Terry O. Brown P.E.

Heritage Neighborhood Marketplace (Ladera Dr. / Unser Blvd.)

Access Justification Study

Draft – December 31, 2007 Final – February 2, 2009

Presented to:

New Mexico Department of Transportation District 3 & City of Albuquerque

Transportation Development Section

Prepared for:

SunCal Companies 201 3rd St. NW, Suite 500 Albuquerque, NM 87102



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Terry & Bra

Civil / Transportation Engineering

Monday, December 31, 2007

Tony Abbo, District 3 Traffic Engineer New Mexico Department of Transportation 7500 Pan American Freeway N.E. P. O. Box 91750 Albuquerque, New Mexico 87199-1750

Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

Dear Tony:

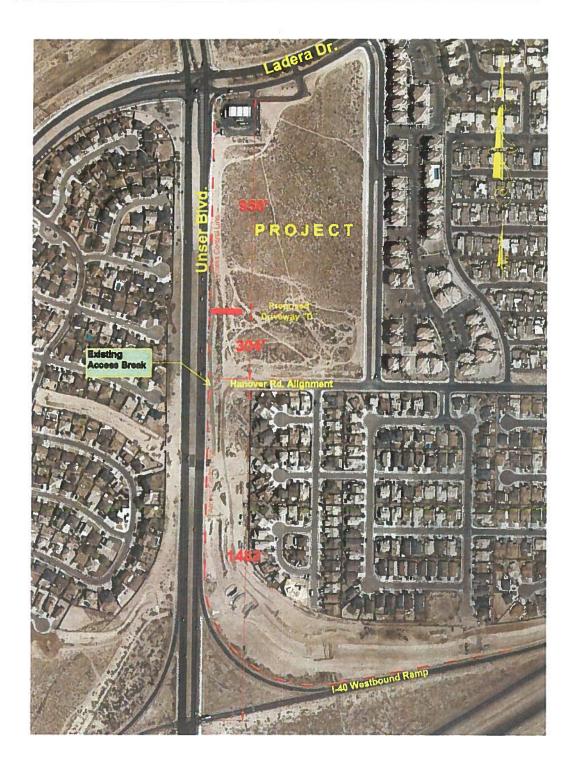
This letter constitutes the access justification analysis required to demonstrate the feasibility of permitting a full access signalized access on the east side of Unser Blvd. approximately 900 feet south of the intersection of Ladera Dr. / Unser Blvd. (centerline to centerline). The proposed access driveway is also located approximately 2,000 feet north of the I-40 Westbound off-ramp where it perpendicularly intersects Unser Blvd. (exclusive of the right turn ramp). Plans are currently in progress for an approximately 200,000 S.F. retail commercial development at the southeast corner of Ladera Dr. / Unser Blvd. (See Vicinity Map on Page A-1 of this report). The property is currently zoned for RD uses in the City of Albuquerque. The proposed commercial site plan has been proposed for approval by the City of Albuquerque Environmental Planning Commission.

Access to the new project is proposed along Ladera Dr. (2 driveways), along Market Rd. (1 driveways), and along Hanover Rd. (1 driveway). In order to properly access the new development and minimize delays at the intersection of Ladera Dr. / Unser Blvd. additional access is needed onto Unser Blvd. between Ladera Dr. and Interstate 40 (Driveway "D").

Unser Blvd. is classified as a Limited Access Principal Arterial Roadway on the Long Range Roadway Plan for the Albuquerque Metropolitan Area from Dennis Chavez Blvd. in Albuquerque to Southern Blvd. in Rio Rancho. Generally speaking, partial access to Unser Blvd. is permitted at 1/4 mile intervals and full access at ½ mile intervals. In addition, access to Unser Blvd. south of Ladera Dr. is restricted by the Access Control Line for the I-40 / Unser Blvd. Interchange. Following is a graphical depiction showing the general geometry of Unser Blvd. near Ladera Dr. and showing the approximation of the access control line for the I-40 / Unser Blvd. Interchange.

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The requested access point on Unser Blvd. will be required to be approved by both the Transportation Coordinating Committed (T.C.C.) at the Mid-Region Council of Governments and the Access Control Board at the New Mexico Department of Transportation. The requested access is located approximately 950 feet south of the south curbline of Ladera Dr. on Unser Blvd. (See previous page for graphic dimensioned drawing).

The current access control line for the I-40 / Unser Blvd. interchange extends north to Ladera Dr. However, there is an existing break in the existing access control line which is aligned with the Hanover Rd. alignment. The Hanover Rd. alignment is slightly more than 300 feet south of the proposed Driveway "D" on Unser Blvd. accessing this project.

The current approved access points on Unser Blvd. as depicted on the Long Range Roadway Plan for the Albuquerque Metropolitan Area in the vicinity of the proposed Heritage Neighborhood Marketplace are listed as follows:

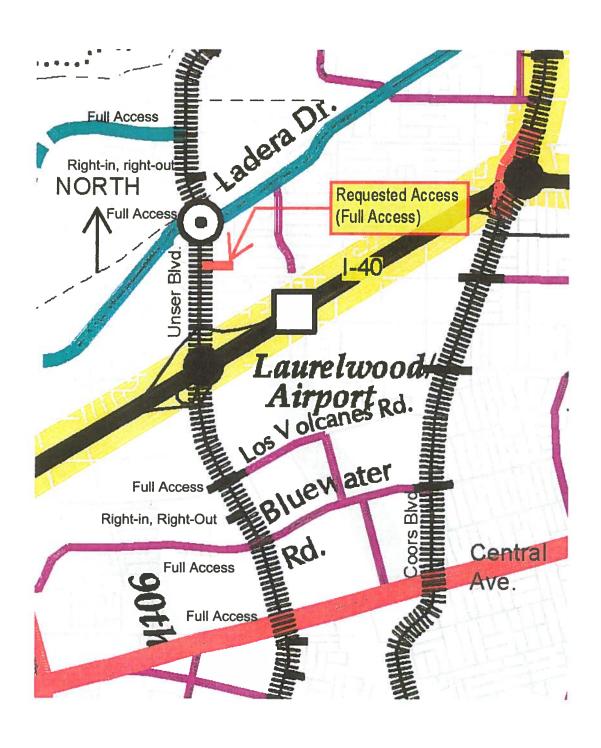
- a) I-40 South Ramp [full access]
- b) I-40 North Ramp [full access]
- c) Ladera Dr. [full access]
- d) La Mirada [right-in, right-out]
- e) Tierra Pintada (Old 98th St.) / Vista Oriente [full access]

Additionally, there was a right-in only access driveway approved recently on the east side of Unser Blvd. north of Tierra Pintada. The right-in only driveway serves a new commercial / office development including a Walgreen's Pharmacy store.

The following map demonstrates the currently approved access points on Unser Blvd. in the vicinity of this project:

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Approval of the requested access break will not adversely impact other approved access points along Unser Blvd. Similarly, the approval of the new access point on the east side of Unser Blvd. approximately 950 feet south of the intersection of Ladera Dr. / Unser Blvd. will not change volumes at the I-40 / Unser Blvd. Interchange. It will, however, reduce and / or convert turning movement volumes at the intersection of Ladera Dr. / Unser Blvd. and therefore, provide a benefit to the adjacent transportation system.

The process of quantifying the benefit of permitting the proposed access to Unser Blvd. was performed with the following steps:

- Determine the number of trips that are projected for the AM and PM Peak Hour periods associated with full development of the proposed retail commercial project at the southeast corner of Ladera Dr. / Unser Blvd. The AM and PM Peak Hour volumes of trips generation by the project will be determined based on ITE Trip Generation Manual, 7th Edition (2003).
- 2) Determine trip distribution of the newly generated trips based on Mid-Region Council of Governments' Socioeconomic data. For retail commercial trips, the distribution was determined based on distribution of population within a two-mile radius of the project.
- 3) Determine trip assignments to the intersections and driveways in the analysis based on the results of the trip distribution analysis utilized logical routing to and from the project.
- 4) Utilize Mid-Region Council of Governments' Regional Transportation Model data to forecast 2010 and 2030 background traffic volumes at intersections analyzed in this study.
- 5) Add the trips generated by the development into the forecast volumes for the years 2010 (implementation year) and 2030 (horizon year) to obtain the forecast 2010 and 2030 BUILD Conditions volumes. The BUILD Condition volumes only will be used in this Access Justification Study. The NO BUILD Volumes will be utilized in the Traffic Impact Study. The BUILD Volumes in this study will be applied for four different Cases to compare the results. The first case is Case "F" which evaluates the transportation conditions associated with the implementation of the proposed full-access driveway on Unser Blvd. The second case (Case "L") evaluates the transportation conditions associated with implementation of a right-turn-in, right-turn-out, left-turn-in only driveway on Unser Blvd. The third case (Case "R") evaluated the transportation conditions associated with implementation of a right-turn-in, right-turn-out only driveway on Unser Blvd. The final case (Case "N") evaluates the transportation conditions associated with no access directly to Unser Blvd. from this project.
- 6) Evaluate the intersections of Ladera Dr. / Unser Blvd., Ladera Dr. / Market Rd., Ladera Dr. / Driveway "A", Driveway "B" / Market Rd., Hanover Rd. / Driveway "C", and Driveway "D" / Unser Blvd. to determine benefit of each Case analyzed.

