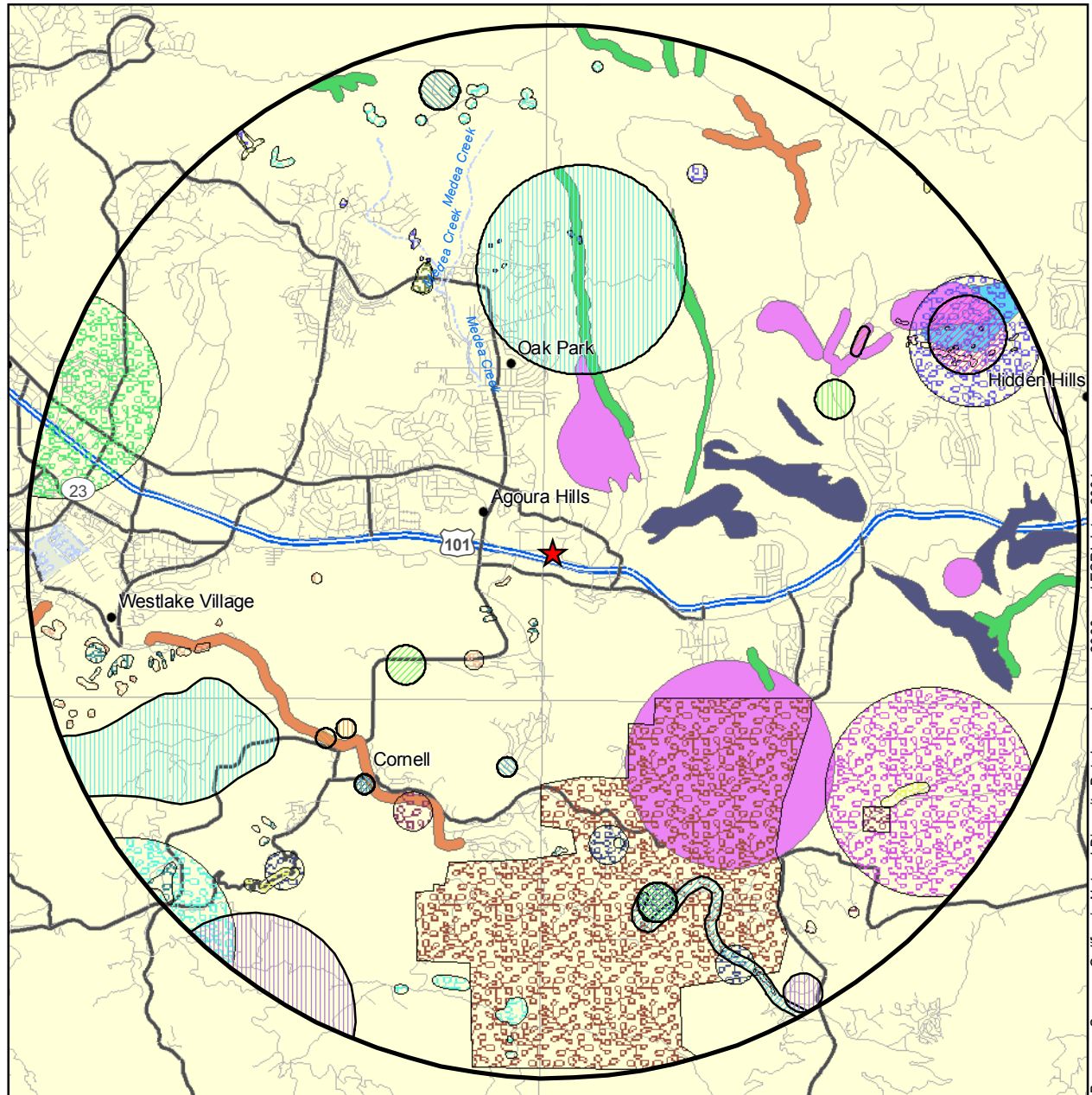
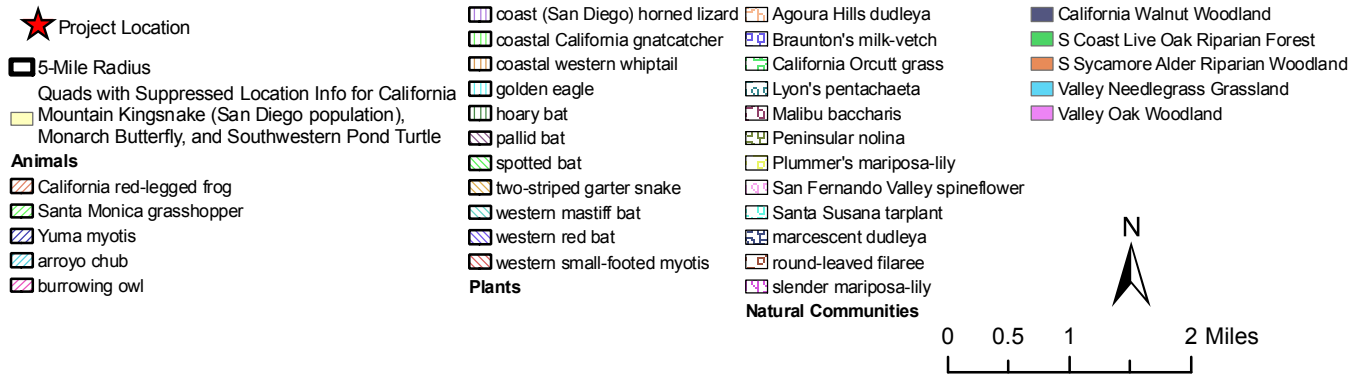


Proposed
 Building Elevations

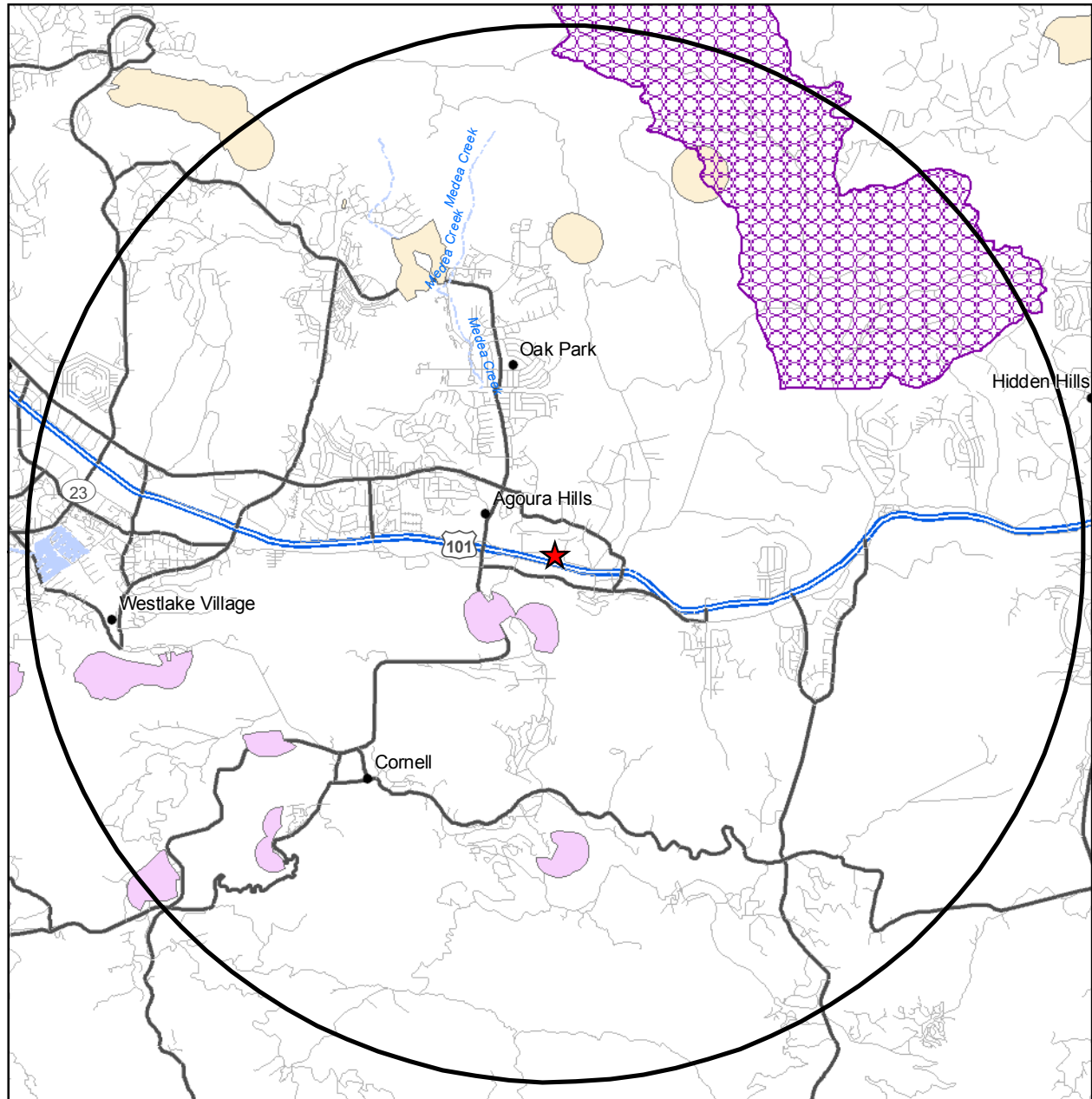


Basemap Source: California Natural Diversity Database, January, 2009, and ESRI data, 2004.



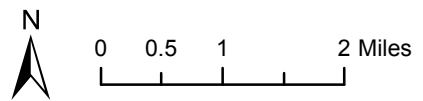
Special-Status Elements Tracked by CNDDDB
 in the Vicinity of the Project Site

Figure 7
 City of Agoura Hills



Basemap Source: U.S. Fish and Wildlife Service, October 2008 and ESRI data, 2004. Critical habitat shown is that most recently available from U.S. FWS. Check with U.S. FWS or Federal Register to confirm. Note - Map to be printed in color, due to subtleties in symbology noticeable only on color version.

- ★ Project Location
- 5-Mile Radius
- Critical Habitat**
- ▨ CA Red-legged Frog PCH
- Braunton's Milk Vetch FCH
- Lyon's Pentachaeta FCH



Critical Habitat

Figure 8
 City of Agoura Hills



Appendix A

Air Quality Modeling Results and Calculations



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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: L:\ESPLA Co\Agoura Hills\08-63260 Agoura Bus Ctr West ISMND\Other\Air Quality\Air Quality without mitigation.urb924

Project Name: Bus Ctr W.

