

ORDINANCE NO. 951

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LANCASTER, CALIFORNIA, ESTABLISHING SPEED LIMITS ON LANCASTER BOULEVARD BETWEEN 10<sup>TH</sup> STREET WEST AND YUCCA AVENUE AND AMENDING SECTION 10.04.020, SUBPARAGRAPH D OF THE LANCASTER MUNICIPAL CODE

WHEREAS, section 22357 and 22358 of the California Vehicle Code require that local speed limits be determined based upon engineering and traffic surveys; and

WHEREAS, once established, speed limits shall not thereafter be revised except upon the basis of an engineering and traffic survey; and

WHEREAS, a speed limit shall be established by local ordinance; and

WHEREAS, the City of Lancaster, Department of Public Works Traffic Engineering Division has conducted the Engineering and Traffic Survey Report dated August 10, 2010, which is on file in the office of the City Clerk and incorporated herein by reference; and

WHEREAS, the City of Lancaster previously established speed limits on certain streets by adopting Ordinances 828, 851, 853, 872, and 919.

THE CITY COUNCIL OF THE CITY OF LANCASTER, CALIFORNIA, DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. Section 10.04.020 Subparagraph D of the Lancaster Municipal Code is hereby amended as follows:

“D. Speed Limits

1. The speed limit as recommended in the Engineering and Traffic Survey Report, dated October 30, 2003, incorporated herein by reference, is hereby established.
2. The speed limit as recommended in the Engineering and Traffic Survey Report, dated August 11, 2005, incorporated herein by reference, is hereby established.
3. The speed limits as recommended in the Engineering and Traffic Survey Reports, dated November 1 and 29, 2005, incorporated herein by reference, are hereby established.
4. The speed limits as recommended in Section 5.0 and Table 2 of the 2006 Engineering and Traffic Surveys Report, incorporated herein by reference, are hereby established.

5. The speed limits as recommended in Nos. 8-11 of the Findings and Recommendations and Table 4 of the Engineering and Traffic Survey Report, dated January 2009, incorporated herein by reference, are hereby established.
6. The speed limits as recommended in the Engineering and Traffic Survey Report, dated August 10, 2010, incorporated herein by reference, are hereby established.

Section 2. The City Clerk shall certify to the passage of this Ordinance and will see that it is published and posted in the manner required by law.

Section 3. This Ordinance will become effective 30 days after its adoption.

I, Geri K. Bryan, CMC, City Clerk of the City of Lancaster, do hereby certify that the foregoing ordinance was regularly introduced and placed upon its first reading on the \_\_\_\_ day of \_\_\_\_\_, 2010, and placed upon its second reading and adoption at a regular meeting of the City Council on the \_\_\_\_ day of \_\_\_\_\_, 2010 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:

APPROVED:

\_\_\_\_\_  
GERI K. BRYAN, CMC  
City Clerk  
City of Lancaster

\_\_\_\_\_  
R. REX PARRIS  
Mayor  
City of Lancaster

STATE OF CALIFORNIA            )  
COUNTY OF LOS ANGELES       ) ss  
CITY OF LANCASTER             )

CERTIFICATION OF ORDINANCE  
CITY COUNCIL

I, \_\_\_\_\_, \_\_\_\_\_ City of Lancaster,  
California, do hereby certify that this is a true and correct copy of the original Ordinance No. 951,  
for which the original is on file in my office.

WITNESS MY HAND AND THE SEAL OF THE CITY OF LANCASTER, on this \_\_\_\_\_  
day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_

(seal)



## Engineering and Traffic Survey

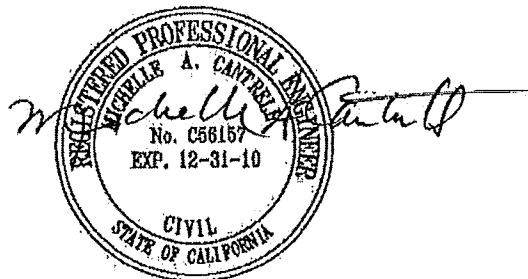
For

Lancaster Boulevard between 10<sup>th</sup> Street West and Yucca Avenue

August 10, 2010

MICHELLE A. CANTRELL  
City Traffic Engineer  
P.E. # C56167  
City of Lancaster  
Department of Public Works

August 10, 2010



## **Introduction**

Previously, a four-lane arterial posted at 35 miles per hour, Lancaster Boulevard between 10<sup>th</sup> Street West and Sierra Highway is being downsized to two, 12-foot wide travel lanes with 8-foot wide parallel parking lanes on each side and a 30-foot wide center median that will provide two banks of head-in, angle parking stalls interspersed with tree planters and street lights. East of Sierra Highway to Yucca Avenue, the Boulevard was previously a four-lane arterial posted at 30 miles per hour. The westbound lane configuration of this segment has been changed from two through lanes to one through lane and a trap left turn lane in order to transition to the newly configured Boulevard.