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Intersection Delays Study

Implementation of a full access on Unser Blvd. south of Ladera Dr. for the proposed development will have the following impacts on BUILD volumes at the intersection of Ladera Dr. / Unser Blvd.:

- 1) A percentage of the eastbound thru movements will be converted to right turn movements.
- 2) Virtually no westbound left turn volumes will be generated by this project at Ladera Dr.
- 3) A percentage of westbound thru movements will be converted to northbound left turn movements.
- 4) A percentage of westbound right turn movements will be converted to northbound thru movements.
- 5) A percentage of northbound right turn movements will be eliminated.
- 6) A percentage of southbound left turn movements will be converted to southbound thru movements.

Overall, some turning movements will change as outlined above and the overall volumes at the intersection will be reduced as outlined above. The change in turning movements and the reduction in volumes at the intersection are both the result of the new access to Unser Blvd. as requested. The new access will provide an alternate means of entering and exiting the new commercial development. Traffic entering the project from the north will be able to turn left (southbound to eastbound) into the new driveway, thus reducing the southbound left turn volume on Unser Blvd. at Ladera Dr. Similarly, traffic exiting this project desiring to travel south on Unser Blvd. will be able to turn left from the new driveway (westbound to southbound) and, therefore, will not have to travel through the intersection of Ladera Dr. / Unser Blvd. Most importantly, the absence of the full access driveway on Unser Blvd. will force all traffic desiring to travel south on Unser (i.e., to access I-40) to exit onto Market Rd., then turn left onto Ladera Dr. and make a second left turn on Ladera Dr. at Unser Blvd. This not only is detrimental to the development itself, but also has a substantial negative impact on Ladera Dr. / Unser Blvd.

Analysis of the four Cases (Case "F", Case "L", Case "R", and Case "N") were performed using Synchro (Version 6) software. Signalized and unsignalized intersection delay and levels-of-service were calculated for each Case and a summary of the results report in the tables that follow:

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Analysis on Intersection #2 (Ladera Dr. / Unser Blvd.)

The intersection of Ladera Dr. / Unser Blvd. is currently a signalized intersection. Both Ladera Dr. and Unser Blvd. are major streets on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. Unser Blvd. is classified as a Limited Access Principal Arterial Roadway and Ladera Dr. is classified as a Minor Arterial Roadway. Unser Blvd. is generally a four or a six lane facility near this project. Ladera Dr. is a four lane divided urban roadway in the vicinity of this project.

A summary of the delays at the intersection of Ladera Dr. / Unser Blvd. associated with the 2010 and 2030 AM and PM Peak Hour BUILD conditions for each Case analyzed in this study are summarized in the following table:

intersection No.	#4
2010 AM Peak Hour	CAPPINED.
Case "F"	D - 43.3
Case "L"	D - 54.5
Case "R"	D - 51.4

D - 49.4

Case "N"

2010 PM Peak Hour	16989
Case "F"	D - 49.1
Case "L"	E-77.3
Case "R"	E-79.7
Case "N"	E - 76.8

Intersection No.	#2
2030 AM Peak Hour	
Case "F"	F - 124.8
Case "L"	F - 141.0
Case "R"	F - 133.8
Case "N"	F - 129.1

2030 PM Peak Hour	THE REAL PROPERTY.
Case "F"	F - 176.4
Case "L"	F - 206.4
Case "R"	F - 212.6
Case "N"	F - 225.8

There is a noticeable reduction in delay at the intersection for both the 2010 AM and PM Peak Hour periods as well as the 2030 AM and PM Peak Hour periods resulting from implementation of a full access driveway on Unser Blvd. south of Ladera Dr. The reduction in delay for the PM Peak Hour analysis is significant. It is up to approximately 50 seconds improvement in delay. The average delay reported in the table above is a weighted average delay at the intersection. When considering both the reduced average delay and the reduced traffic volume, the total intersection delay (vehicle-hours) shows sizeable benefit. The following table reports the total delays at the intersection for the various Cases (average delay x total intersection volume):

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Ladera Dr. / Unser Blvd.

		2010			2030						
AM	Delay	Volume	Tot. Delay	Incr.	AM	Delay	Volume	Tot. Delay	Incr.		
Case "F"	43.3	4,962	214,855		Case "F"	124.8	7,083	883,958			
Case "L"	54.5	5,106	278,277	30%	Case "L"	141.0	7,227	1,019,007	15%		
Case "R"	51.4	5,106	262,448	22%	Case "R"	133.8	7,227	966,973	9%		
Case "N"	49.4	5,319	262,759	22%	Case "N"	129.1	7,440	960,504	9%		
PM	Delay	Volume	2010	2010	PM	Delay	Volume	2030	2030		
Case "F"	49.1	6,895	338,545		Case "F"	176.4	9,364	1,651,810			
Case "L"	77.3	7,235	559,266	65%	Case "L"	206.4	9,704	2,002,906	21%		
Case "R"	79.7	7,235	576,630	70%	Case "R"	212.6	9,704	2,063,070	25%		
Case "N"	76.8	7,622	585,370	73%	Case "N"	225.8	10,091	2,278,548	38%		

The preceding table demonstrates that he benefit gained by permitting a full access driveway on Unser Blvd. south of Ladera Dr. during the 2010 PM Peak Hour BUILD condition is a substantial reduction in total intersection delay. The increase in intersection delay if the full access is not permitted varies from 65% to 73%. As previously demonstrated, the change in the average delays at the intersection follow a similar trend.

The following table presents a more detailed view of the delays and levels-of-service for individual turning movements as well as the entire intersection of Ladera Dr. / Unser Blvd. for the various Cases:

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Intersection No. #2 (Ladera Dr. / Unser Blvd.)

2010 AM Peak H	010 AM Peak Hour					2030 AM Peak Hour					
Ladera Dr.	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Market Rd.)	Case "F"	Case "L"	Case "R"	Case "N"		
EB Left	C - 33.4	C - 33.4	C - 33.4	C - 32.6	NB Left	D - 48.3	D - 47.0	D - 47.0	D - 48.0		
EB Thru	E - 65.7	E - 65.7	F - 82.4	F - 82.4	NB Thru	F - 102.1	F - 102.1	F - 128.8	F - 128.8		
EB Right	D - 53.2	E-66.7	D - 54.9	D - 54.9	NB Right	F - 118.5	F - 118.5	F - 95.0	F - 95.0		
Ladera Dr.	770743	N. Page			Minor St. (Market Rd.)						
WB Left	E - 66.7	F - 83.4	E - 72.4	E-72.4	SB Left	F - 239.5	F - 280.1	F - 280.7	F - 358.0		
WB Thru	D-37.4	C - 32.3	C-31.4	C - 33.2	SB Thru	D - 42.7	D - 39.3	D - 39.3	D - 41.9		
WB Right	D-37.4	C - 32.3	C-31.4	C - 33.2	SB Right	D - 42.7	D - 39.3	D - 39.3	D - 41.9		
Unser Blvd.			80000	THE STATE	Minor St. (Market Rd.)		The state of				
NB Left	E - 58.6	F - 83.7	F - 83.7	E - 62.6	SB Left	F - 167.6	F - 170.8	F - 170.8	F - 120.5		
NB Thru	B - 18.5	C - 26.8	C - 31.5	C-30.4	SB Thru	C - 26.1	C - 32.8	D - 38.8	D-47.8		
NB Right	A-7.4	A - 9.2	B - 11.1	B - 15.5	SB Right	A - 8.6	B - 10.7	B - 13.1	B - 19.4		
Unser Blvd.		NEW MARKET			Minor St. (Market Rd.)				Marin (S)		
SB Left	D - 51.9	D - 52.3	D - 50.1	D - 50.1	SB Left	E - 70.3	E-70.3	E-62.4	F - 87.2		
SB Thru	D-47.9	E-66.0	E - 56.8	E - 56.8	SB Thru	F - 202.7	F - 226.5	F - 202.9	F - 214.8		
SB Right	A - 7.9	B - 11.4	B - 11.9	B - 11.5	WB Left	B - 10.5	B - 11.8	B - 11.8	B - 11.5		
Intersection:	D - 43.3	D - 54.5	D - 51.4	D - 49.4		F - 124.8	F - 141.0	F - 133.8	F - 129.1		