Project Location: Los Angeles County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2010 TOTALS (lbs/day unmitigated)	3.91	35.88	17.91	0.01	120.45	1.71	122.17	25.16	1.57	26.74	3,816.57
2011 TOTALS (lbs/day unmitigated)	24.57	8.79	6.19	0.00	0.01	0.56	0.57	0.00	0.51	0.51	1,099.89

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.25	0.22	1.72	0.00	0.01	0.01	242.23

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	5.78	8.72	76.12	0.09	14.20	2.76	8,418.77

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	6.03	8.94	77.84	0.09	14.21	2.77	8,661.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
--	------------	------------	-----------	------------	------------------	---------------------	-------------	-------------------	----------------------	--------------	------------

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Time Slice 5/20/2010-6/18/2010 Active Days: 22	3.91	35.88	17.91	0.01	120.45	1.71	122.17	25.16	1.57	26.74	3,816.57
Mass Grading 05/20/2010- 06/20/2010	3.91	35.88	17.91	0.01	120.45	1.71	122.17	25.16	1.57	26.74	3,816.57
Mass Grading Dust	0.00	0.00	0.00	0.00	120.40	0.00	120.40	25.14	0.00	25.14	0.00
Mass Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Mass Grading On Road Diesel	0.87	10.83	4.37	0.01	0.05	0.46	0.51	0.02	0.42	0.44	1,444.91
Mass Grading Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.34
Time Slice 6/23/2010-7/30/2010 Active Days: 28	3.04	25.05	13.55	0.00	4.81	1.25	6.06	1.00	1.15	2.16	2,371.66
Fine Grading 06/23/2010- 08/01/2010	3.04	25.05	13.55	0.00	4.81	1.25	6.06	1.00	1.15	2.16	2,371.66
Fine Grading Dust	0.00	0.00	0.00	0.00	4.80	0.00	4.80	1.00	0.00	1.00	0.00
Fine Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.34
Time Slice 8/4/2010-8/13/2010 Active Days: 8	2.09	17.75	9.30	0.00	0.01	0.88	0.89	0.00	0.81	0.81	1,838.98
Trenching 08/04/2010-08/15/2010	2.09	17.75	9.30	0.00	0.01	0.88	0.89	0.00	0.81	0.81	1,838.98
Trenching Off Road Diesel	2.06	17.69	8.22	0.00	0.00	0.88	0.88	0.00	0.81	0.81	1,714.64
Trenching Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.34
Time Slice 8/18/2010-8/27/2010 Active Days: 8	2.12	12.35	9.02	0.00	0.01	1.05	1.06	0.00	0.96	0.97	1,242.47
Asphalt 08/18/2010-08/29/2010	2.12	12.35	9.02	0.00	0.01	1.05	1.06	0.00	0.96	0.97	1,242.47
Paving Off-Gas	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.95	11.89	6.98	0.00	0.00	1.03	1.03	0.00	0.94	0.94	979.23
Paving On Road Diesel	0.03	0.34	0.14	0.00	0.00	0.01	0.02	0.00	0.01	0.01	45.64
Paving Worker Trips	0.06	0.11	1.90	0.00	0.01	0.01	0.02	0.00	0.00	0.01	217.60

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Time Slice 9/1/2010-12/31/2010 Active Days: 88	1.27	9.48	6.44	0.00	0.01	0.59	0.60	0.00	0.54	0.55	1,099.92
Building 09/01/2010-04/24/2011	1.27	9.48	6.44	0.00	0.01	0.59	0.60	0.00	0.54	0.55	1,099.92
Building Off Road Diesel	1.21	9.16	4.81	0.00	0.00	0.58	0.58	0.00	0.53	0.53	893.39
Building Vendor Trips	0.02	0.23	0.19	0.00	0.00	0.01	0.01	0.00	0.01	0.01	42.28
Building Worker Trips	0.05	0.09	1.44	0.00	0.01	0.00	0.01	0.00	0.00	0.01	164.25
Time Slice 1/3/2011-4/22/2011 Active Days: 80	1.17	8.79	6.19	0.00	0.01	0.56	0.57	0.00	0.51	0.51	1,099.89
Building 09/01/2010-04/24/2011	1.17	8.79	6.19	0.00	0.01	0.56	0.57	0.00	0.51	0.51	1,099.89
Building Off Road Diesel	1.11	8.51	4.68	0.00	0.00	0.54	0.54	0.00	0.50	0.50	893.39
Building Vendor Trips	0.02	0.20	0.18	0.00	0.00	0.01	0.01	0.00	0.01	0.01	42.28
Building Worker Trips	0.04	0.08	1.34	0.00	0.01	0.00	0.01	0.00	0.00	0.01	164.22
Time Slice 4/27/2011-5/20/2011 Active Days: 18	24.57	0.02	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.64
Coating 04/27/2011-05/22/2011	24.57	0.02	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.64
Architectural Coating	24.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35.64

Phase Assumptions

Phase: Fine Grading 6/23/2010 - 8/1/2010 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 0.95

Maximum Daily Acreage Disturbed: 0.24

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

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- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 5/20/2010 - 6/20/2010 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 1.93

Maximum Daily Acreage Disturbed: 0.24

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1000 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 340.91

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 8/4/2010 - 8/15/2010 - Default Trenching Description

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 8/18/2010 - 8/29/2010 - Default Paving Description

Acres to be Paved: 0.24

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 9/1/2010 - 4/24/2011 - Default Building Construction Description

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Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
 - 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
 - 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- Phase: Architectural Coating 4/27/2011 - 5/22/2011 - Default: Architectural Coating Description
- Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
- Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
- Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
- Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
- Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.01	0.20	0.17	0.00	0.00	0.00	239.42
Hearth - No Summer Emissions							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings	0.12						
TOTALS (lbs/day, unmitigated)	0.25	0.22	1.72	0.00	0.01	0.01	242.23

Area Source Changes to Defaults

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Strip mall	5.78	8.72	76.12	0.09	14.20	2.76	8,418.77
TOTALS (lbs/day, unmitigated)	5.78	8.72	76.12	0.09	14.20	2.76	8,418.77

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Strip mall	44.38	1000 sq ft	20.64	916.00	8,219.30	

<u>Vehicle Fleet Mix</u>		Catalyst	Diesel
Vehicle Type	Percent Type	Non-Catalyst	
Light Auto	53.5	0.7	0.2
Light Truck < 3750 lbs	6.8	2.9	2.9
Light Truck 3751-5750 lbs	22.9	0.4	0.0
Med Truck 5751-8500 lbs	10.0	1.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	13.3
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	40.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.3	65.2	34.8	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential				Commercial		
	Home-Work	Home-Shop	Home-Other	Commmute	Non-Work	Customer	
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9	
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6	
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0	
% of Trips - Residential	32.9	18.0	49.1				
% of Trips - Commercial (by land use)							
Strip mall				2.0	1.0	97.0	

Greenhouse Gas Emission Worksheet

Operational Emissions

Agoura Business Center West

Electricity Generation *	(kWh)		Project units	Project Usage
Commercial Consumption	16,750	per KSF	20.64	345,720
Residential Consumption	7,000	per unit	0	0
			Total	345,720

* Generation Factor Source: CAPCOA, January 2008. CEQA and Climate Change.

Total Project Annual kWh: 345,720 kWh/year
 Project Annual MWh: 346 MWh/year

Emission Factors:
 CO2 * 804.54 lbs/MWh/year
 CH4 ** 0.0067 lbs/MWh/year
 N2O ** 0.0037 lbs/MWh/year

Total Annual Operational Emissions (metric tons) =
 (Electricity Use (kWh) x EF) / 2,204.62 lbs/metric ton

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4 21 GWP
 N2O 310 GWP

1 ton (short, US) = 0.90718474 metric ton.

Annual Operational Emissions:

	Total Emissions	Total CO2e Units
CO2 emissions, electricity:	139.0728 tons	126.2 metric tons CO2e
CO2 emissions***:	904.0700 tons	39.6 metric tons CO2e
CH4 emissions:	0.0011 metric tons	0.0 metric tons CO2e
N2O emissions:	0.0006 metric tons	0.2 metric tons CO2e
Project Total		166 metric tons CO2e

References

* Table C.1: EPA eGRID CO2 Electricity Emission Factors by Subregion (Year 2000)

** Table C.2: Methane and Nitrous Oxide Electricity Emission Factors by State and Region (Average years 2001-1003)

*** URBEMIS Annual Emissions output for Area Source emissions; includes natural gas combustion for heating.

Sources: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 2.2, March 2007.
 Third Assessment Report, 2001, U.S. Environmental Protection Agency, U.S. Greenhouse Gas Emissions and Sinks, 1990-2000 (April 2002).

Greenhouse Gas Emission Worksheet

Mobile Emissions

8497 Sunset

From URBEMIS 2007 Vehicle Fleet Mix Output:

Daily Vehicle Miles Traveled (VMT): 8,219 (Net: Proposed - Existing)

Annual VMT: 2,999,935

Vehicle Type	Percent Type	CH4		N2O	
		CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)
Light Auto	53.6%	0.4	0.2144	0.4	0.2144
Light Truck < 3750 lbs	6.8%	0.5	0.034	0.6	0.0408
Light Truck 3751-5750 lbs	22.8%	0.5	0.114	0.6	0.1368
Med Truck 5751-8500 lbs	10.0%	0.5	0.05	0.6	0.06
Lite-Heavy Truck 8501-10,000 lbs	1.5%	0.12	0.0018	0.2	0.003
Lite-Heavy Truck 10,001-14,000 lbs	0.5%	0.12	0.0006	0.2	0.001
Med-Heavy Truck 14,001-33,000 lbs	0.9%	0.12	0.00108	0.2	0.0018
Heavy-Heavy Truck 33,001-60,000 lbs	0.5%	0.12	0.0006	0.2	0.001
Other Bus	0.1%	0.5	0.0005	0.6	0.0006
Urban Bus	0.1%	0.5	0.0005	0.6	0.0006
Motorcycle	2.3%	0.09	0.00207	0.01	0.00023
School Bus	0.1%	0.5	0.0005	0.6	0.0006
Motor Home	0.8%	0.12	0.00096	0.2	0.0016
Total			0.42101		0.46243

* from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile).

Assume Model year 2000-present, gasoline fueled.

Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 2.2, March 2007.

<p>Total Emissions (metric tons) = Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g</p>

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4 23 GWP

N2O 296 GWP

1 ton (short, US) = 0.90718474 metric ton.

Annual Mobile Emissions:

	Total Emissions	Total CO2e units
CO2 Emissions* :	4169.6 tons CO2	235 metric tons CO2e
CH4 Emissions:	1.3 metric tons CH4	27 metric tons CO2e
N2O Emissions:	1.4 metric tons N2O	430 metric tons CO2e

Project Total:	692 metric tons CO2e
-----------------------	-----------------------------

* From URBEMIS 2007 results for mobile sources

Appendix B
Traffic Study



CITY OF AGOURA HILLS

**DERRY AVENUE/CANWOOD STREET
RETAIL PROJECT**

TRAFFIC IMPACT ANALYSIS (REVISED)

Prepared by:

**Frank Lee, EIT,
Carl Ballard, and
William Kunzman, P.E.**

William Kunzman



November 12, 2008

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Utilization/Delay**

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City of Agoura Hills

Derry Avenue/Canwood Street Retail Project

Traffic Impact Analysis (Revised)

This report contains the revised traffic impact analysis for the Derry Avenue/Canwood Street Retail Project. The project site is located in the northwest corner of the Derry Avenue/Canwood Street intersection in the City of Agoura Hills. The proposed development consists of 20,661 square feet of specialty retail.