Traffic signals west of Sierra Highway will be removed and replaced with partial stop control on the cross streets, and yield control on Lancaster Boulevard. In addition to marked crosswalks at intersections, midblock crosswalks will also be authorized and marked. Signs and markings will be placed on the Boulevard to remind all road users that it is a shared roadway for motor vehicles and bicycles. At 10<sup>th</sup> Street West, a modern roundabout will eventually control traffic and serve as a gateway to the BLVD experience. Themed to attract a diversity of residents, businesses and patrons, the Boulevard will feature smart growth inspired development that will make it an urban destination for Antelope Valley and beyond. On special event days and weekends, the center median will convert to an open air market and concert stage/auditorium.

Given the radical transformation of the Boulevard, new and appropriate speed limits need to be established for these two segments. The three sections of the California Vehicle Code (CVC) that are pertinent to the establishment of the speed limits are as follows:

1. Section 22352 (a)(2)(A) sets a prima facie speed limit of 25 miles per hour on any highway in any business or residence district unless a different speed is determined by local authority under procedures set forth in the code.
2. Section 22357 (a) allows a local authority to determine upon the basis of an engineering and traffic survey a speed limit other than 25 miles per hour on any street subject to a prima facie limit of 25 miles per hour.
3. Section 22358.3 allows a local authority to determine upon the basis of an engineering and traffic survey a speed limit lower than the prima facie speed limit of 25 miles per hour in a business or residence district for any street that has a roadway not exceeding 25 feet in width and may declare a prima facie limit of 20 or 15 miles per hour.

The second provision above allowed the City of Lancaster to establish the current speed limit of 35 miles per hour on Lancaster Boulevard between 10<sup>th</sup> Street West and Sierra Highway and 30 miles per hour on Lancaster Boulevard between Sierra Highway and Division Street.

Reduced to two lanes and located in a business and residential district, the Boulevard between 10<sup>th</sup> Street West and Sierra Highway would have a prima facie speed limit of 25 miles per hour according to the first code provision. Finally, the third provision allows a further reduction of the 25 miles per hour prima facie speed limit on a street with a narrow roadway to 20 or 15 miles per hour.

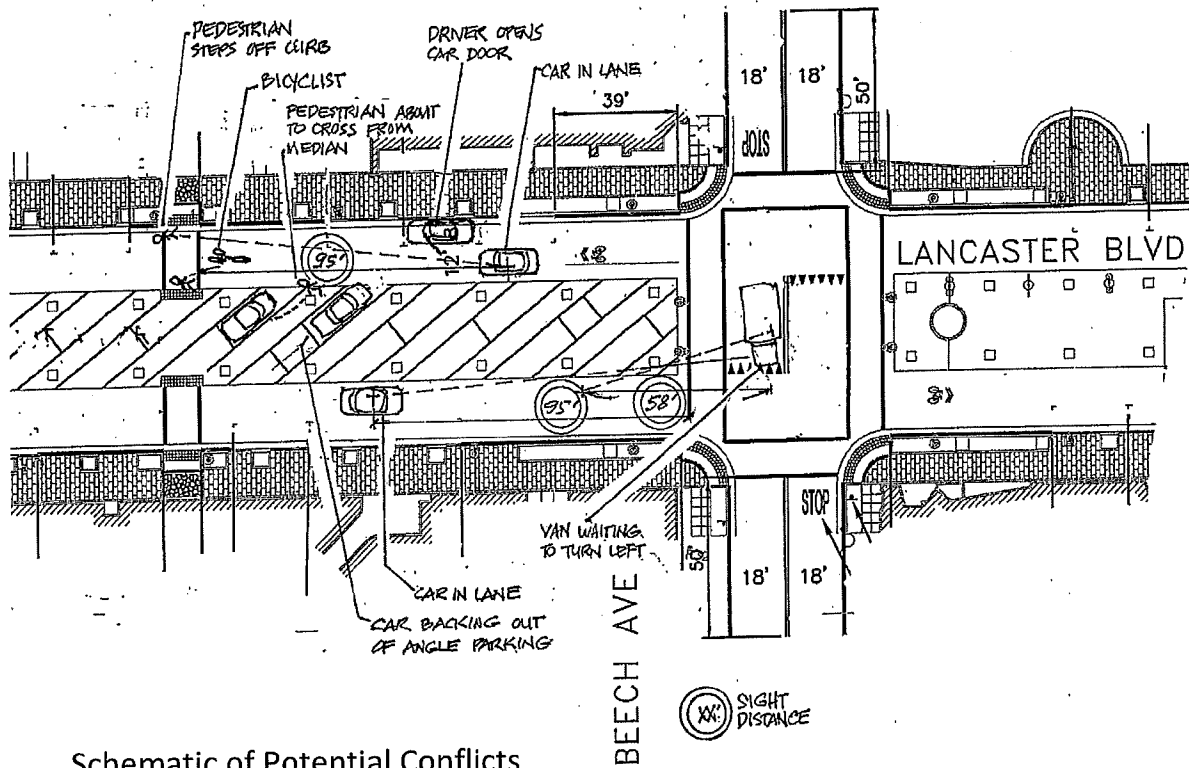
### **Lancaster Boulevard between 10<sup>th</sup> Street West and Sierra Highway**