intersection:	D - 43.3	D - 34.3	D - 31.4	D - 45,4		r - 124.0	r - 141.U	Г - 133.0	r - 129.1
2010 PM Peak H	our				2030 PM Peak Ho	ur			
Ladera Dr.	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Market Rd.)	Case "F"	Case "L"	Case "R"	Case "N"
EB Left	F-81.8	D-51.4	D - 51.6	F-96.6	NB Left	F - 269	F-269	F-269	F-269
EB Thru	D - 52.4	D - 53.0	E-57.3	E-56.3	NB Thru	E-77.9	F-93.1	F - 124.0	F-124
EB Right	C-30.1	C - 32.7	C-30.4	C-31.8	NB Right	C-33.0	C-34.9	C - 33.8	C - 33.8
Ladera Dr.	- CARLES				Minor St. (Market Rd.)		BERRY		
WB Left	E-76.3	F-119.6	F - 137.3	F - 122.6	SB Left	F - 258.3	F - 362.5	F - 394.2	F - 362.5
WB Thru	E - 59.7	D-43.8	D-45.4	E-63.9	SB Thru	F - 212.8	F - 136.4	F - 153.0	F - 278.5
WB Right	E - 59.7	D-43.8	D-45.4	E-63.9	SB Right	F - 212.8	F - 136.4	F - 153.0	F - 278.5
Unser Bivd.	230200	TO WES			Minor St. (Market Rd.)				
NB Left	E-78.4	F - 125.2	F-90.6	F-98.2	SB Left	F-327	F - 353.8	F - 353.8	F-313.3
NB Thru	D-40.3	F - 87.4	F - 108.3	F-92.3	SB Thru	F - 226	F - 282.2	F - 295.5	F - 279.8
NB Right	B - 11.8	B - 12.7	B - 15.3	C - 32.0	SB Right	D-47.4	E-58.2	E-68.3	F - 167.2
Unser Blvd.			NAME OF	STATE OF THE PARTY	Minor St. (Market Rd.)			-	
SB Left	F-81.4	F - 168.8	F - 145.4	F - 146.8	SB Left	F-241	F-241.4	F - 253.4	F - 253.4
SB Thru	D-45.3	F - 85.1	E-72.2	E - 65.6	SB Thru	F - 132.1	F - 168.5	F - 126.6	F - 138.7
SB Right	C-24.3	C - 23.2	C-24.2	C - 25.5	WB Left	C - 22.6	C - 25.0	C-24.2	C - 25.1
Intersection:	D - 49.1	E - 77.3	E - 79.7	E - 76.8		F - 176.4	F - 206.4	F - 212.6	F - 225.8

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Analysis on Intersection #7 (Ladera Dr. / Market Rd.)

The intersection of Ladera Dr. / Market Rd. is currently an unsignalized full access intersection. Ladera Dr. is classified as a Minor Arterial roadway on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. Market Rd. is not classified on the Long Range Roadway Plan for the Albuquerque Metropolitan Area, but is considered a local public street owned and maintained by the City of Albuquerque. Market Rd. is a two lane urban local roadway with curbs and gutters on both sides of the street.

A summary of the delays at the intersection of Ladera Dr. / Market Rd. associated with the 2010 and 2030 AM and PM Peak Hour BUILD conditions for each Case analyzed in this study are summarized in the following table:

Intersection No. #7 (Ladera Dr. / Market Rd.)

2010 AM Peak Ho	ur		VVIII		2030 AM Peak Hour					
Minor St. (Market Rd.)	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Market Rd.)	Case "F"	Case "L"	Case "R"	Case "N"	
NB Left	F - 82	F - 394	F - 396	F - 606	NB Left	F - 81	F - 379	F - 381	F - 587	
NB Thru	B - 12	B - 12	B - 12	B - 12	NB Thru	B - 12	B - 12	B - 12	B - 12	
NB Right	B - 12	B - 12	B - 12	B - 12	NB Right	B - 12	B - 12	B - 12	B - 12	
Minor St. (Market Rd.)		TO STATE OF			Minor St. (Market Rd.)					
SB Left	D-31	D-31	D-31	D-31	SB Left	D - 32	D - 32	D - 32	D - 32	
SB Thru	D-31	D - 31	D - 31	D - 31	SB Thru	D - 32	D - 32	D - 32	D - 32	
SB Right	D-31	D-31	D - 31	D - 31	SB Right	D - 32	D - 32	D - 32	D - 32	
Major St. (Market Pl.)					Major St. (Market Pl.)					
EB Left	A-1	A-1	A-1	A-1	EB Left	A-1	A - 1	A-1	A-1	
WB Left	B - 10	B - 10	B - 10	8 - 10	WB Left	B - 10	B - 10	B - 10	B - 10	

2010 PM Peak Ho	<u>ur</u>				2030 PM Peak Hour					
Minor St. (Market Rd.)	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Market Rd.)	Case "F"	Case "L"	Case "R"	Case "N"	
NB Left	F - 292	F-Err	F-Err	F-Err	NB Left	F-947	F-err	F-en	F-err	
NB Thru	B-15	B-15	B - 15	B-15	NB Thru	C-23	C-23	C-23	C-23	
NB Right	B - 15	B-15	B - 15	B-15	NB Right	C-23	C-23	C-23	C-23	
Minor St. (Market Rd.)	The Theory	BATTERS.	DANE POR	PHE SER	Minor St. (Market Rd.)					
S8 Left	F-121	F - 121	F - 123	F - 123	SB Left	F - 601	F-601	F-613	F-613	
SB Thru	F - 121	F - 121	F - 123	F - 123	SB Thru	F-601	F-601	F-613	F-613	
SB Right	F - 121	F - 121	F - 123	F - 123	SB Right	F-601	F-601	F-613	F-613	
Major St. (Ladera Dr.)	CHINES			e in the la	Major St. (Ladera Dr.)					
EB Left	A-9	A-9	A-9	A-9	EB Left	A-10	A-10	A-10	A - 10	
WB Left	B - 14	B-14	B-14	B - 14	WB Left	D - 26	D - 26	D-26	D-26	

The preceding table demonstrates that as the proposed full access on Unser Blvd. south of Ladera becomes more and more restricted, the northbound left turn movement delay

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increases exponentially. Anything less than full access on Unser Blvd. at proposed Driveway "D" will result in delay for the northbound left turn movement at Ladera Dr. / Market Rd. that is so high as to result in a error in value. Subsequent to determination of the access for Driveway "D" on Unser Blvd., Ladera Dr. / Market Rd. may need to be evaluated for warrants for a traffic signal.

Analysis on Intersection #9 (Ladera Dr. / Driveway "A")

The intersection of Ladera Dr. / Driveway "A". is currently an unsignalized full access intersection located approximately 440 feet east of Unser Blvd. (centerline to centerline). Ladera Dr. is classified as a Minor Arterial roadway on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. Under the new plan for the proposed Heritage Neighborhood Marketplace, Driveway "A" will be restricted to right-turn-in, right-turn-out only movements.

A summary of the delays at the intersection of Ladera Dr. / Driveway "A" associated with the 2010 and 2030 AM and PM Peak Hour BUILD conditions for each Case analyzed in this study are summarized in the following table:

Intersection No.

(Ladera Dr. / Driveway "A")

2010 AM Peak Hou	ır				2030 AM Peak Hour					
Minor St. (Driveway "A")	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Driveway "A")	Case "F"	Case "L"	Case "R"	Case "N"	
NB Left	N/A	N/A	N/A	N/A	NB Left	N/A	N/A	N/A	N/A	
NB Right	B - 10	B - 10	B-11	B - 12	NB Right	B - 11	B-11	B - 11	B - 12	
Major St. (Ladera Dr.)		1 2 3 3 S			Major St. (Ladera Dr.)					
WB Left	N/A	N/A	N/A	N/A	WB Left	N/A	N/A	N/A	N/A	

2010 PM Peak Hou	2030 PM Peak Hour								
Minor St. (Driveway "A")	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Driveway "A")	Case "F"	Case "L"	Case "R"	Case "N"
NB Left	N/A	N/A	N/A	N/A	NB Left	N/A	N/A	N/A	N/A
NR Right	B - 13	B - 14	B - 15	C - 17	NB Right	C - 18	C-18	C-19	C-24

NB Left	N/A	N/A	N/A	N/A	NB Left	N/A	N/A	N/A	N/A
NB Right	B - 13	B - 14	B - 15	C-17	NB Right	C-18	C - 18	C-19	C-24
Major St. (Ladera Dr.)		10000			Major St. (Ladera Dr.)			S 10 10	
WB Left	N/A	N/A	N/A	N/A	WB Left	N/A	N/A	N/A	N/A

The tables above demonstrate that the impact of the proposed access on Unser Blvd. south of Ladera Dr. has little impact on the intersection of Ladera Dr. / Driveway "A".