The traffic report contains documentation of existing traffic conditions, traffic generated by the project, distribution of the project traffic to roads outside the project, an analysis of Opening Year (2009) traffic conditions without and with the project, and an analysis of cumulative traffic conditions without and with the project.

Each of these topics is contained in a separate section of the report. The first section is "Findings", and subsequent sections expand upon the findings. In this way, information on any particular aspect of the study can be easily located by the reader.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided within Appendix A.

I. Findings

This section summarizes the existing traffic conditions, project traffic impacts, and the proposed mitigation measures.

A. Existing Traffic Conditions

1. The project site is currently vacant and not generating significant traffic.
2. The study area includes the following intersections:

Kanan Road (NS) at:

SR-101 Freeway NB Ramps/Canwood Street (EW)

SR-101 Freeway SB Ramps/Roadside Drive (EW)

Clareton Drive (NS) at:

Canwood Street (EW)

Project Driveway (NS) at:

Canwood Street (EW)

Derry Avenue (NS) at:

Project Driveway (EW)

Canwood Street (EW)

Colodny Drive (NS) at:

Canwood Street (EW)

Chesebro Road/Canwood Street (NS) at:

Driver Avenue/Palo Comado Canyon Road (EW)

SR-101 Freeway NB Ramps (EW)

3. The study area intersections currently operate at Level of Service D or better during the peak hours for existing traffic conditions, except for the following intersection that operates at Level of Service F during the evening peak hour (see Table 1).

Chesebro Road (NS) at:

SR-101 Freeway NB Ramps (EW)

B. Traffic Impacts

1. The proposed development consists of 20,661 square feet of specialty retail. The project site will have access to Derry Avenue and Canwood Street.

2. The proposed development is projected to generate approximately 916 daily vehicle trips, 28 of which will occur during the morning peak hour and 56 of which will occur during the evening peak hour.
3. The study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2009) without project traffic conditions, except for the following intersection that operates at Level of Service F during the evening peak hour (see Table 3):

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

4. The study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2009) with project traffic conditions, except for the following intersection that operates at Level of Service F during the evening peak hour (see Table 4):

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

5. The project traffic does not significantly impact the study area intersections for Opening Year (2009) traffic conditions. Therefore, no traffic mitigation measures are necessary (see Table 5).
6. The study area intersections are projected to operate at Level of Service D or better during the peak hours for Cumulative without project traffic conditions, except for the following intersections that operate at Level of Service F during the evening peak hour (see Table 6):

Kanan Road (NS) at:
SR-101 Freeway SB Ramps/Roadside Drive (EW)

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

7. The study area intersections are projected to operate at Level of Service D or better during the peak hours for Cumulative with project traffic conditions, , except for the following intersections that operate at Level of Service F during the evening peak hour (see Table 7):

Kanan Road (NS) at:
SR-101 Freeway SB Ramps/Roadside Drive (EW)

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

8. The project traffic does not significantly impact the study area intersections for Cumulative traffic conditions. Therefore, no traffic mitigation measures are necessary (see Table 8).

C. Recommendations

The following measures are recommended traffic conditions for the project:

1. Site-specific circulation and access recommendations are depicted on Figure 24.
2. Sufficient on-site parking shall be provided to meet City of Agoura Hills parking code requirements.
3. Sight distance at the project access should be reviewed with respect to California Department of Transportation/City of Agoura Hills standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.
4. On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.
5. As is the case for any roadway design, the City of Agoura Hills should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

II. Congestion Management Program Methodology

This section discusses the County Congestion Management Program. The purpose, prescribed methodology, and definition of a significant traffic impact are discussed.

A. County Congestion Management Program

The Congestion Management Program is a result of Proposition 111 which was a statewide initiative approved by the voters in June 1990. The proposition allowed for a nine cent per gallon state gasoline tax increase over a five-year period.

Proposition 111 explicitly stated that the new gas tax revenues were to be used to fix existing traffic problems and was not to be used to promote future development. For a city to get its share of the Proposition 111 gas tax, it has to follow certain procedures specified by the State Legislature. The legislation requires that a Traffic Impact Analysis be prepared for new development. The traffic impact analysis is prepared to monitor and fix traffic problems caused by new development.

The Legislature requires that adjacent jurisdictions use a standard methodology for conducting a traffic impact analysis. To assure that adjacent jurisdictions use a standard methodology in preparing traffic impact analyses, one common procedure is that all cities within a county, and the county agency itself, adopt and use one standard methodology for conducting traffic impact analyses.

Although each county has developed standards for preparing traffic impact analyses, traffic impact analysis requirements do vary in detail from one county to another, but not in overall intent or concept. The general approach selected by each county for conducting traffic impact analyses has common elements.

The general approach for conducting a traffic impact analysis is that existing weekday peak hour traffic is counted and the percent of roadway capacity currently used is determined. Then growth in traffic is accounted for and added to existing traffic and the percent of roadway capacity used is again determined. Then the project traffic is added and the percent of roadway capacity used is again determined. If the new project adds traffic to an overcrowded facility, then the new project has to mitigate the traffic impact so that the facility operates at a level that is no worse than before the project traffic was added.

If the project size is below a certain minimum threshold level, then a project does not have to have a traffic impact analysis prepared, once it is shown or agreed that the project is below the minimum threshold. If a project is bigger than the minimum threshold size, then a traffic impact analysis is required.

B. Prescribed Methodology for a Traffic Impact Analysis

The traffic impact analysis must include all monitored intersections to which the project adds traffic above a certain minimum amount. In Los Angeles County, the monitored intersections are contained in Appendix A of the Congestion Management Program for the County of Los Angeles.

If a project adds more traffic than the minimum threshold amount to an intersection, then that intersection has to be analyzed for deficiencies.

If the intersection has to be analyzed for deficiencies, then mitigation is required if the existing traffic plus anticipated traffic growth plus project traffic does cause the Intersection Capacity Utilization/Delay to go above a certain point.

In the City of Agoura Hills, a significant impact would occur when a proposed project increases 2% of capacity (V/C increase > 0.02) at a facility that would operate at Level of Service D or worse with project added traffic volumes. For unsignalized intersections, the threshold is a 2% increase in entering volumes.

An intersection mitigation measure shall either fix the deficiency, or reduce the Intersection Capacity Utilization/Delay so that it is below the level that occurs without the project.

In the City of Agoura Hills, the signalized intersection analysis technique used to calculate Intersection Capacity Utilization is as follows. Lane capacity is 1,600 vehicles per lane per hour for all through and turn lanes and 2,880 total for dual turn lanes. A total yellow clearance time of 0.10 is added.

The technique used to assess the operation of a signalized intersection is known as Intersection Capacity Utilization, as described in Appendix C. To calculate an Intersection Capacity Utilization value, the volume of traffic using the intersection is compared with the capacity of the intersection. The Intersection Capacity Utilization represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The technique used to assess the capacity needs of an unsignalized intersection is known as the Intersection Delay Method (see Appendix C). To calculate delay, the volume of traffic using the intersection is compared with the capacity of the intersection.

Project traffic is generated using rates and procedures contained in the Institute of Transportation Engineers, Trip Generation manual and San Diego Association of Governments, Traffic Generators, April 2002. The project traffic distribution is provided by the reviewing agency or is agreed to in advance of the traffic impact analysis being prepared. The traffic impact analysis has to be prepared by a licensed Traffic Engineer.

This traffic analysis has been prepared in accordance with the traffic impact analysis requirements except as noted. The traffic impact analysis not only examined the Congestion Management Program system of roads and intersections, but also other roads and intersections.

The project-generated traffic was added to intersections, and a full intersection analysis was conducted, even when the project added traffic failed to meet the minimum thresholds that require an intersection analysis.

C. Mitigation Measures

If a project is large enough to require that a traffic impact analysis be prepared, and if the project adds traffic to an intersection above a minimum threshold, and if the intersection is operating at above an acceptable level of operation, then the project must mitigate its traffic impact.

Traffic mitigation can be in many forms including adding lanes. Lanes can sometimes be obtained through restriping or elimination of parking, and sometimes require spot roadway widening.

III. Project Description

This section discusses the project's location and proposed development. Figure 1 shows the project location map. Figure 2 illustrates the site plan.

A. Location

The project site is located in the northwest corner of the Derry Avenue/ Canwood Street intersection in the City of Agoura Hills.

B. Proposed Development

The proposed development consists of 20,661 square feet of specialty retail. The project site will have access to Derry Avenue and Canwood Street.