#### **Prevailing Speeds**

Traffic-wise, a 12-foot travel lane between banks of angle and parallel parking stalls is, to some extent, comparable to any one-way drive aisle in the parking lot of a shopping center or college. To be sure, there are a few differences: the Boulevard will remain a 3,300 foot long public street. Parking lot aisles are private and much shorter in length. The Boulevard will likely be much busier than a parking lot. Still, there is insight to be gained in looking at parking lot speeds for comparison. Therefore, two spot speed surveys were conducted at similarly-configured parking lots at “free flow”, during their off-peak hours. The surveys show 85<sup>th</sup> percentile speeds of 13 and 14 mph, and 50<sup>th</sup> percentile speeds of 10 and 12 mph.

#### **Collision Risk**

To examine the potential of traffic collisions on the Boulevard, the schematic below is analyzed. Apart from passenger cars, traffic on the Boulevard will also consist of mail and other delivery vans, bicyclists and pedestrians. Cars may pull out from angle parking on the left, from parallel parking on the right, or from a cross street, left or right. The car ahead may come to a quick stop when the driver spots an open parallel parking stall. A pedestrian may cross midblock on the crosswalk or, although prohibited, directly from between cars in the center median, or from the cross street. After parking parallel, a driver may swing the door out into the travel lane to exit the car. A bicyclist sharing the road would likely be going at 10 to 15 miles per hour, slow enough to comfortably stop for any rushing pedestrian.



Schematic of Potential Conflicts

The new Boulevard will have no room for evasive action to avoid a collision. Only a stopping maneuver is available to a driver who is confronted with any of the above incursions by other traffic in the travelled way. He or she must travel at a low enough speed to stop in time. The following table shows the minimum stopping and slowing distances required for different vehicle approach speeds based on AASHTO's Policy on Geometric Design of Highways and Streets.

Initial Speed	Stopping Distance	Slowing Distance
	(Final Speed = 0)	(Final Speed = 10)
35	246	185
30	197	150
25	152	118
20	112	89
15	77	61
10	46	NA

Given the Boulevard's new geometry and expected traffic conditions, a driver's line of sight would be more restricted, resulting in shorter sight distances. As the schematic shows, the available sight distance would typically range from 60 to 100 feet. Therefore, an appropriate speed limit on the Boulevard would be in the range of 15 to 20 miles per hour. At those speeds, a driver would be afforded enough time to slow or stop, thereby avoid a collision.

### **Conditions Not Apparent**

Regulars who would become familiar with the new Boulevard after one or two visits would already know how fast they should go to handle any surprises effectively. For the first time visitor and occasional stray driver, gateway treatments and traffic signage will alert them to expect the unexpected in this very different three-quarter-mile segment of Lancaster Boulevard. Nevertheless, a posted speed limit that appropriately reflects the busy, market parking lot character of the Boulevard will help ensure that a first timer's visit to the Boulevard is safe and incident-free.