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Analysis on Intersection #10 (Driveway "B" / Market Rd.)

The intersection of Driveway "B" / Market Rd. does not currently exist. It will be constructed with the implementation of the proposed Heritage Neighborhood Marketplace. It is proposed to be a full access unsignalized driveway.

A summary of the delays at the intersection of Driveway "B" / Market Rd. associated with the 2010 and 2030 AM and PM Peak Hour BUILD conditions for each Case analyzed in this study are summarized in the following table:

Intersection No. #10 (Driveway "B" / Market Rd.)

2010 AM Peak Hou	<u>r</u>			2030 AM Peak Hour							
Minor St. (Driveway "B")	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Driveway "B")	Case "F"	Case "L"	Case "R"	Case "N"		
EB Left	B - 12	C - 16	C-16	C - 20	EB Left	B - 12	B - 15	C - 16	C - 18		
EB Right	B - 12	C - 16	C-16	C-20	EB Right	B - 12	B - 15	C - 16	C - 18		
Major St. (Market Rd.)	SEPTER				Major St. (Market Rd.)						
NB Left	A-1	A-1	A-1	A-1	NB Left	A-1	A-1	A-1	A-1		

2010 PM Peak Hou	2030 PM Peak Hour								
Minor St. (Driveway "B")	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Driveway "B")	Case "F"	Case "L"	Case "R"	Case "N"
EB Left	C-16	F - 123	F - 127	F-426	EB Left	C-16	F-123	F-127	F-366
EB Right	C-16	F - 123	F - 127	F-426	EB Right	C-16	F-123	F - 127	F - 366
Major St. (Market Rd.)	MANAGE AND	BO BOOK	(C. C. C	W. D. Talley	Major St. (Market Rd.)				MINISTER .
NB Left	A-1	A-1	A-1	A-1	NB Left	A-1	A-1	A-1	A-1

The preceding table demonstrates that as the proposed full access on Unser Blvd. south of Ladera becomes more and more restricted, the eastbound left turn movement delay increases significantly. Anything less than full access on Unser Blvd. at proposed Driveway "D" will result in delay for the eastbound left turn movement at Driveway "B" that is excessively high.

Analysis on Intersection #11 (Hanover Rd. / Driveway "C")

The intersection of Hanover Rd. / Driveway "C" does not currently exist. It will be constructed with the implementation of the proposed Heritage Neighborhood Marketplace. It is proposed to be a full access unsignalized driveway.

A summary of the delays at the intersection of Hanover Rd. / Driveway "C" associated with the 2010 and 2030 AM and PM Peak Hour BUILD conditions for each Case analyzed in this study are summarized in the following table:

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Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

Intersection No. #11 (Hanover Rd. / Driveway "C")

2010 AM Peak Hou	Г			2030 AM Peak Hour							
Minor St. (Driveway "C")	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Driveway "C")	Case "F"	Case "L"	Case "R"	Case "N"		
SB Left	A-9	A-9	A-9	A-9	SB Left	A-9	A-9	A-9	A-9		
SB Right	A-9	A-9	A-9	A-9	SB Right	A-9	A-9	A-9	A-9		
Major St. (Hanover Rd.)	NAME OF		Walter.	A RESIDE	Major St. (Hanover Rd.)						
EB Left	A-1	A-1	A-1	A-1	EB Left	A-1	A-1	A-1	A-1		

2010 PM Peak Hou	<u>r</u>			2030 PM Peak Hour							
Minor St. (Driveway "C")	Case "F"	Case "L"	Case "R"	Case "N"	Minor St. (Driveway "C")	Case "F"	Case "L"	Case "R"	Case "N"		
SB Left	A-9	A-9	A-9	A-9	SB Left	A-9	A-9	A-9	A-9		
SB Right	A-9	A-9	A-9	A-9	SB Right	A-9	A-9	A-9	A-9		
Major St. (Hanover Rd.)	ASPENDED TO	TA SEPA			Major St. (Hanover Rd.)	-					
EB Left	A-1	A-1	A-1	A-1	EB Left	A-1	A-1	A-1	A-1		

The preceding tables demonstrate that the impact of the degree of access on Unser Blvd. south of Ladera Dr. is negligible.

Analysis on Intersection #12 (Driveway "D" / Unser Blvd.)

The intersection of Driveway "D" / Unser Blvd. does not currently exist. It will be constructed with the implementation of the proposed Heritage Neighborhood Marketplace and the approval of the New Mexico Department of Transportation's Access Control Committee and the approval of the Mid-Region Council of Governments' Transportation Coordinating Committee. It is proposed to be a full access signalized driveway. However, the following summary of analysis will report delays and levels-of-service for other access scenarios as well (i.e., partial access and no access). The intersection of Driveway "D" / Unser Blvd. will be signalized only for Case "F" (full access).

A summary of the delays at the intersection of Driveway "D" associated with the 2010 and 2030 AM and PM Peak Hour BUILD conditions for each Case analyzed in this study are summarized in the following table:

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Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

Intersection No. #12 (Ladera Dr. / Driveway "A")

2010 AM Peak H	lour				2030 AM Peak Hour						
Driveway "A"	Case "F"	Case "L"	Case "R"	Case "N"	Driveway "A"	Case "F"	Case "L"	Case "R"	Case "N"		
WB Left	D-47.5	N/A	N/A	N/A	WB Left	D - 50.9	N/A	N/A	N/A		
WB Right	D-37.2	B - 11	B-11	N/A	WB Right	D - 41.7	B - 14	B - 14	N/A		
Unser Blvd.	No.		145 14		Unser Blvd.						
NB Thru	A - 8.5	N/A	N/A	N/A	NB Thru	A - 6.1	N/A	N/A	N/A		
NB Right	A - 5.9	N/A	N/A	N/A	NB Right	A - 1.5	N/A	N/A	N/A		
Unser Blvd.			THE STATE OF	S'ARTIN	Unser Blvd.				10000		
SB Left	A - 1.6	B - 13	N/A	N/A	SB Left	A - 5.5	C - 23	N/A	N/A		
SB Thru	A - 1.8	N/A	N/A	N/A	SB Thru	A - 2.4	N/A	N/A	N/A		
Intersection:	A - 6.7	N/A*	N/A*	N/A*		A - 5.4	N/A*	N/A*	N/A°		

2010 PM Peak H	lour				2030 PM Peak Hour							
Driveway "A"	Case "F"	Case "L"	Case "R"	Case "N"	Driveway "A"	Case "F"	Case "L"	Case "R"	Case "N			
WB Left	E-55.4	N/A	N/A	N/A	WB Left	D - 56.1	N/A	N/A	N/A			
WB Right	D - 38.8	D-32	D-32	N/A	WB Right	D-47.5	F - 293	F - 293	N/A			
Unser Blvd.	TA WE				Unser Blvd.				ALL S			
NB Thru	A-4.8	N/A	N/A	N/A	NB Thru	C - 25.5	N/A	N/A	N/A			
NB Right	A - 2.0	N/A	N/A	N/A	NB Right	A-8.3	N/A	N/A	N/A			
Unser Blvd.	- History	die stu			Unser Blvd.	Marie Marie Marie	THE PARTY NAMED IN		-			
SB Left	B - 17.4	F - 56	N/A	N/A	SB Left	D-32.2	F - 1,293	N/A	N/A			
SB Thru	A-4.3	N/A	N/A	N/A	SB Thru	A - 5.7	N/A	N/A	N/A			
Intersection:	B - 12.6	N/A°	N/A*	N/A*		C - 21.7	N/A*	N/A*	N/A*			

NOTE: Driveway "A" is signalized for Case "F" Only

Unser Case "F", the intersection of Driveway "D" / Unser Blvd. is a signalized intersection. The warrant analysis for the driveway (full access) was evaluated in the Traffic Impact Study for the project. The timing of the signal at Driveway "D" is designed to provide maximum delay for the side street and optimize the green time on Unser Blvd. The maximum delay for the side street is near 55 seconds (threshold of LOS "E").

Under Case "L" and Case "R", the intersection of Driveway "D" / Unser Blvd. is an unsignalized intersection.