Figure 1
Project Location Map

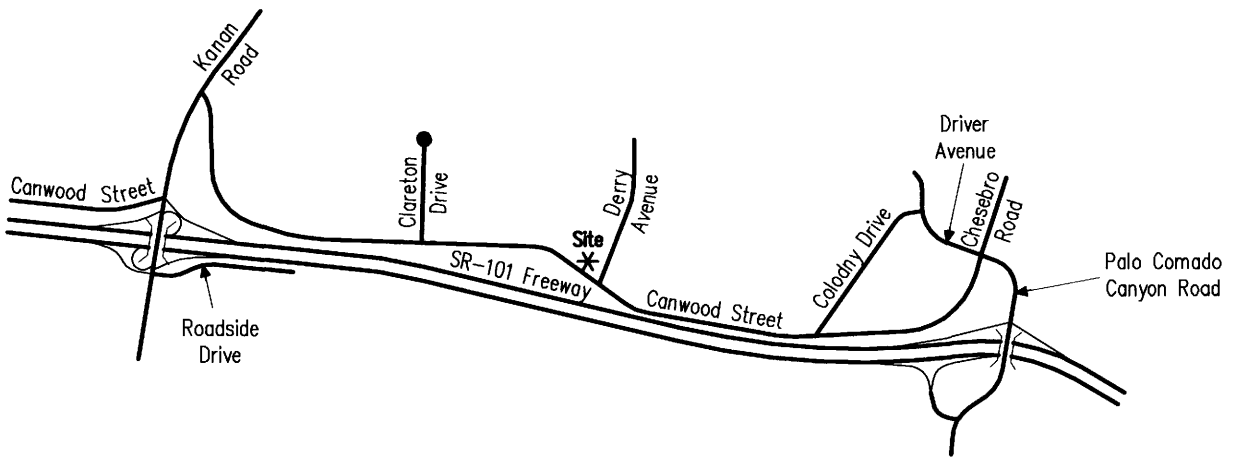
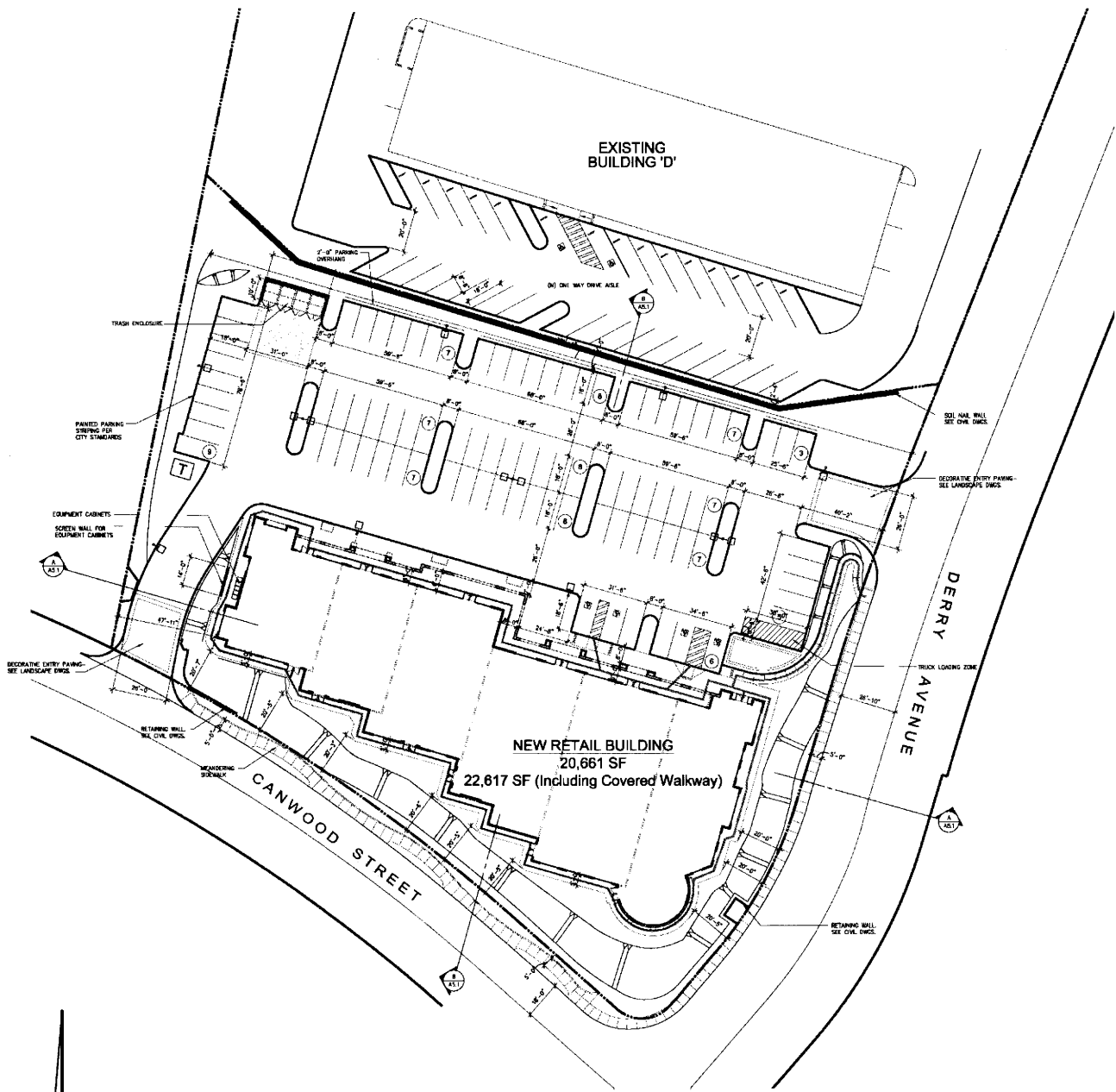


Figure 2 Site Plan



IV. Existing Traffic Conditions

The traffic conditions as they exist today are discussed below and illustrated on Figures 3 to 6.

A. Surrounding Street System

Study area roadways that will be utilized by the development include Driver Avenue, Canwood Street, Roadside Drive, Kanan Road, Clareton Drive, Derry Avenue, Colodny Drive, and Chesebro Road.

Driver Avenue: This east-west roadway currently is two lanes undivided in the study area. Driver Avenue currently carries approximately 6,100 to 10,300 vehicles per day in the study area.

Canwood Street: This east-west roadway currently is two lanes undivided in the study area. It is classified as a Local Arterial on the City of Agoura Hills General Plan Circulation Element. Canwood Street currently carries approximately 4,300 to 7,000 vehicles per day in the study area.

Roadside Drive: This east-west roadway currently is two lanes undivided in the study area. Roadside Drive currently carries approximately 5,900 vehicles per day in the study area.

Kanan Road: This north-south roadway currently is four lanes divided to 5 lanes divided in the study area. Kanan Road currently carries approximately 27,600 to 36,400 vehicles per day in the study area.

Clareton Drive: This north-south roadway currently is two lanes undivided in the study area. It is not classified on the City of Agoura Hills General Plan Circulation Element on the City of Agoura Hills General Plan Circulation Element. Clareton Drive currently carries approximately 5,800 vehicles per day in the study area.

Derry Avenue: This north-south roadway currently is two lanes undivided in the study area. It is not classified on the City of Agoura Hills General Plan Circulation Element. Derry Avenue currently carries approximately 4,200 vehicles per day in the study area.

Colodny Drive: This north-south roadway currently is two lanes undivided in the study area. It is not classified on the City of Agoura Hills General Plan Circulation Element. Colodny Drive currently carries approximately 900 vehicles per day in the study area.

Chesebro Road: This north-south roadway currently is two lanes undivided in the study area. Chesebro Road currently carries approximately 1,100 to 4,300 vehicles per day in the study area.

B. Existing Travel Lanes and Intersection Controls

Figure 3 identifies the existing roadway conditions for study area roadways. The number of through lanes for existing roadways and the existing intersection controls are identified.

C. Existing Average Daily Traffic Volumes

Figure 4 depicts the existing average daily traffic volumes. The existing average daily traffic volumes have been obtained from the 2007 Traffic Volumes on California State Highways by the California Department of Transportation and factored from peak hour counts obtained by Kunzman Associates in May/August 2007 (see Appendix B) using the following formula for each intersection leg:

$$\text{PM Peak Hour (Approach Volume + Exit Volume)} \times 10 = \text{Leg Volume.}$$

D. Existing Levels of Service

The technique used to assess the operation of a signalized intersection is known as Intersection Capacity Utilization, as described in Appendix C. To calculate an Intersection Capacity Utilization value, the volume of traffic using the intersection is compared with the capacity of the intersection. The Intersection Capacity Utilization represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The technique used to assess the capacity needs of an unsignalized intersection is known as the Intersection Delay Method (see Appendix C). To calculate delay, the volume of traffic using the intersection is compared with the capacity of the intersection.

The Intersection Capacity Utilization/Delay for the existing traffic conditions have been calculated and are shown in Table 1. Existing Intersection Capacity Utilization/Delay are based upon manual morning and evening peak hour intersection turning movement counts made for Kunzman Associates in May/August 2007 (see Figures 5 and 6). Traffic count worksheets are provided in Appendix B.

There are two peak hours in a weekday. The morning peak hour is between 7:00 AM and 9:00 AM, and the evening peak hour is between 4:00 PM and 6:00 PM. The actual peak hour within the two-hour interval is the four consecutive 15-minute periods with the highest total volume when all

movements are added together. Thus, the evening peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest combined volume.

The study area intersections currently operate at Level of Service D or better during the peak hours for existing traffic conditions, except for the following intersection that operates at Level of Service F during the evening peak hour (see Table 1):

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

Existing Intersection Capacity Utilization/Delay worksheets are provided in Appendix C.

Table 1
Existing Levels of Service

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Peak Hour V/C/Delay ²	
		Northbound			Southbound			Eastbound			Westbound			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Kanan Road (NS) at:															
SR-101 Freeway NB Ramps/Canwood Street (EW)	TS	1	2	1>	0	3	1	1	0	1	1.5	0.5	2	0.700-C	0.823-D
SR-101 Freeway SB Ramps/Roadside Drive (EW)	TS	0	2	1	1	2	1>	1.3	0.4	1.3	1	0	1	0.659-B	0.869-D
Clareton Drive (NS) at:															
Canwood Street (EW)	CSS	0	0	0	0	1	0	0	1	0	0	1	0	13.0-B	18.0-C
Derry Avenue (NS) at:															
Canwood Street (EW)	CSS	0	0	0	1	0	1	1	1	0	0	1	0	11.2-B	11.8-B
Clodny Drive (NS) at:															
Canwood Street (EW)	CSS	0	0	0	0	1	0	1	1	0	0	1	0	11.0-B	10.3-B
Chesebro Road/Canwood Street (NS) at:															
Driver Avenue/Palo Comado Canyon Road (EW)	AWS	1	1	0	0	1	0	0	1	1	1	1	0	10.5-B	14.8-B
SR-101 Freeway NB Ramps (EW)	CSS	0	1	0	0	1	1	0	0	0	1	0	1	16.4-C	99.9-F ⁴

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.