### **Other Factors Considered**

By its smart growth design, the new Boulevard will have retail and service businesses mixed in with high-density residential uses along its nearly three-quarter mile reach. It currently meets the definition of a business district as defined in the CVC since 100% of the contiguous property fronting the Boulevard is occupied by buildings in use for business.

As envisioned, the Boulevard will be teeming with pedestrians. Visitors, patrons, vendors and business operators will populate the sidewalks, crosswalks and center refuges on the Boulevard. Vehicles will share the 12-foot wide traffic lane with bicyclists. To add a measure of safety for crossing pedestrians and bicyclists travelling on the same roadway, vehicle speeds should be lowered enough to narrow the speed gaps among the Boulevard's diverse users.

### **Conclusions and Recommendation**

The above factors indicate that the prima facie speed limit of 25 miles per hour is more than is reasonable and safe for this narrow roadway segment. Survey results indicate that a speed limit of 15 miles per hour is justified and appropriate for the safe and orderly movement of traffic. It is therefore recommended that a prima facie speed limit of 15 miles per hour be established on Lancaster Boulevard between 10<sup>th</sup> Street West and Sierra Highway.



## **Lancaster Boulevard between Sierra Highway and Yucca Avenue**

### **Prevailing Speeds**

A speed zone survey was conducted on Lancaster Boulevard between Sierra Highway and Yucca Avenue. Speed measurements were taken with radar on a weekday during an off peak traffic period to measure free flowing traffic conditions of unimpeded traffic. See Radar Survey Sheet in the Appendix. The 85<sup>th</sup> percentile speed was determined to be 24 miles per hour.

### **Collision History**

A review of the most recent, available collision data revealed that there have been five collisions on this segment over the last three years. The collision rate for this segment is 3.06 Acc/MVM which is more than the expected rate of 2.3 Acc/MVM.

### **Conditions Not Readily Apparent**

A survey of field conditions did not reveal any roadway or traffic conditions that are not readily apparent to drivers.

### **Conclusions and Recommendation**

The above survey results indicate that the currently established speed limit of 30 miles per hour is more than is reasonable and safe for this transitional roadway segment. Survey results indicate that a speed limit of 25 miles per hour is justified and appropriate for the safe and orderly movement of traffic. It is therefore recommended that a prima facie speed limit of 25 miles per hour be established on Lancaster Boulevard between Sierra Highway and Yucca Avenue.