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Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

Also of importance are the critical queue lengths associated with each case analyzed in this report. Following are the summarized calculated queuing lengths at the intersection of Ladera Dr. / Unser Blvd.:

Case "F" (2010)

Queueing Analysis Summary Sheet

Project:

Heritage Neighborhood Center

Intersection:

Ladera Dr / Unser Blvd

2010			en i de gre-sal de mandichalachalachae i de lander persone 19 artiste de la manuer ett d'Ade admeli, peur las peu gap p			ing a maning to all the desire.					No distribution to the delice manages	
Approach	1	.eft Tu	rns	7 [Thru	Move	ments	٦	Right Turns			
Eastbound	# Lane:	s Vol.	Length	11	# Lanes	s Vol.	Length	ĺ	# Lanes		Leng	
Existing Lane Length	1	175	250] [2	251	Cont	7	2	365	250	
AM NO BUILD Queue	1	199	250	7 [2	446	300	1	2	557	375	
AM BUILD Queue	1	199	250] [2	498	325	1	2	557	375	
Existing Lane Length	1	140	250	1 [2	182	Cont	7	2	138	250	
PM NO BUILD Queue	1	192	275	1 [2	319	250	1	2	322	250	
PM BUILD Queue	1	192	275		2	381	300		2	322	250	
Westbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	†	# Lanes	Vol.	Leng	
xisting Lane Length	2	317	250		2	105	Cont	1	0	44	0	
M NO BUILD Queue	2	542	350	1 1	2	186	150	1	0	123	175	
M BUILD Queue	2	686	425		2	196	175	1	0	140	200	
xisting Lane Length	2	281	250	-	2	264	Cont	1	0	107	0	
M NO BUILD Queue	2	594	425	-	2	480	350	ł	0	249	325	
M BUILD Queue	2	853	550	-	2	496	350	ł	0	279	375	
							000				3/3	
Northbound	# Lanes		Length	#	Lanes	Vol.	Length		# Lanes	Vol.	Leng	
xisting Lane Length	2	48	250		2	429	Cont	ļ	1	224	250	
M NO BUILD Queue	2	134	125		2	653	425		1	376	425	
M BUILD Queue	2	163	150		2	704	450		1	376	425	
xisting Lane Length	2	288	250	Γ	2	860	Cont		1	372	250	
M NO BUILD Queue	2	560	400		2	1,433	875		1	708	800	
M BUILD Queue	2	607	425		2	1,524	1,001	*	1	708	800	
Southbound	# Lanes	Vol.	Length	#	Lanes	Vol.	Length		# Lanes	Vol.	Leng	
kisting Lane Length	2	45	250		2	906	Cont		0	58	O	
I NO BUILD Queue	2	99	100		2	1,279	725		0	105	150	
A BUILD Queue	2	201	175	-	2	1.279	725		0	105	150	
risting Lane Length	2	94	250	-	2	547	Cont	- [0	184	0	
NO BUILD Queue	2	263	225	-		1,087	700		0	333	425	
A BUILD Queue	2	372	275	-		1,087	700	ļ	0	333		
				_	MAN .	1,007	700	Į	U	333	425	

AM PM Cycle Length: 110 120

NOTE: Queue lengths are in feet.

^{* -} Queue Length of 1,001 indicates that the calculated queue > 1

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Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

Case "F" (2030)

Queueing Analysis Summary Sheet

Project:

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Intersection:

Ladera Dr / Unser Blvd

2030							-		-	
Approach	1	eft Tu	rne	Thom	. 80	4	_			
Eastbound	# Lanes				Move				tht 7	
Existing Lane Length	# Lanes	175	Length	# Lanes		Length	1	# Lanes	1	Vol.
AM NO BUILD Queue	1	222	250	2	251	Cont	_	2	L	365
AM BUILD Queue	 		275	2	480	325		2	L	607
	-	222	275	2	494	325	_	2		647
Existing Lane Length PM NO BUILD Queue	1	140	250	2	182	Cont	_	2		138
	1	303	400	2	464	350	7	2		432
PM BUILD Queue	1	303	400	2	479	350		2		479
andri formation and a finish a finish a finish and a finish							1			
Westbound	# Lanes	Vol.	Length	# Lanes		Length		# Lanes	_ \	/ol.
Existing Lane Length AM NO BUILD Queue	2	317	250	2	105	Cont]	0		44
	2	972	575	2	329	250	7	0	1	83
AM BUILD Queue	2	972	575	2	339	250	1	0	2	00
Existing Lane Length	2	281	250	2	264	Cont	1	0	1	07
PM NO BUILD Queue	2	735	500	2	612	425	1	0	30	03
PM BUILD Queue	2	735	500	2	628	425	1	0	33	33
							1			
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vo	ıl.
xisting Lane Length	2	48	250	2	429	Cont	1	1	22	4
M NO BUILD Queue	2	178	150	2	1,046	625		1	58	打
M BUILD Queue	2	207	175	2	1,097	650		1	58	ī
xisting Lane Length	2	288	250	2	860	Cont	1	1	372	2
M NO BUILD Queue	2	799	525	2	2,146	1.001	*	1	1.01	7
M BUILD Queue	2	846	550	2	2,237	1,001	*	1	1,01	
All processing the party of the American Community of the American Com										
	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vo	ı.
xisting Lane Length	2	45	250	2	906	Cont		0	58	
M NO BUILD Queue	2	132	125	2	1,942	1,001	٠	0	148	3
M BUILD Queue	2	158	150	2	2,018	1,001	*	0	148	3
xisting Lane Length	2	94	250	2	547	Cont		0	184	!
M NO BUILD Queue M BUILD Queue	2 2	321	250	2	1,429	875	-	0	448	1
	7	348	275	2	1.511	1.001	* ľ	0	448	

AM PM Cycle Length: 110 120

NOTE: Queue lengths are in feet.

* - Queue Length of 1,001 indicates the calculated queue > 1,000

The dual northbound left turn lanes are recommended to be constructed to a length of 425 feet plus transition to accommodate the projected 2010 PM Peak Hour BUILD conditions and to a length of 55 feet plus transition to accommodate the 2030 PM Peak

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Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

Hour BUILD Conditions. Also, the calculated right turn queues at this intersection can be reduced by 50% to account for right-turns-on-red and overlap phases.

Following are the summarized calculated queuing lengths at the proposed intersection of Driveway "D" / Unser Blvd.:

Case "F" (2010)

Queueing Analysis Summary Sheet

Project: Intersection: Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Driveway 'D' / Unser Blvd

2010												
Approach	L	eft Tu	rns	7	Thru	Move	ements]	Right Turns			
Eastbound	# Lanes	Vol.	Length	L	# Lanes	Vol.	Length		# Lanes		Leng	
Existing Lane Length	0	0	0]	0	0	Cont	1	0	0	0	
AM NO BUILD Queue	0	0	0	1	0	0	0	1	0	0	0	
AM BUILD Queue	0	0	0]	0	0	0		0	0	0	
Existing Lane Length	0	0	0	1	0	0	Cont		0	0	0	
PM NO BUILD Queue	0	0	0	1	0	0	0		0	0	0	
PM BUILD Queue	0	0	0		0	0	0		0	0	0	
Westbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length	-	# Lanes	Vol.	1	
Existing Lane Length	2	0	TBD	ı	0	0	Cont		# Laries	0	Leng	
AM NO BUILD Queue	2	0	0		0	0	0		1	0	100	
AM BUILD Queue	2	144	125		0	0	0		1	80	125	
Existing Lane Length	2	0	TBD		0	0	Cont		1	00		
M NO BUILD Queue	2	0	0		0	0	0		1-1-	$\frac{v}{0}$	TBL	
PM BUILD Queue	2	340	275			0	0		1		0	
							-			295	375	
Northbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Voi.	Lengt	
xisting Lane Length	0	0	0		3	701	Cont		1	0	300	
M NO BUILD Queue	0	0	0		3	797	375		1	0	0	
M BUILD Queue	0	0	0		3	797	375		1	216	275	
xisting Lane Length	0	0	0		3	1,520	Cont		1	0	300	
M NO BUILD Queue	0	0	0		3	1,709	750		1	0	0	
M BUILD Queue	0	0	0		3	1,613	700		1	327	425	
Southbound	# Lanes	Vol.	Length		# Lanes	Vol.	Longth	-	44.0			
xisting Lane Length	1	0	TBD		3	1.588	Length		# Lanes	Vol.	Lengt	
M NO BUILD Queue	1	0	0	ļ		1,806	Cont	Į	0	0	0	
M BUILD Queue	1	116	175	-		1,806	725	ļ	0	0	0	
xisting Lane Length	1	0	TBD		3		725	ļ		0	0	
M NO BUILD Queue	1	0	0			966	Cont	ļ	0	0	0	
VI BUILD Queue	1	204	275	ı		1,086	500	-	0	0	0	
ii boilb queue		204	2/5		3	1,011	475	L	0	0	0	

AM PM Cycle Length: 110 120

NOTE: Queue lengths are in feet.