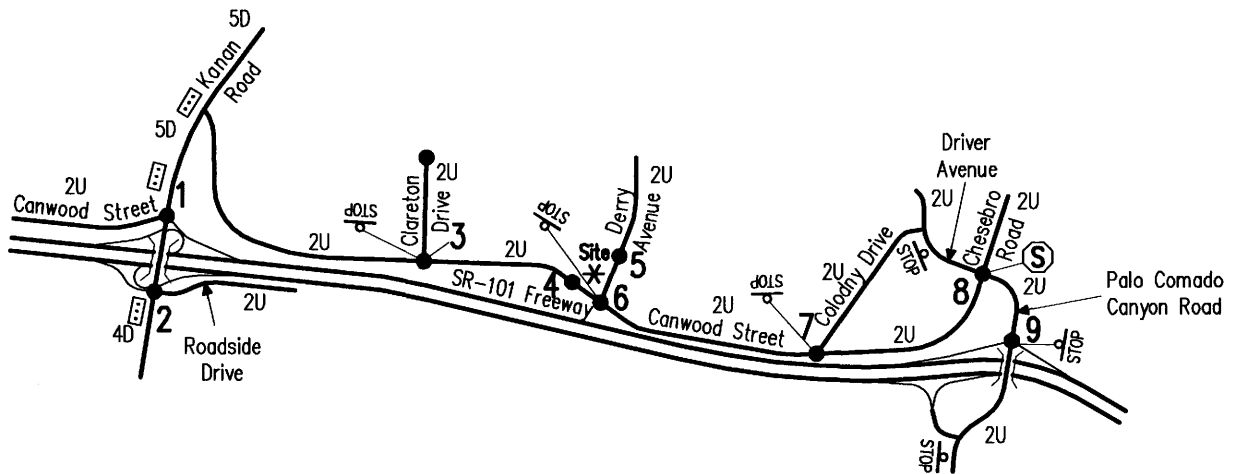
L = Left; T = Through; R = Right; > = Right Turn Overlap

² V/C/Delay has been calculated using the following analysis software: Traffix, Version 7.0 0215 (2008). Per the 2000 Highway Capacity Manual, for intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

⁴ 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Figure 3 Existing Through Travel Lanes and Intersection Controls



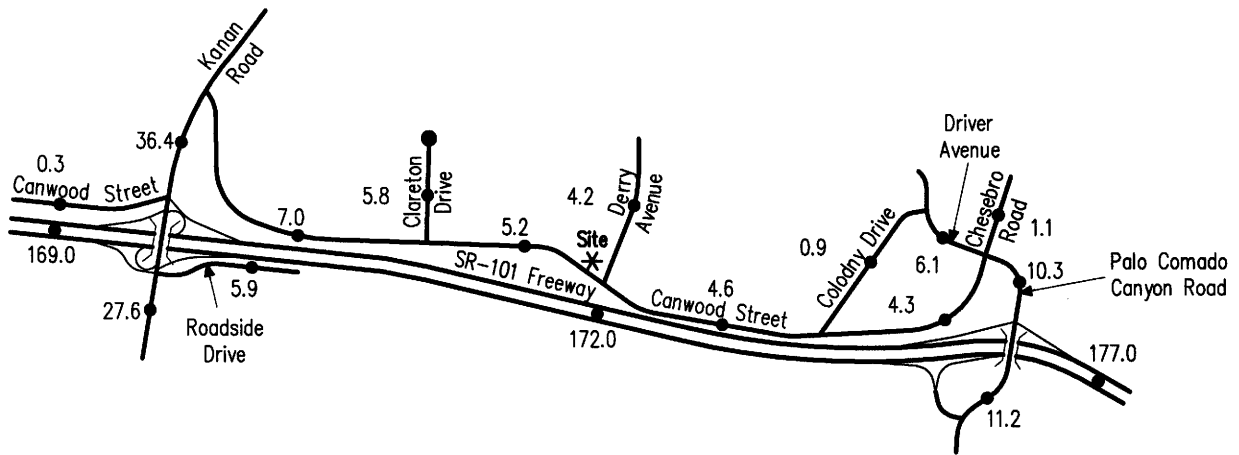
Legend

- = Traffic Signal
- = All Way Stop
- = Stop Sign
- 4 = Through Travel Lanes
- D = Divided
- U = Undivided
- > = Right Turn Overlap



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3	4	5	6	7	8	9																																									

Figure 4
Existing Average Daily Traffic Volumes

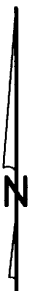
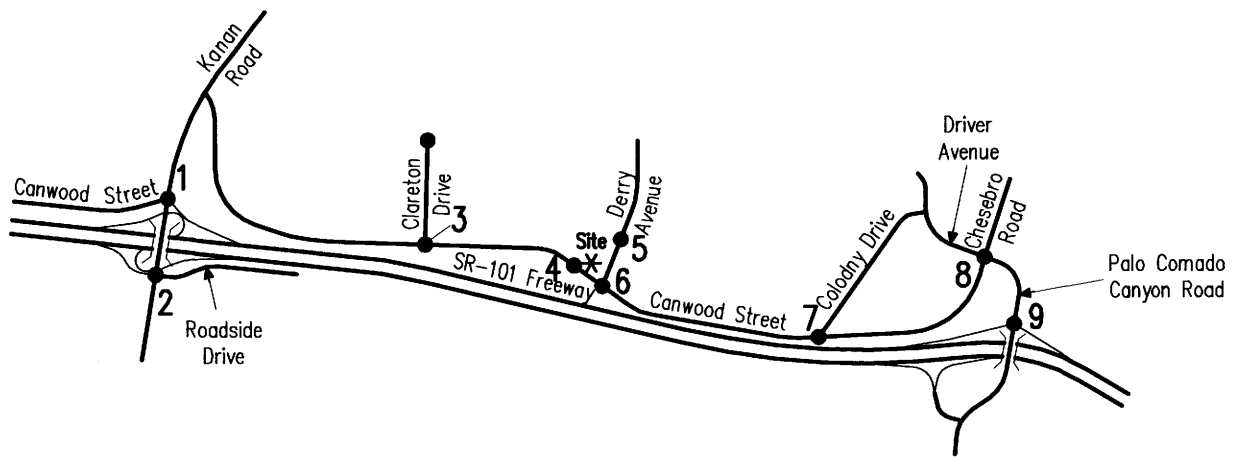


Legend

11.2 = Vehicles Per Day (1000's)



Figure 5 Existing Morning Peak Hour Intersection Turning Movement Volumes



1	2	3	4	5	6	7	8	9
2191	2145	94	0	57	57	50	51	429
← 486 ← 1705 0 0 0	← 950 ← 1071 124 0 0	← 39 ← 0 ← 55 0	← 0 ← 0 ← 0 ← 0	← 0 ← 57 0 0 0	← 29 ← 0 ← 28 0 0	← 17 ← 0 ← 33 0	← 7 ← 3 ← 41 0	← 101 ← 328 ← 0 ← 0
0 0 0 0	731 345 133 253	128 271 0	0 0 0 0	0 0 0 0	94 231 0 0	45 198 0	9 255 3	0 0 0 0
↑ 466 ↑ 540 38 732 163	↑ 94 ↑ 21 493 30	↑ 83 ↑ 65 0 0	↑ 0 ↑ 0 ↑ 0 ↑ 0	↑ 0 ↑ 0 ↑ 0 ↑ 0	↑ 86 ↑ 109 0 0	↑ 10 ↑ 148 0 0	↑ 38 ↑ 135 ↑ 193	↑ 234 ↑ 0 ↑ 231 0
△ 1006	△ 523	△ 148	△ 0	△ 0	△ 195	△ 158	△ 366	△ 197
933	0	0	0	180	0	0	118	0

V. Project Traffic

The proposed development consists of 20,661 square feet of specialty retail. The project site will have access to Derry Avenue and Canwood Street.

A. Trip Generation

The traffic generated by the project is determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our life styles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic, morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land use. By multiplying the traffic generation rates by the land use quantity, the traffic volumes are determined. Table 2 exhibits the traffic generation rates and peak hour volumes and project daily traffic volumes. The traffic generation rates are from the Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003 and San Diego Association of Governments, Traffic Generators, April 2002.

The proposed development is projected to generate approximately 916 daily vehicle trips, 28 of which will occur during the morning peak hour and 56 of which will occur during the evening peak hour.

B. Trip Distribution

Figures 7 and 8 contain the directional distributions of the project traffic for the proposed land use. To determine the traffic distributions for the proposed project, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, and other additional information on future development and traffic impacts in the area were reviewed.

C. Trip Assignment

Based on the identified traffic generation and distributions, project average daily traffic volumes have been calculated and shown on Figure 9. Morning and evening peak hour intersection turning movement volumes expected from the project are shown on Figures 10 and 11, respectively.

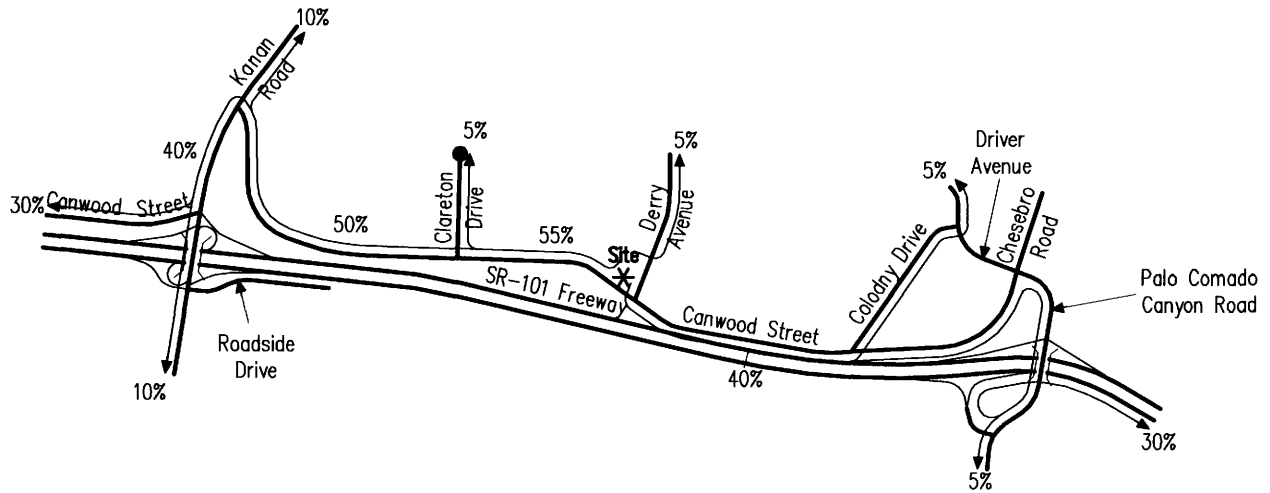
Table 2
Project Traffic Generation¹

Land Use	Quantity	Units ²	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Trip Generation Rates</u>									
Specialty Retail	20.661	TSF	0.80	0.53	1.33	1.19	1.52	2.71	44.32
<u>Trips Generated</u>									
Specialty Retail	20.661	TSF	17	11	28	25	31	56	916

¹ Source: Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003, Land Use Category 814 and San Diego Association of Governments, Traffic Generators, April 2002.