## APPENDIX

# City of Lancaster Engineering and Traffic Survey Summary

Street: LANCASTER BLVD  
Limits: YUCCA AVE  
SIERRA HWY

Field Observer: JHC  
Checked By:  
Date: 8/6/2010

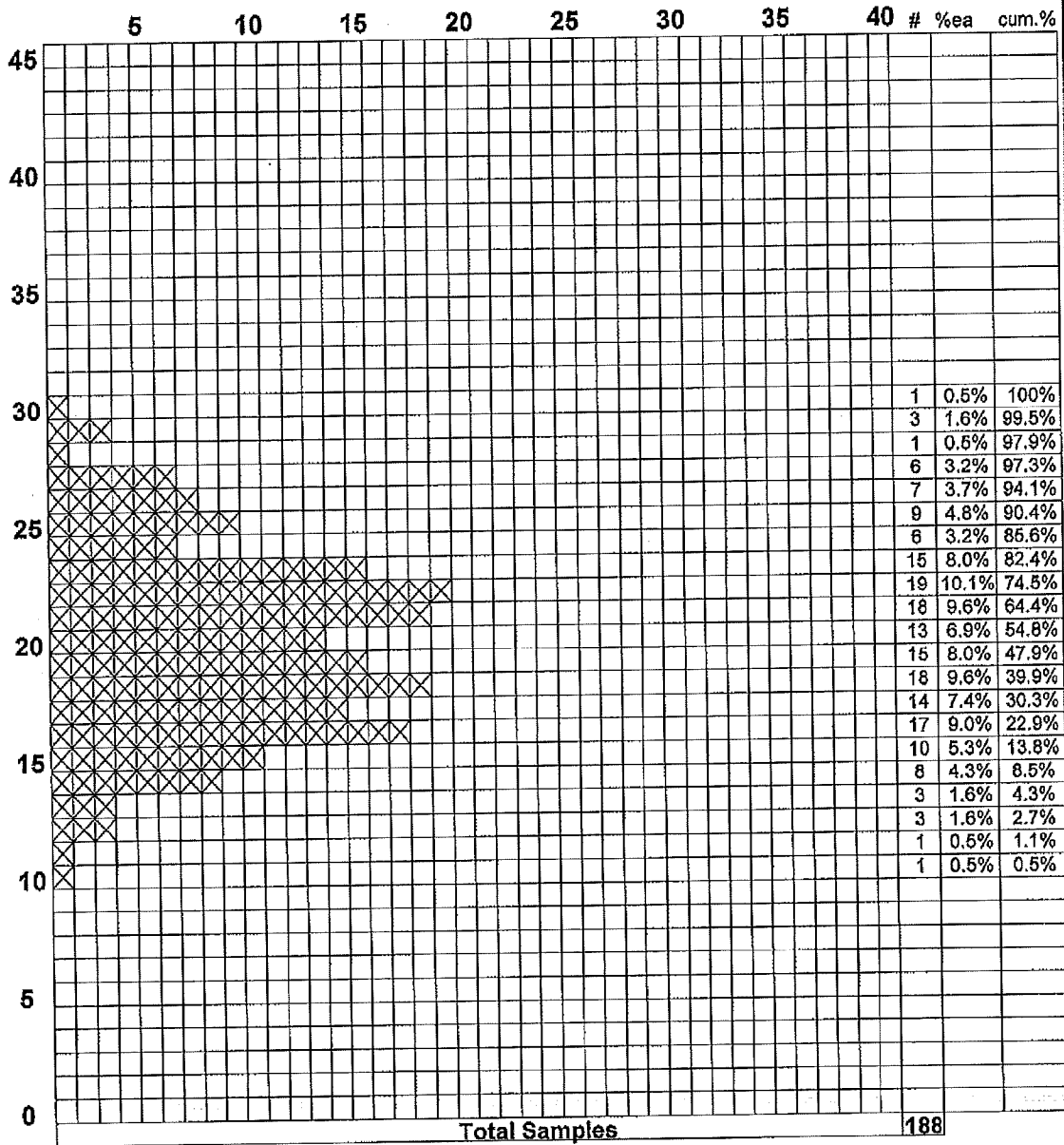
<b>Factors</b>	<b>Direction: <u>East/West</u></b>		
<b><u>A. Prevailing Speed Data</u></b>			
Location of Survey	50 yards east of R/R		
85th Percentile	23.8		
10 mph Pace	14 - 23		
Percent in Pace	78.2%		
Posted Speed Limit	30		
<b><u>B. Collision History</u></b>			
Date Range Covered	7/1/2007	To 6/30/2010	( 3 years )
Total Collisions	5		
Collision Rate (Acc/MVM)	3.056		
Expected Collision Rate	2.3		
<b><u>C. Traffic Factors</u></b>			
Average Daily Traffic	14000		
Length of Segment	563		
Lane Configuration	4 Lane with Raised Median		
Street Classification	Secondary Arterial		
<b><u>D. Conditions Not Readily Apparent</u></b>			
Conditions			
Roadway Geometrics			
Comments			
<b><u>E. Adjacent Land Use</u></b>			
	Commercial		
Posted Speed Limit	30		
Speed Limit Change?	Yes		
Revised Speed Limit	25		
Approved and Authorized for release by City of Lancaster:			
_____		_____	
		Date	Loc. #

**City of Lancaster  
Traffic Engineering Division**

Street Name: LANCASTER BLVD  
Limits: YUCCA AVE to SIERRA HWY

**Radars Survey Sheet**

X=East/West



85th Percentile Speed: <u>23.8</u>	Date of Survey: <u>8/6/2010</u>	Start Time: <u>10:00</u>
50th Percentile Speed: <u>19.3</u>	Weather: <u>Clear</u>	End Time: <u>11:00</u>
15th Percentile Speed: <u>15.1</u>	Road Condition: <u>Good</u>	Posted Speed: <u>30</u>
10 MPH Pace: <u>14- 23</u>	Street Class.: <u>Secondary Arterial</u>	Observer: <u>JHC</u>
Number in Pace: <u>147</u>	Conditions not Apparent:	
Percent in Pace: <u>78.2%</u>		