* - Queue Length of 1,001 indicates the calculated queue > 1,000

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Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

Case "F" (2030)

Queueing Analysis Summary Sheet

Project:

Heritage Neighborhood Center (Ladera Dr / Unser Blvd)

Intersection: Driveway 'D' / Unser Blvd

2030											
		61 -		7				_			
Approach	_	eft Tu	rns	ı	Thru	Move	ments		Right Turns		
Eastbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	0	0	0]	0	0	Cont	7	0	0	0
AM NO BUILD Queue	0	0	0	7	0	0	0	٦	0	0	0
AM BUILD Queue	0	0	0	1	0	0	0	1	0	0	0
Existing Lane Length	0	0	0	7	0	0	Cont	1	0	0	0
PM NO BUILD Queue	0	0	0	1	0	0	0	1	0	0	0
PM BUILD Queue	0	0	0]	0	0	0	1	0	0	0
				<u> </u>				1_			
Westbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	2	0	TBD		0	0	Cont	1	1	0	TBD
AM NO BUILD Queue	2	0	0		0	0	0	7	1	0	0
AM BUILD Queue	2	144	125		0	0	0	1	1	80	125
Existing Lane Length	2	0	TBD		0	0	Cont	1	1	0	TBD
PM NO BUILD Queue	2	0	0		0	0	0	1	1	0	0
PM BUILD Queue	2	340	275		0	0	0	1	1	295	375
				L				<u> </u>			
Northbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	0	0	0		3	701	Cont	1	1	0	300
AM NO BUILD Queue	0	0	0		3	1,439	600		1	0	0
AM BUILD Queue	0	0	0		3	1,439	600		1	216	275
Existing Lane Length	0	0	0		3	1,520	Cont		1	0	300
PM NO BUILD Queue	0	0	0			2,971	1,001	*	1	0	0
PM BUILD Queue	0	0	0		3	2,875	1,001	*	1	327	425
Southbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	1	0	TBD		3	1,588	Cont		0	0	0
AM NO BUILD Queue	1	0	0			3,261	1,001	*	0	0	0
AM BUILD Queue	1	116	175			3,261	1,001	*	0	0	0
Existing Lane Length	1	0	TBD		3	966	Cont		0	0	0
PM NO BUILD Queue	1	0	0			1,888	800		0	0	0
PM BUILD Queue	1	204	275		3	1,813	775	ľ	0	0	0

Cycle Length: AM PM 120

NOTE: Queue lengths are in feet.

* - Queue Length of 1,001 indicates the calculated queue > 1,000

The southbound left turn lane on Unser Blvd. at Driveway "D" should be designed and constructed to a minimum length of 275 feet plus transition to contain the queues calculated for this project.

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Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

All of the preceding analyses assume construction of improvements to Ladera Dr. / Unser Blvd. as recommended in the Traffic Impact Study as summarized below:

Ladera Dr. / Unser Blvd. – Construct the intersection of Ladera Dr. / Unser Blvd. with the minimum geometry outlined in the following table:

Mitigated Geometry (Ladera Dr. / Unser Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Ladera Dr.	1	0	2	0	2
WB Ladera Dr.	2	0	1	1	0
NB Unser Blvd.	2	0	2	0	1
SB Unser Blvd.	2	0	2	0	1

The auxiliary lanes at the intersection should be designed and constructed to the length recommended in the Traffic Impact Study for the project as approved by the City of Albuquerque and the New Mexico Department of Transportation.

With the improvements recommended in the Traffic Impact Study and with the new full access on the east side of Unser Blvd. between Ladera Dr. and I-40, the adjacent transportation system will operate satisfactorily. There is a significant benefit to permitting the full access signalized driveway on Unser Blvd. characterized by a reduction in delays and queue lengths at the intersections of Ladera Dr. / Unser Blvd. and Driveway "B" / Market Rd.

Also, time-space diagrams were developed for the 2010 AM and PM Peak Hour BUILD conditions for Case "F" (signalized Driveway "D"). The predominant flow of traffic during the AM Peak Hour period on Unser is markedly southbound while the predominant flow of traffic during the PM Peak Hour period is markedly northbound. Upon optimization of the traffic signal system on Unser Blvd. associated with this project, the time-space diagram revealed that the green band southbound during the AM Peak Hour was unaffected by the new signal at Driveway "D" and the green band northbound during the PM Peak Hour was unaffected by the new signal at Driveway "D".

In summary there is a significant operational benefit to the adjacent transportation system by virtue of the analysis which demonstrates a reduction in delays at the intersections of Ladera Dr. / Unser Blvd. and at Ladera Dr. / Market Rd. Additionally, it was demonstrated that the installation of a traffic signal at the proposed new driveway on Unser Blvd. approximately 950 feet south of Ladera Dr. would not negatively impact the southbound AM Peak Hour predominant flow of traffic nor the northbound PM Peak Hour predominant flow of traffic on Unser Blvd.

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Terry & Bran

Re: Heritage Neighborhood Marketplace Development - Access to Unser Blvd.

Therefore, on behalf of the client, I hereby request consideration and approval of the new full access signalized driveway along the east side of Unser Blvd. approximately 950 feet south of Ladera Dr. as described herein. This would constitute a relocation of the existing access control break at Hanover Rd. approximately 300 feet to the north.

Please call me if you have questions or if you need additional information.

