their house on a typical weekday. At 11.15 daily trips per household, it would result in 3,122 total trips from the development excluding use of the equestrian park. If the actual number is closer to 14 roundtrips per household as there are no services, businesses or schools that are in the development or in close enough proximity that residents would use alternate means of transportation such as walking or bicycling, the number of trips generated from this development would be 3,920 total trips. 149-207

We also believe that as a mitigation measure that a traffic light must be installed on one of the entrances into the Development Area B. In the morning, if a vehicle traveling east bound on La 149-208

Tuna Canyon Road wanted to make a turn into Development Area B, during peak hour 732 vehicles during that hour would prevent an east bound vehicle from entering the development. This would mean that 12.2 westbound vehicles per minute would cross the path of an east bound vehicle trying to enter Area B. That would be about 1 car heading westbound every 5 seconds. With a 2% compounded traffic growth each year, by 2009 west bound peak hour traffic in the morning would be 841 vehicles. This would mean that 14.0 westbound vehicles per minute would cross the path of an east bound vehicle trying to enter Area B. That would be about 1 car heading westbound every 4 seconds. Clearly, unless mitigation measures are taken, access to Development Area B would be dangerous. La Tuna Canyon road is winding mountain road and only two lanes in some places. 149-208

Also, the traffic growth rate for future traffic of 2%, though it is the recommended rate of growth by the City of Los Angeles is an inaccurate measure. If the traffic figures for this project and the Duke Development are accurate, the rate of growth is substantially greater on the roadways near the project area. The Duke Development traffic study was done in 1991 or 1992. The Canyon Hills project traffic study was done in 2002. In that 10 or 11 year period, the traffic in some places increased at an annual compounded rate between 3.5% and 3.75%. This rate is at least 75% greater than the projected growth rates listed in the EIR. This would mean that future traffic would be much worse. Any new traffic would worsen some roads likely to have a "F" LOS. The EIR must utilize a higher rate of growth than 2% to project traffic. 149-209

Examples of these increases in traffic between the Duke EIR and the Canyon Hills EIR include the following A.M. Peak Hour traffic counts done for the two EIRs. La Tuna Canyon Road in the Westbound direction by the project entrance site increases from 227 vehicles to 333 vehicles, a 46.7% increase in traffic. Tujunga Canyon Road in the Southbound direction at the intersection of Honolulu and La Tuna Canyon Road increases from 930 vehicles to 1,324 vehicles, a 42.4% increase in traffic. Honolulu Avenue in the Westbound direction at the intersection of La Tuna Canyon Road and Tujunga Canyon Road increases from 332 vehicles to 466 vehicles, a 44.7% increase in traffic.

Other examples of area traffic worsening at a greater rate than what is used to project future traffic is comparing some of the LOS and V/C done for the Duke and Canyon Hills Developments. The same 10 or 11 year difference exists between the two studies when the traffic counts were taken to compute the LOS and V/C. During that period at the intersection of La Tuna Canyon, Tujunga Canyon Road and Honolulu Avenue the A.M. Peak hour LOS goes from "C" to "F" and the V/C goes from .73 to 1.040. The P.M Peak hour LOS goes from "D" to "E" and V/C goes from .88 to .938 at the same intersection. At the Development A access point which is the intersection of La Tuna Canyon Road and the Westbound Offramps of the Foothill Freeway also show marked increases in traffic volume and worsening traffic conditions. The A.M. Peak hour LOS goes from "A" to "B" and V/C goes from .43 to .611 at this intersection. The P.M. Peak hour LOS remains "A" in both studies but the V/C goes from .28 to .522 nearly doubling at this intersection. 149-210

These again worsen at a faster rate than is used in the EIR. The future LOS and V/C projects

must use the actual rates for the area not imaginary unrealistic numbers. The EIR is meaningless as a planning tool if projected future impacts are not adequately reflected in the report and appropriately mitigated. 149-210

The information in the EIR indicates that there must be a traffic signal at the Foothill Freeway off ramp at La Tuna Canyon and the Development Area A project entrance. This intersection cannot function safely and the desired level of service without the installation of a traffic signal. The development in this area must not be allowed to proceed without this installing a signal at this intersection as a mitigation measure. 149-211

The Highway Patrol in their letter found in letter dated October 4, 2002 in Appendix B indicated a park and ride lot should be created on or near the project site. We think that this is a good idea given that area residents are 17% more likely to drive alone to work than the rest of the city and that there is no public transportation that serves the project site. The applicant must pay for the creation of this park and ride lot either on or off the Canyon Hills Development. 149-212

The EIR consultant did not take into account terrain factors, whether passing zones were present (on two lane roads), the width of the lanes, whether shoulders are present when computing the road capacities to compute the Volume to Capacity (V/C) and Level of Service (LOS). These must be considered because it appears that the consultant assumed that all area roads were flat, did not have curves, had shoulders, and may have had wider lanes than actual. These factors are critical because the vehicle capacity of these mountain roads is substantially less than what is stated in the EIR. This would mean that the LOS for the area roads is worse. This would also mean that the increases in traffic volume as a result of this development are likely to be significant and unavoidable impacts. If the V/C is substantially lower and the LOS is substantially worse than the EIR states, there will probably be no mitigation for this significant and unavoidable impact. 149-213

The following is a problem from Dr. Souleyrette, Department of Transportation Engineering, Iowa State University with references to Wright and Ashford, pp. 280 - 291, pp. 405 - 409, pp. 444-447. The problem computes the actual capacity of a 2-lane road that if completely ideal conditions were present could handle a volume of 2,800 vehicles per hour per lane. After all the factors are considered, the road has only a volume capacity of only 324 vehicles per hour per lane. We have pasted a copy of the problem computation and the tables cited in the computation. 149-214

The EIR consultant did not consider most of these factors with the project area roads. Again, this must be done in the EIR for the traffic analysis to be meaningful.

Problem:

rural, 2 lane road

given: 60 mph design speed, lane width = 11', 4' shoulders, 20% no-passing zones, 10% trucks, 5% RVs, 2% buses, 60/40 directional split, rolling terrain

find: service flow rate for LOS B ...

$SF_i = 2800 \times (V/C)_i \times f_d \times f_w \times f_{HV}$

$(V/C)_i = 0.23$ (table 8-4)

$f_d = 0.94$ (table 8-5)

$f_w = 0.85$ (table 8-6)

149-214

$f_{HV} = 1/[1 + P_T(E_T-1) + P_{RV}(E_{RV}-1) + P_B(E_B-1)]$

$P_T = .10$

$E_T = 5$ (table 8-7)

$P_{RV} = .05$

$E_{RV} = 3.9$ (table 8-7)

$P_B = .02$

$E_B = 3.4$ (table 8-7)