² TSF = Thousand Square Feet

Figure 7
Project Outbound Traffic Distribution

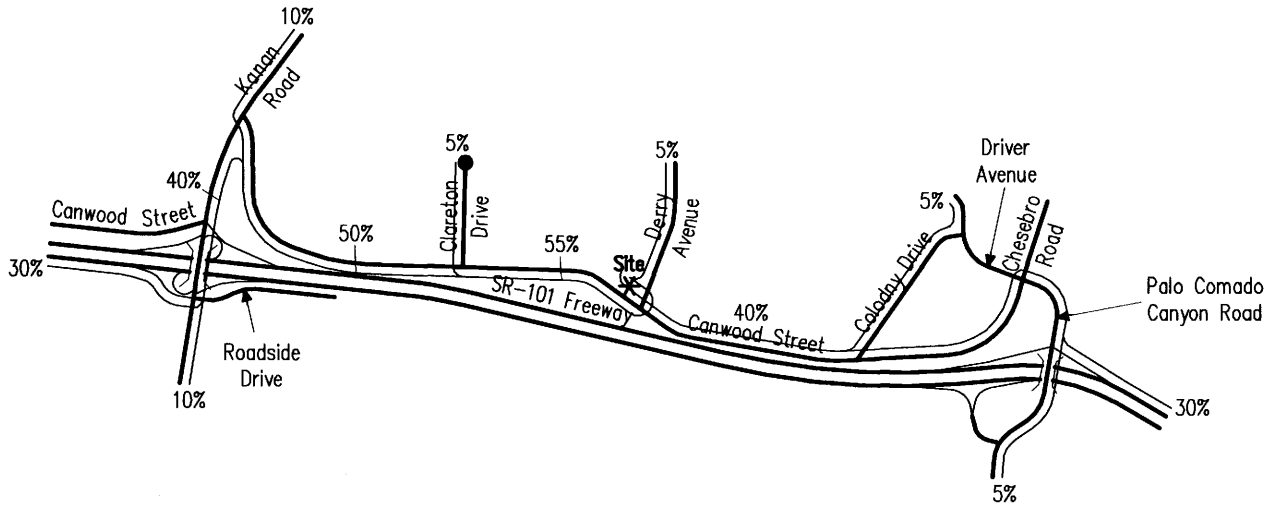


Legend

10% = Percent From Project



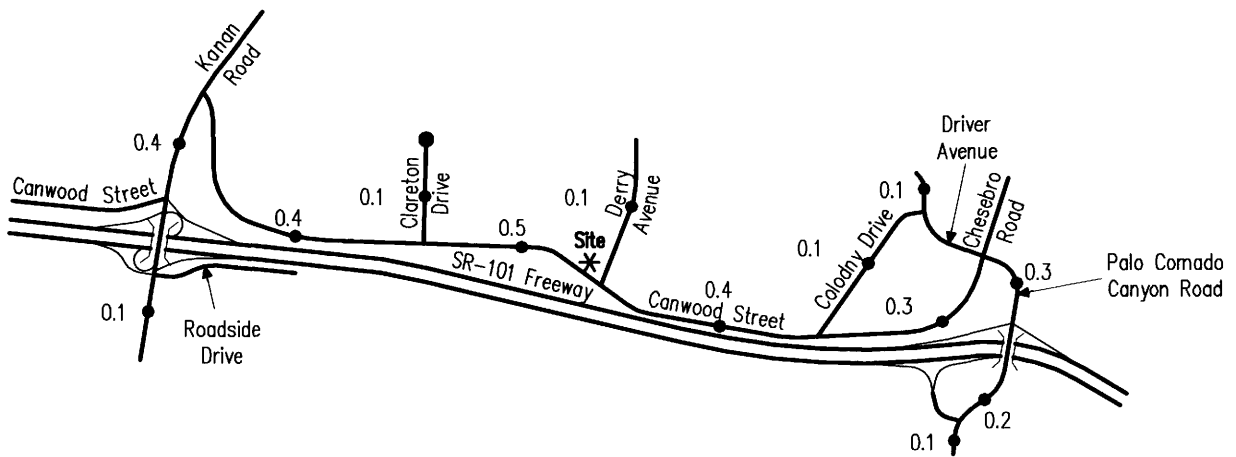
Figure 8 Project Inbound Traffic Distribution



Legend

10% = Percent To Project

Figure 9
Project Average Daily Traffic Volumes



Legend

0.1 = Vehicles Per Day (1000's)



VI. Opening Year (2009) Traffic Conditions

In this section, Opening Year (2009) traffic conditions without and with the project are discussed. Figures 12 to 17 depict the Opening Year (2009) traffic conditions.

A. Method of Projection

To account for areawide growth on roadways, Opening Year (2009) traffic volumes have been calculated based on a two (2) percent annual growth rate of existing traffic volumes over a two (2) year period. The areawide growth rate has been obtained from a previous traffic study provided by City of Agoura Hills staff.

Areawide growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the project.

B. Opening Year (2009) Average Daily Traffic Volumes

Opening Year (2009) without project average daily traffic volumes are as illustrated on Figure 12. The Opening Year (2009) with project average daily traffic volumes are as illustrated on Figure 13.

C. Opening Year (2009) Levels of Service

The technique used to assess the operation of a signalized intersection is known as Intersection Capacity Utilization, as described in Appendix C. To calculate an Intersection Capacity Utilization value, the volume of traffic using the intersection is compared with the capacity of the intersection. The Intersection Capacity Utilization represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The technique used to assess the capacity needs of an unsignalized intersection is known as the Intersection Delay Method (see Appendix C). To calculate delay, the volume of traffic using the intersection is compared with the capacity of the intersection.

The Intersection Capacity Utilization/Delay for the Opening Year (2009) without project traffic conditions have been calculated and are shown in Table 4. Opening Year (2009) without project morning and evening peak hour intersection turning movement volumes are shown on Figures 14 and 15, respectively.

The study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2009) without project traffic

conditions, except for the following intersection that operates at Level of Service F during the evening peak hour (see Table 4):

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

Opening Year (2009) without project Intersection Capacity Utilization/Delay worksheets are provided in Appendix C.

The Intersection Capacity Utilization/Delay for the Opening Year (2009) with project traffic conditions have been calculated and are shown in Table 5. Opening Year (2009) with project morning and evening peak hour intersection turning movement volumes are shown on Figures 16 and 17, respectively.

The study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2009) with project traffic conditions, except for the following intersection that operates at Level of Service F during the evening peak hour (see Table 5):

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

Opening Year (2009) with project Intersection Capacity Utilization/Delay worksheets are provided in Appendix C.

D. Significant Transportation Impact

In the City of Agoura Hills, a significant impact would occur when a proposed project increases 2% of capacity (V/C increase > 0.02) at a facility that would operate at Level of Service D or worse with project added traffic volumes. For unsignalized intersections, the threshold is a 2% increase in entering volumes.

Table 5 depicts the Opening Year (2009) project traffic contribution at the study area intersections. The project site does not significantly impact the study area intersections (see Table 6).

Table 3

Opening Year (2009) Without Project Levels of Service

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Peak Hour V/C or Delay ²	
		Northbound			Southbound			Eastbound			Westbound			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Kanan Road (NS) at: SR-101 Freeway NB Ramps/Canwood Street (EW)	TS	1	2	1>	0	3	1	1	0	1	1.5	0.5	2	0.724-C	0.852-D
SR-101 Freeway SB Ramps/Roadside Drive (EW)	TS	0	2	1	1	2	1>	1.3	0.4	1.3	1	0	1	0.682-B	0.899-D
Clareton Drive (NS) at: Canwood Street (EW)	CSS	0	0	0	0	1	0	0	1	0	0	1	0	13.4-B	19.5-C
Derry Avenue (NS) at: Canwood Street (EW)	CSS	0	0	0	1	0	1	1	1	0	0	1	0	11.4-B	12.1-B
Clodny Drive (NS) at: Canwood Street (EW)	CSS	0	0	0	0	1	0	1	1	0	0	1	0	11.2-B	10.4-B
Chesebro Road/Canwood Street (NS) at: Driver Avenue/Palo Comado Canyon Road (EW)	AWS	1	1	0	0	1	0	0	1	1	1	1	0	10.7-B	15.8-C
SR-101 Freeway NB Ramps (EW)	CSS	0	1	0	0	1	1	0	0	0	1	0	1	17.6-C	99.9-F ⁴

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; 1 = Improvement

² V/C/Delay has been calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, for intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

⁴ 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Table 4

Opening Year (2009) With Project Levels of Service

Intersection	Traffic Control ³	Intersection Approach Lanes ¹												Peak Hour V/C or Delay ²	
		Northbound			Southbound			Eastbound			Westbound			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Kanan Road (NS) at:															
SR-101 Freeway NB Ramps/Canwood Street (EW)	TS	1	2	1>	0	3	1	1	0	1	1.5	0.5	2	0.725-C	0.855-D
SR-101 Freeway SB Ramps/Roadside Drive (EW)	TS	0	2	1	1	2	1>	1.3	0.4	1.3	1	0	1	0.684-B	0.904-E
Clareton Drive (NS) at:															
Canwood Street (EW)	CSS	0	0	0	0	1	0	0	1	0	0	1	0	13.7-B	20.7-C
Project Driveway (NS) at:															
Canwood Street (EW)	CSS	0	0	0	0	0	1	0	1	0	0	1	0	9.1-A	9.9-A
Derry Avenue (NS) at:															
Project Driveway (EW)	CSS	0	1	0	0	1	0	0	1	0	0	0	0	8.9-A	10.0-A
Canwood Street (EW)	CSS	0	0	0	1	0	1	1	1	0	0	1	0	11.8-B	12.8-B
Clodny Drive (NS) at:															
Canwood Street (EW)	CSS	0	0	0	0	1	0	1	1	0	0	1	0	11.3-B	10.5-B
Chesebro Road/Canwood Street (NS) at:															
Driver Avenue/Palo Comado Canyon Road (EW)	AWS	1	1	0	0	1	0	0	1	1	1	1	0	10.8-B	16.1-C
SR-101 Freeway NB Ramps (EW)	CSS	0	1	0	0	1	1	0	0	0	1	0	1	17.7-C	99.9-F ⁴

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; 1 = Improvement

² V/C/Delay has been calculated using the following analysis software: Traffix, Version 7.8.0115 (2006). Per the 2000 Highway Capacity Manual, for intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

⁴ 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Table 5

Opening Year (2009) Project Traffic Contribution

Intersection	Peak Hour	Opening Year (2008)		Opening Year (2008) With Project									
		Without Project		Project Volume Impact ¹	Without Mitigation				With Mitigation				
		V/C/Delay	LOS		V/C or Delay	LOS	V/C Increase	Significant Impact ²	V/C or Delay	LOS	V/C Increase	Significant Impact	
Kanan Road (NS) at:													
SR-101 Freeway NB Ramps/Canwood Street (EW)	Morning	0.724	C	N/A ³	0.725	C	0.001	No					
	Evening	0.852	D	N/A	0.855	D	0.003	No					
SR-101 Freeway SB Ramps/Roadside Drive (EW)													
	Morning	0.682	B	N/A	0.684	B	0.002	No					
	Evening	0.899	D	N/A	0.904	E	0.005	No					
Clareton Drive (NS) at:													
Canwood Street (EW)	Morning	13.4	B	2.5%	13.7	B	N/A ⁴	No					
	Evening	19.5	C	3.3%	20.7	C	N/A	No					
Derry Avenue (NS) at:													
Canwood Street (EW)	Morning	11.4	B	3.2%	11.8	B	N/A	No					
	Evening	12.1	B	5.0%	12.8	B	N/A	No					
Clodny Drive (NS) at:													
Canwood Street (EW)	Morning	11.2	B	4.7%	11.3	B	N/A	No					
	Evening	10.4	B	1.9%	10.5	B	N/A	No					
Chesebro Road/Canwood Street (NS) at:													
Driver Avenue/Palo Comado Canyon Road (EW)	Morning	10.7	B	1.2%	10.8	B	N/A	No					
	Evening	15.8	C	1.8%	16.1	C	N/A	No					
SR-101 Freeway NB Ramps (EW)	Morning	17.6	C	0.9%	17.7	C	N/A	No					
	Evening	99.9	F	1.3%	99.9	F	N/A	No					

