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August 29, 2012

To: Mr. Bruce Tabb  
Montecito  
402 W. Broadway, Suite 1320  
San Diego, California 92101

From: Justin Rasas, P.E.

RE: Montecito Road Bridge Over Santa Maria Creek Operations

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The purpose of this memo is to determine if the bridge width on Montecito Road over Santa Maria Creek would decrease the overall roadway traffic capacity of Montecito Road. The bridge is located on Montecito Road approximately 1,600 feet northwest of SR-67 in Ramona, California.

The County of San Diego does not list roadway traffic capacities specific to bridges. A review of national standards resulted in no references or data listing bridge traffic capacities.

The County of San Diego does provide guidance on how the Public Road Standards should be used when a roadway is not constructed per their current Public Road Standards. The current practice by the County is to apply a capacity at LOS D of 10,900 ADT to two lane roads if the existing 2-lane road predominantly has a minimum of two 12-foot lanes with 8-feet of paved/graded shoulder and is classified as a Light Collector or higher.

The bridge over Santa Maria Creek is approximately 130 feet in length, has two 12-foot travel lanes with about two feet of shoulder on each side for a total of about 28 feet of pavement. The section of Montecito Road that was analyzed as part of the project extends from Montecito Way to SR-67, a distance of approximately 9,100 feet. Thus, the bridge consists of about 1.4% of the Montecito Road segment analyzed as part of the Montecito project. The Montecito Road study segment is predominantly longer than the bridge, thus based on County guidance the traffic capacity is not affected by the slightly narrower portion of the bridge. The remainder segment of Montecito Road predominantly has the minimum 12-foot travel lanes and 8 feet of pave/graded shoulder thus, the noted 10,900 ADT at LOS D capacity can be applied to determine the roadway level of service without the need of additional roadway improvements.



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To show the segment operation of Montecito Road, existing plus project and year 2030 plus project volumes were obtained from the *Traffic Impact Analysis for Montecito Ranch (TM 5250)* dated April 24, 2008 (excerpt attached). As shown in **Table 1**, Montecito Road is calculated to operate at acceptable LOS (LOS D or better) with the short section of bridge over Santa Maria Creek.

**Table 1: Existing and Year 2030 with Project Roadway Operations**

Segment	Limits	ADT	Mobility Element	LOS D Capacity	2 Lane LOS
<u>Existing + Project</u>					
Montecito Rd	Montecito Way to Davis St	5,660	2.2E (Light Collector)	10,900	C
	Davis St to Main St (SR-67)	7,942	2.2E (Light Collector)	10,900	D
<u>Year 2030 + Project</u>					
Montecito Rd	Montecito Way to Davis St	7,874	2.2E (Light Collector)	10,900	D
	Davis St to Main St (SR-67)	9,392	2.2E (Light Collector)	10,900	D

As shown above, Montecito Road is calculated to operate at acceptable LOS with the short section of bridge over Santa Maria Creek. This is based on County guidance, where the Montecito Road study segment is predominantly longer than the bridge, thus the traffic capacity is not affected by the slightly narrower portion of the bridge.

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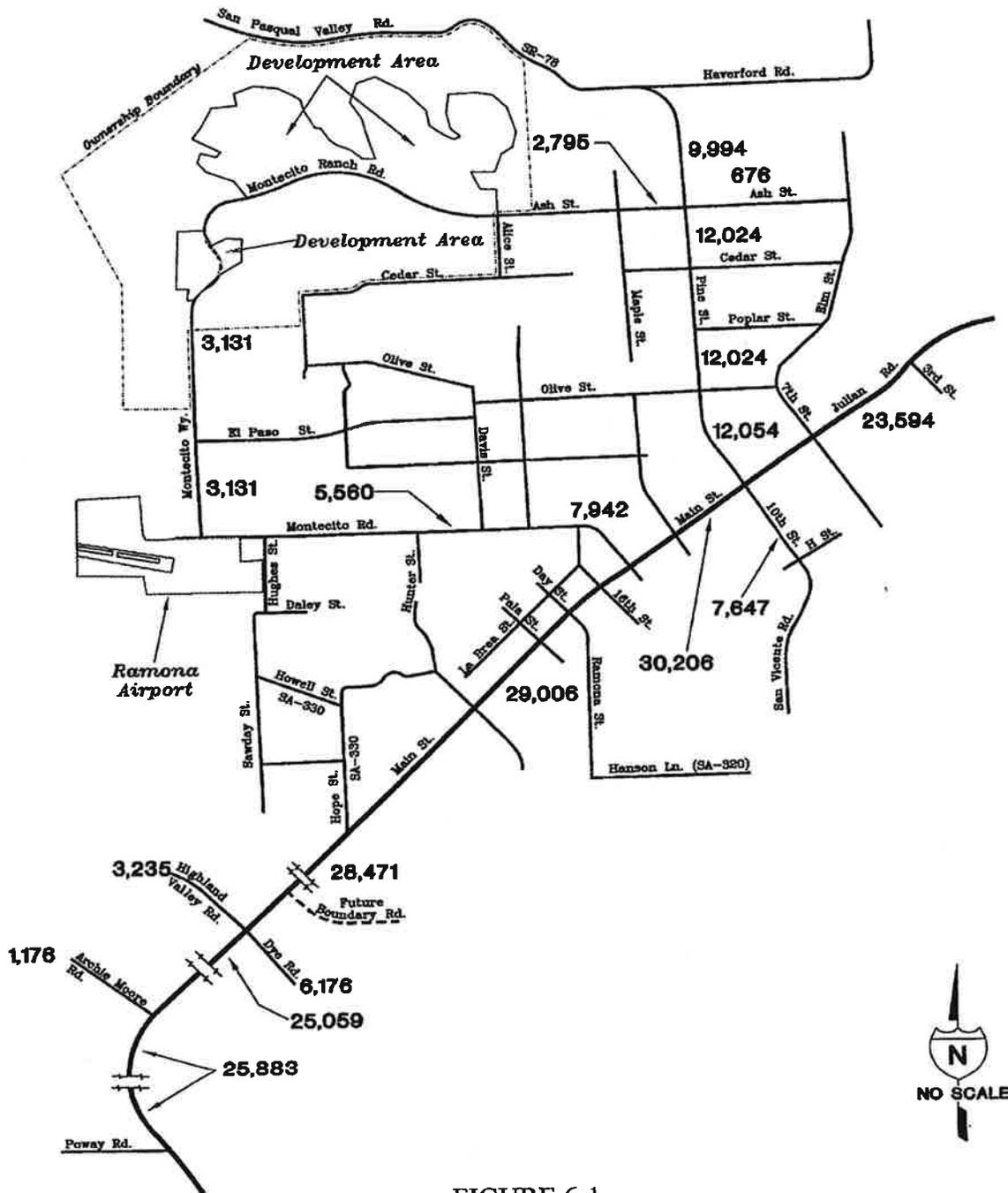