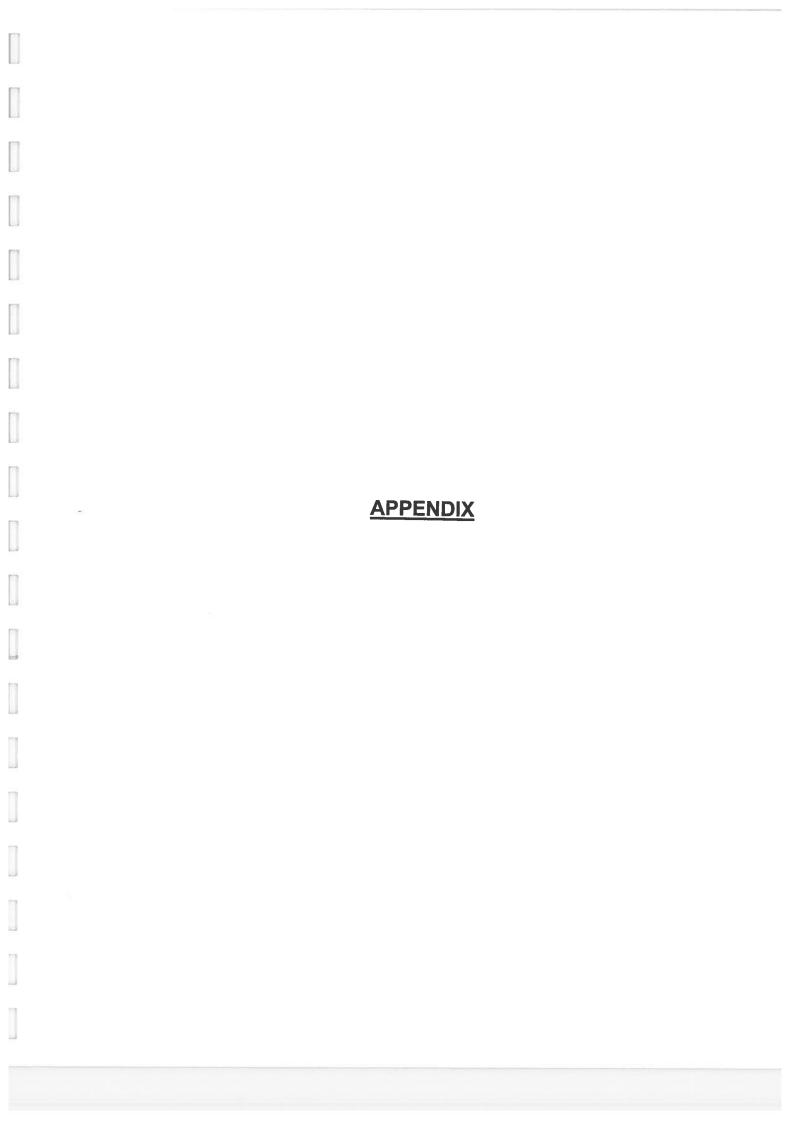
Sincerely Yours,

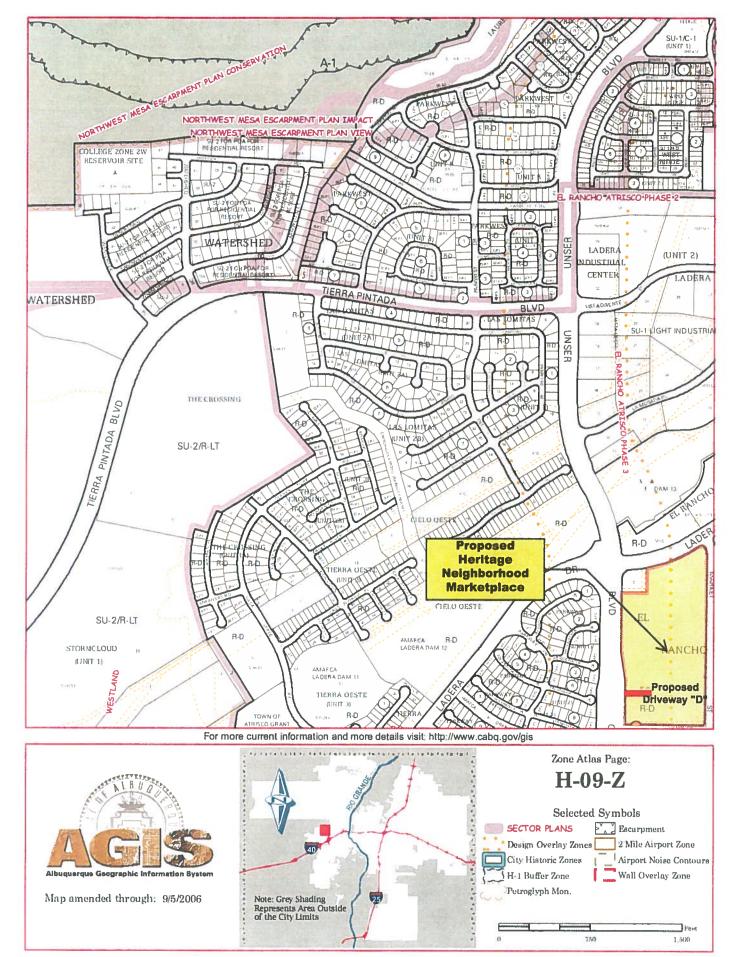
Terry O./Brown

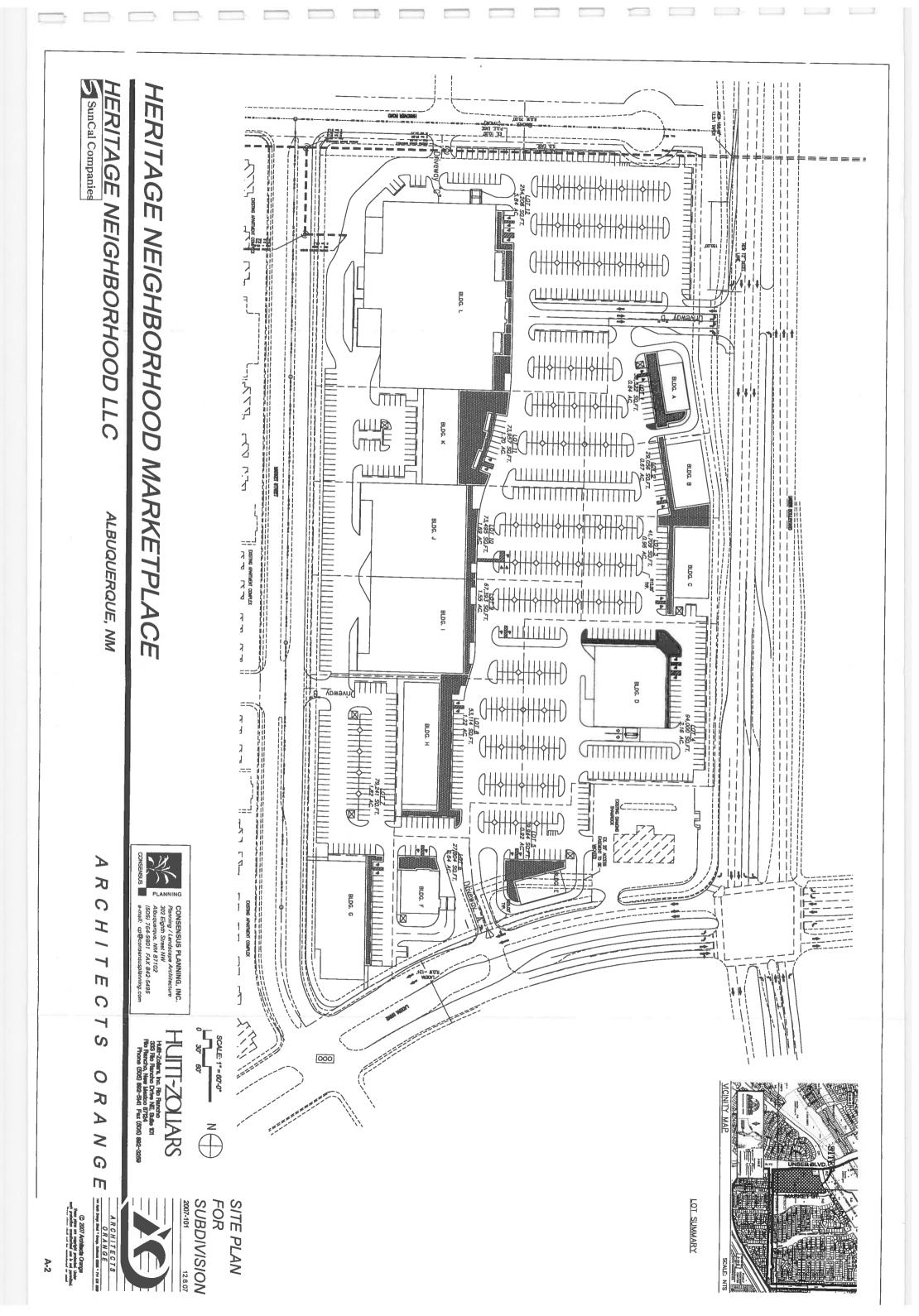
attachments as noted

APPENDIX

Vicinity Map	A-1
Proposed Project Site Development Plan	A-2
Trip Assignments (Commercial - % Entering) - Case "F" and "L"	A-3
Trip Assignments (Commercial - % Entering) - Case "R"	A-4
Trip Assignments (Commercial - % Entering) - Case "N"	A-5
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Trip Assignments (Commercial - % Exiting) - Case "L" and "R"	A-7
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Trip Assignments (Office - % Entering) - Case "F" and "L"	A-9a
Trip Assignments (Office - % Entering) - Case "R"	A-9b
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Pass-by Trips Diagrams	A-13 thru A-16
Analysis of 2010 BUILD Conditions - Case "F"	A-17 thru A-43
Time-Space Diagrams for 2010 BUILD Conditions - Case "F"	A-44 thru A-47
Analysis of 2010 BUILD Conditions - Case "L"	A-48 thru A-74
Analysis of 2010 BUILD Conditions - Case "R"	A-75 thru A-101
Analysis of 2010 BUILD Conditions - Case "N"	A-102 thru A-121
Analysis of 2030 BUILD Conditions - Case "F"	
Analysis of 2030 BUILD Conditions - Case "L"	
Analysis of 2030 BUILD Conditions - Case "R"	
Analysis of 2030 BUILD Conditions - Case "N"	
Analysis of 2030 BUILD Conditions - Case "F" Analysis of 2030 BUILD Conditions - Case "L" Analysis of 2030 BUILD Conditions - Case "R" Analysis of 2030 BUILD Conditions - Case "N"	A-122 thru A-148 A-149 thru A-175 A-176 thru A-202 A-203 thru A-222



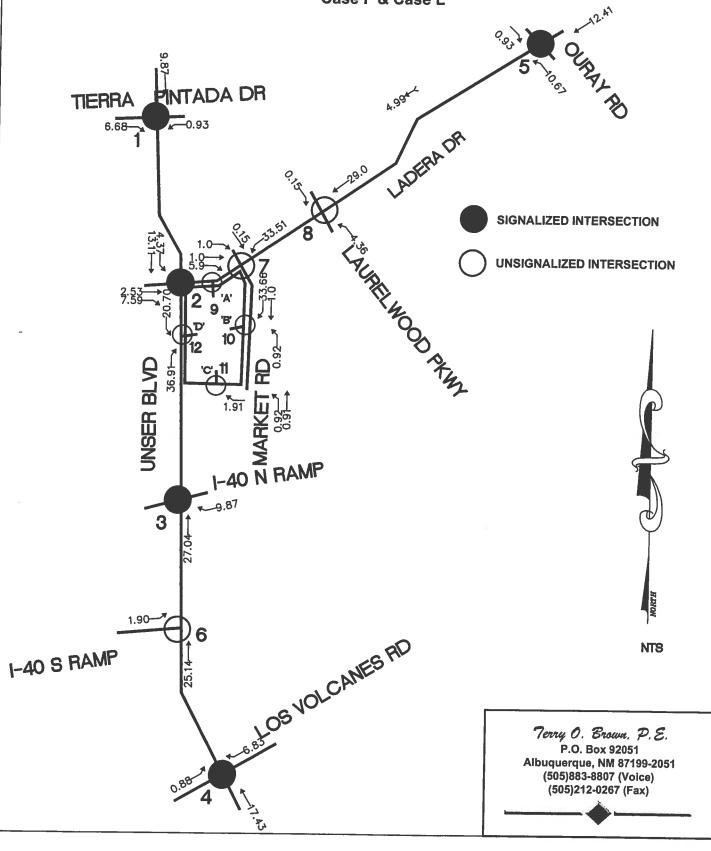




(Ladera Dr / Unser Blvd)