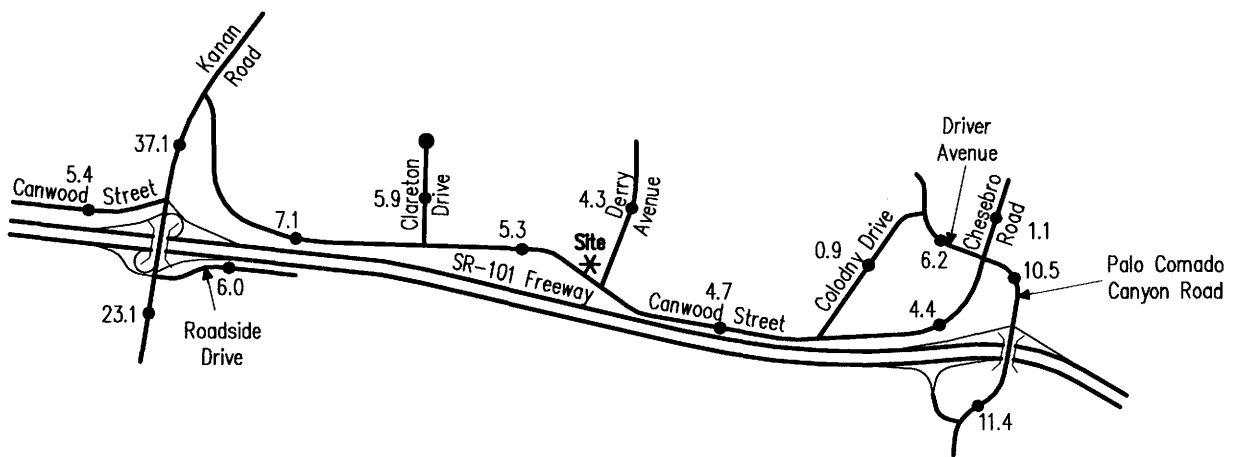
¹ Project volume impact is calculated by project related entering volume divided by total future volume.

² In the City of Agoura Hills, a significant impact for signalized intersections would occur when a proposed project increases 2% of capacity (V/C increase > 0.02) at a facility that would operate at Level of Service D or worse with project added traffic volumes. For unsignalized intersections, the threshold is a 2% increase in entering volumes.

³ Project volume Impact analysis is not applicable for signalized intersections for which the V/C values are available.

⁴ V/C Increase is not applicable for unsignalized intersection delay calculation.

Figure 12
 Opening Year (2009) Without Project Average Daily Traffic Volumes

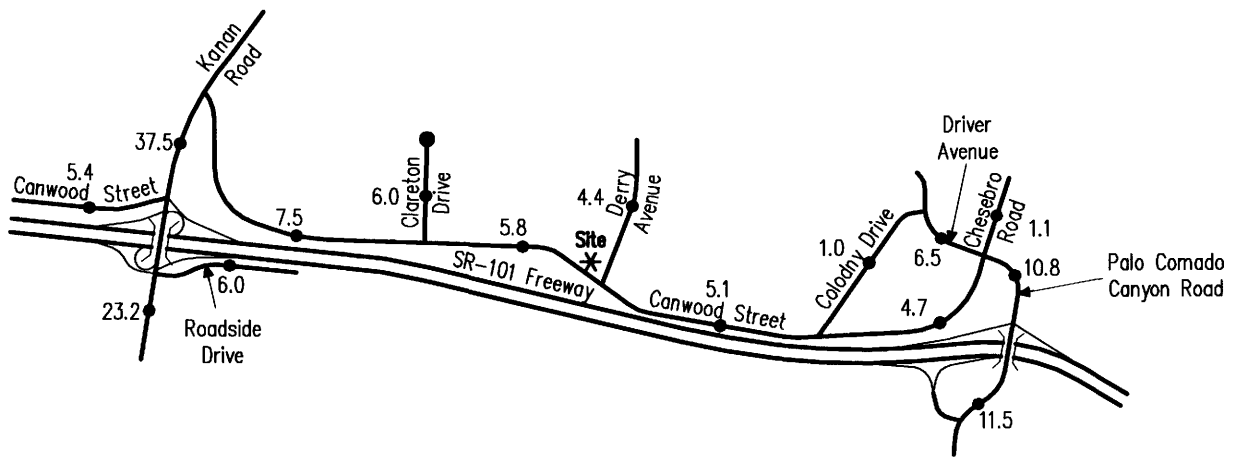


Legend

11.4 = Vehicles Per Day (1000's)



Figure 13
 Opening Year (2009) With Project Average Daily Traffic Volumes



Legend

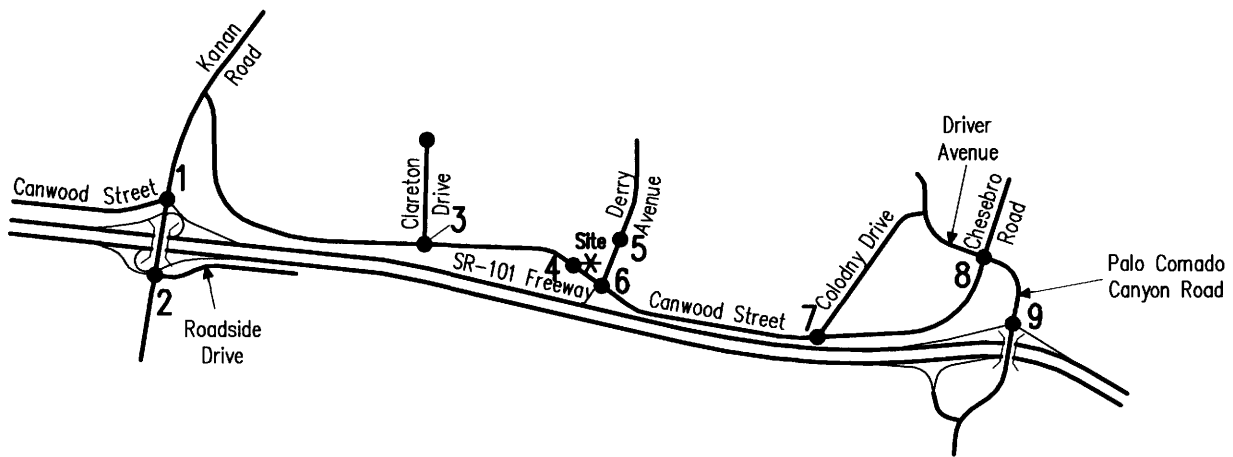
11.5 = Vehicles Per Day (1000's)



Figure 14

Opening Year (2009) Without Project

Morning Peak Hour Intersection Turning Movement Volumes

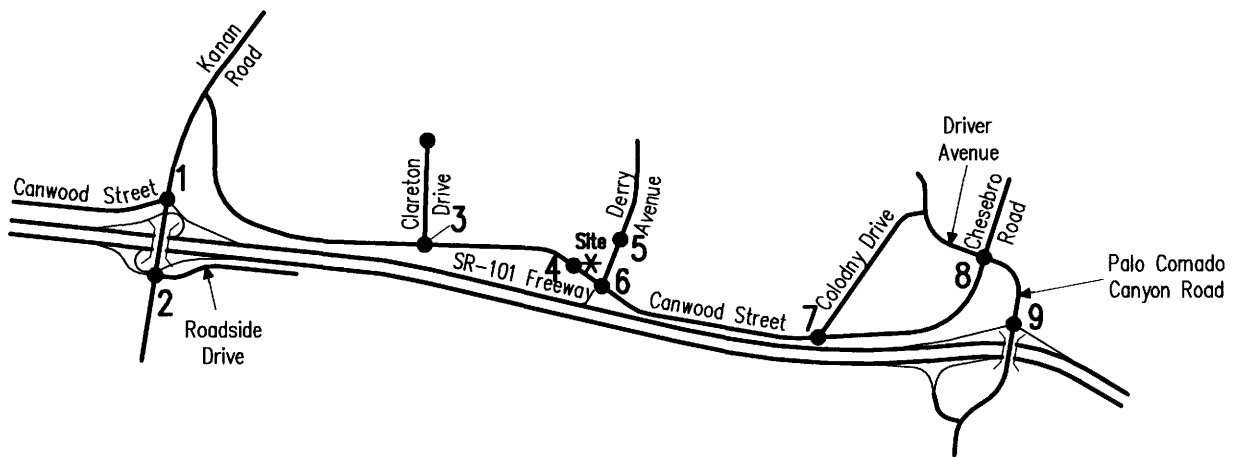


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Figure 15

Opening Year (2009) Without Project

Evening Peak Hour Intersection Turning Movement Volumes



1	2	3	4
1559 ← 539 ← 1020 → 0 ↑ 773 ↑ 66 ↓ 274 ↘ 1113	1435 ← 542 ← 707 → 186 ↑ 293 ↑ 0 ↓ 20 ↘ 313	345 ← 237 ← 0 → 108 ↑ 96 ↑ 191 ↓ 0 ↘ 287	0 ← 0 ← 0 → 5 ↑ 287 ↑ 0 ↓ 0 ↘ 287
240 ↖ 185 ↗ 1264 ↘ 476 ↙ 1747	1066 ↖ 384 ↗ 87 ↘ 585 ↙ 1009 ↚ 24 ↛ 1033	287 ↖ 157 ↗ 140 ↘ 0 ↙ 0 ↚ 0 ↛ 0	249 ↖ 249 ↗ 0 ↘ 0 ↙ 0 ↚ 0 ↛ 0
5	6	7	8
262 ← 0 ← 262 → 0 ↑ 0 ↑ 0 ↓ 0 ↘ 0	262 ← 137 ← 0 → 125 ↑ 66 ↑ 125 ↓ 0 ↘ 191	44 ← 29 ← 0 → 15 ↑ 16 ↑ 167 ↓ 0 ↘ 183	43 ← 9 ← 6 → 28 ↑ 52 ↑ 402 ↓ 116 ↘ 570
0 ↖ 0 ↗ 0 ↘ 0 ↙ 172	247 ↖ 106 ↗ 141 ↘ 0 ↙ 0 ↚ 0 ↛ 0	285 ↖ 36 ↗ 249 ↘ 0 ↙ 0 ↚ 0 ↛ 0	207 ↖ 11 ↗ 184 ↘ 12 ↙ 11 ↚ 5 ↛ 282 ↜ 278
9			
524 ← 131 ← 383 → 0 ↑ 279 ↑ 0 ↓ 229 ↘ 508			
0 ↖ 0 ↗ 0 ↘ 275 ↙ 265 ↚ 0 ↛ 540			