FIGURE 6-1  
 Existing + Project Average Daily Traffic

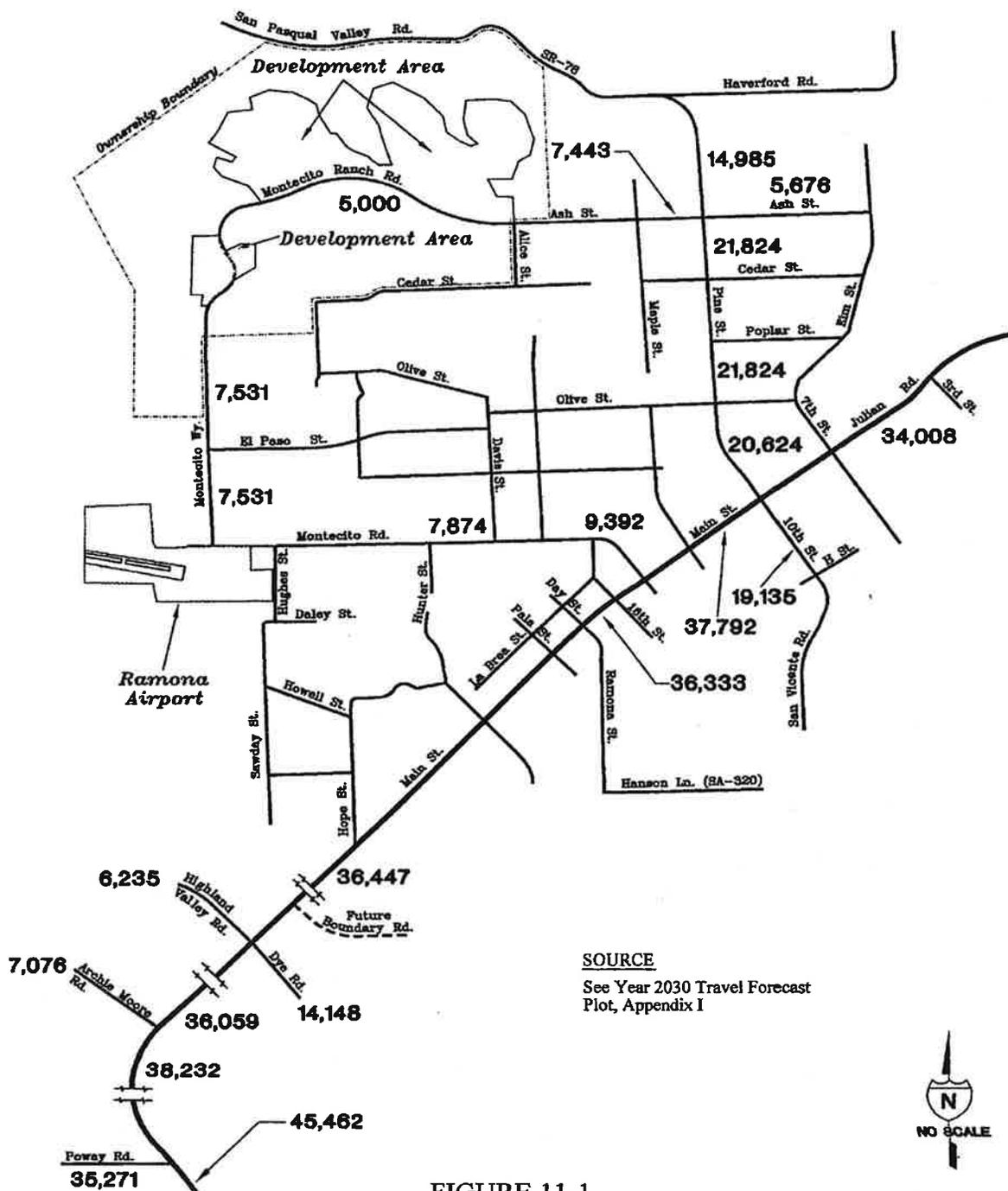


FIGURE 11-1  
 Year 2030 With Project Average Daily Traffic