Kunzman Associates

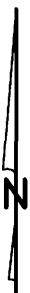
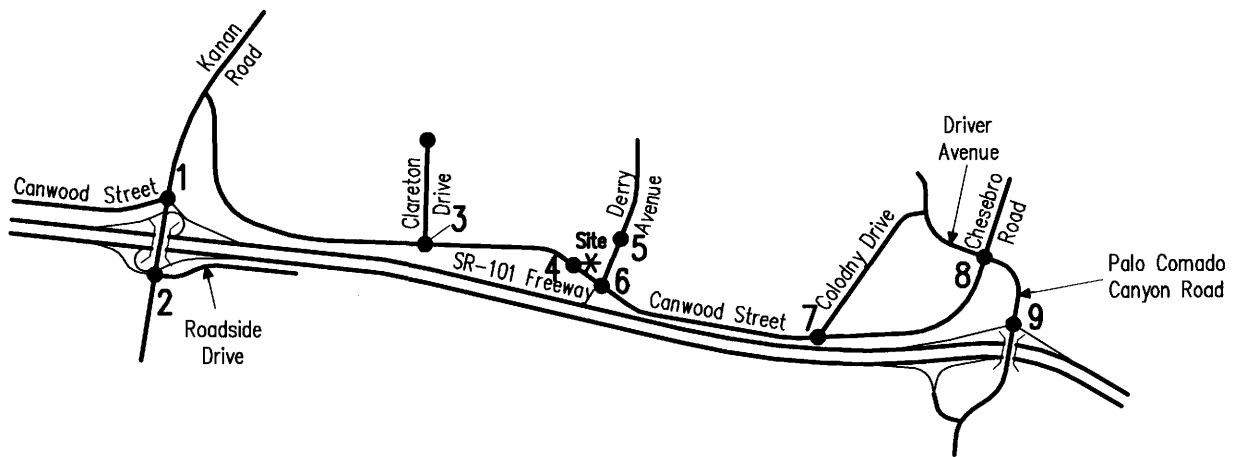
Intersection reference numbers are in upper left corner of turning movement boxes.

3902c/bbas

Figure 16

Opening Year (2009) With Project

Morning Peak Hour Intersection Turning Movement Volumes



1	2178 ← 505 ← 1673 → 0 ↑ 485 ↑ 35 ↑ 562	2	2232 ← 988 ← 1115 → 129 ↑ 98 ↑ 0 ↑ 22	3	99 ← 41 ← 0 ← 56 ↑ 87 ↑ 74 ↑ 0	4	6 ← 6 ← 0 → 0 ↑ 7 ↑ 154
2	154 → 50 → 0 ↓ 104	3	765 → 364 → 138 → 263	4	424 → 133 → 291 → 0	5	348 → 0 → 348 → 0
3	978 ↑ 768 ↑ 170	4	546 ↑ 515 ↑ 31	5	161 ↑ 0 ↑ 0	6	161 ↑ 0
4	60 ← 1 ← 59 → 4	5	63 ← 30 ← 0 → 33	6	53 ← 19 ← 0 → 34	7	53 ← 7 ← 3 → 43
5	196 ↑ 187 ↑ 0	6	209 ↑ 88 ↑ 120 ↑ 0	7	170 ↑ 10 ↑ 160 ↑ 0	8	387 ↑ 40 ↑ 140 ↑ 207
6	347 → 107 → 240 → 0	7	0 → 0 → 0	8	0 → 48 → 210 → 0	9	126 ↑ 5 ↑ 1 ↑ 120
7	196 ↑ 187 ↑ 0	8	0 → 0 → 0	9	0 → 0 → 0	10	206 ↑ 58 ↑ 148 ↑ 0
8	196 ↑ 187 ↑ 0	9	0 → 0 → 0	10	0 → 0 → 0	11	468 ↑ 248 ↑ 240 ↑ 0

Kunzman Associates

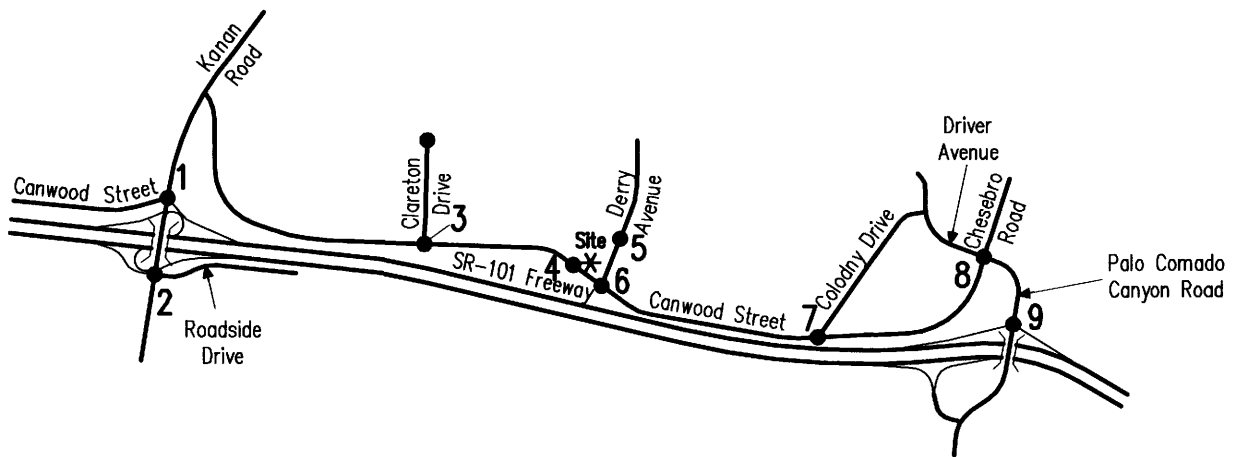
Intersection reference numbers are in upper left corner of turning movement boxes.

3902c/bbas

Figure 17

Opening Year (2009) With Project

Evening Peak Hour Intersection Turning Movement Volumes



1	1571 ↙ 539 ↔ 1032 ↘ 0	↖ 773 ↖ 66 ↖ 274	1113 ↖
2	240 ↖ 55 ↔ 185 ↘	↖ 7 ↖ 1274 ↖ 476 ↖	1757 ↖
3	1074 ↖	↖ 392 ↖ 87 ↖ 595 ↖	↖ 20 ↖ 24 ↖ 1036
4	310 ↖	↖ 237 ↖ 0 ↖ 109	↖ 98 ↖ 207 ↖ 0 ↖ 0
5	346 ↖	↖ 157 ↖ 153 ↖ 0	↖ 305 ↖
6	263 ↖	↖ 17 ↖ 0 ↖ 0 ↖ 0	↖ 10 ↖ 287 ↖ 0 ↖ 0
7	263 ↖	↖ 1 ↖ 262 ↖ 0	↖ 0 ↖ 0
8	261 ↖	↖ 137 ↖ 0 ↖ 137	↖ 66 ↖ 135 ↖ 0 ↖ 0 ↖ 201
9	288 ↖	↖ 45 ↖ 30 ↖ 0 ↖ 15	↖ 16 ↖ 176 ↖ 0 ↖ 0 ↖ 192
10	207 ↖	↖ 9 ↖ 6 ↖ 28	↖ 52 ↖ 402 ↖ 125 ↖ 579
11	0 ↖	↖ 535 ↖ 131 ↖ 404 ↖ 0	↖ 287 ↖ 0 ↖ 229 ↖ 516
12	14 ↖	↖ 2 ↖ 0 ↖ 12	↖ 186 ↖
13	288 ↖	↖ 38 ↖ 260 ↖ 0	↖ 0 ↖ 0 ↖ 0
14	207 ↖	↖ 11 ↖ 184 ↖ 12	↖ 289 ↖
15	0 ↖	↖ 11 ↖ 5 ↖ 273	↖ 541 ↖

VII. Cumulative Traffic Conditions

In this section, cumulative traffic conditions without and with the project are discussed. Figures 18 to 24 depict the cumulative traffic conditions.

A. Method of Projection

To account for areawide growth on roadways, cumulative traffic forecasts were developed from existing traffic volumes plus two (2) percent annual growth rate over a two (2) year period plus the approved and pending project tracking list, plus traffic generated by the Heschel School proposed in the County area just northeast of U.S. 101/Palo Camado Canyon Road. Table 6 lists the proposed land uses for the other development (see Figure 18).

B. Cumulative Average Daily Traffic Volumes

Cumulative without project average daily traffic volumes are as illustrated on Figure 19. The cumulative with project average daily traffic volumes are as illustrated on Figure 20.

C. Cumulative Levels of Service

The technique used to assess the operation of a signalized intersection is known as Intersection Capacity Utilization, as described in Appendix C. To calculate an Intersection Capacity Utilization value, the volume of traffic using the intersection is compared with the capacity of the intersection. The Intersection Capacity Utilization represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The technique used to assess the capacity needs of an unsignalized intersection is known as the Intersection Delay Method (see Appendix C). To calculate delay, the volume of traffic using the intersection is compared with the capacity of the intersection.

The Intersection Capacity Utilization/Delay for the cumulative without project traffic conditions have been calculated and are shown in Table 7. Cumulative without project morning and evening peak hour intersection turning movement volumes are shown on Figures 21 and 22, respectively.

The study area intersections are projected to operate at Level of Service D or better during the peak hours for cumulative without project traffic conditions, except for the following intersections that operate at Level of Service F during the evening peak hour (see Table 7).

Kanan Road (NS) at:
SR-101 Freeway SB Ramps/Roadside Drive (EW)

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

Cumulative without project Intersection Capacity Utilization/Delay worksheets are provided in Appendix C.

The Intersection Capacity Utilization/Delay for the cumulative with project traffic conditions have been calculated and are shown in Table 8. Cumulative with project morning and evening peak hour intersection turning movement volumes are shown on Figures 23 and 24, respectively.

The study area intersections are projected to operate at Level of Service D or better during the peak hours for cumulative with project traffic conditions, with improvements, except for the following intersections that operate at Level of Service F during the evening peak hour (see Table 8):

Kanan Road (NS) at:
SR-101 Freeway SB Ramps/Roadside Drive (EW)

Chesebro Road (NS) at:
SR-101 Freeway NB Ramps (EW)

Cumulative with project Intersection Capacity Utilization/Delay worksheets are provided in Appendix C.

D. Significant Transportation Impact

In the City of Agoura Hills, a significant impact would occur when a proposed project increases 2% of capacity (V/C increase > 0.02) at a facility that would operate at Level of Service D or worse with project added traffic volumes. For unsignalized intersections, the threshold is a 2% increase in entering volumes.

Table 9 depicts the cumulative project traffic contribution at the study area intersections. The project site does not significantly impact the study area intersections (see Table 9).