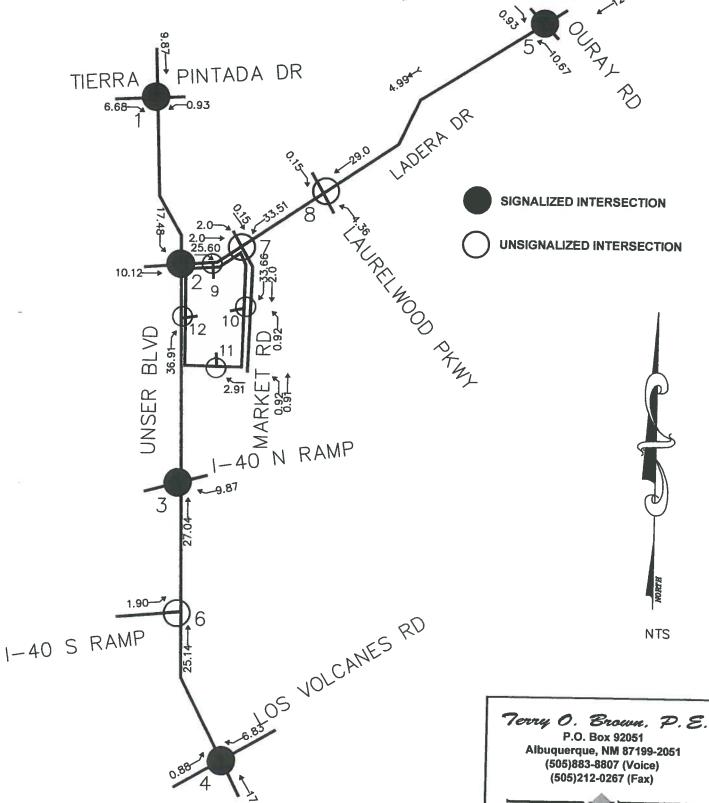
Trip Assignments - Commercial (% Entering)

Case F & Case L



(Ladera Dr / Unser Blvd)

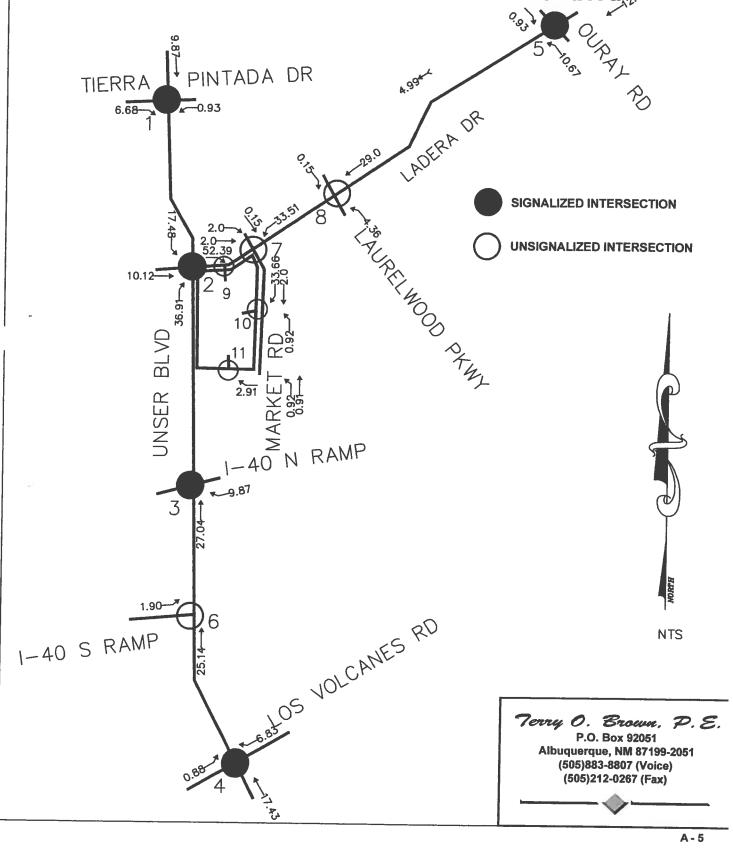
Trip Assignments - Commercial (% Entering)
Case R- RI, RO only on Unser Blvd



A-4

(Ladera Dr / Unser Blvd)

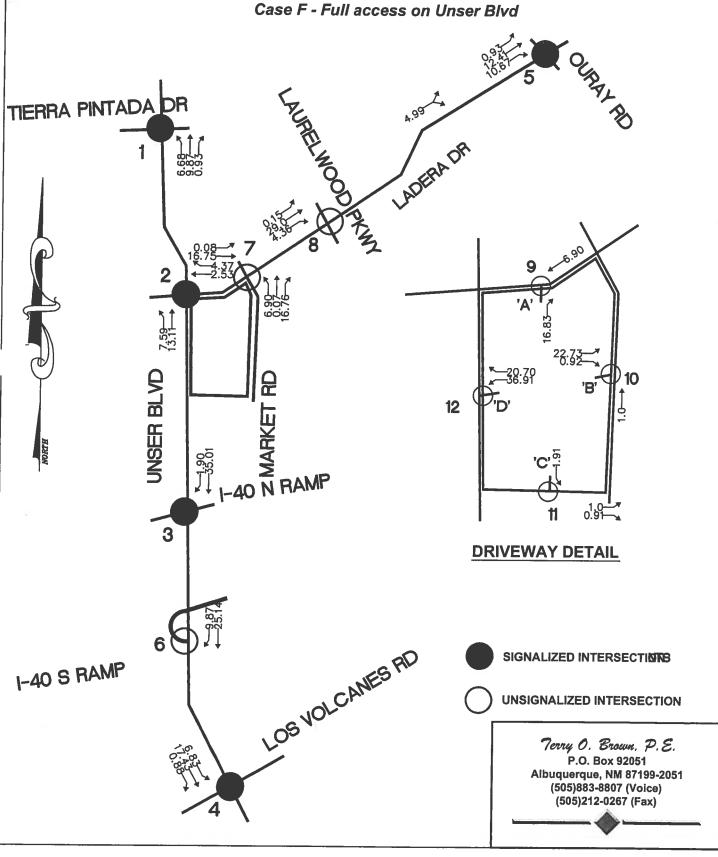
Trip Assignments - Commercial (% Entering)
Case N - No intersection on Unser Blvd, A



(Ladera Dr / Unser Blvd)

Trip Assignments - Commercial (% Exiting)

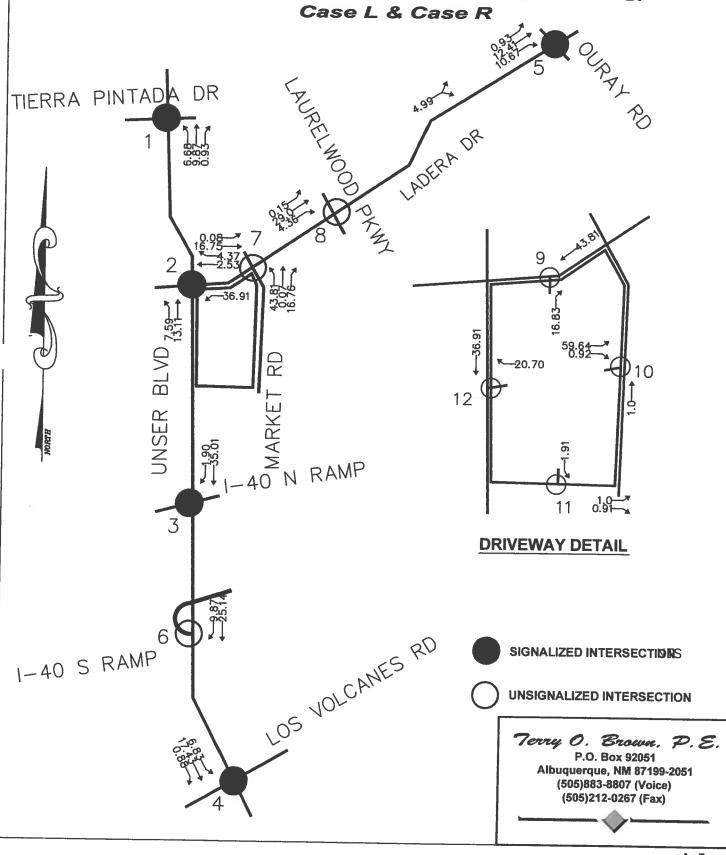
Case F - Full access on Unser Blvd



(Ladera Dr / Unser Blvd)

Trip Assignments - Commercial (% Exiting)

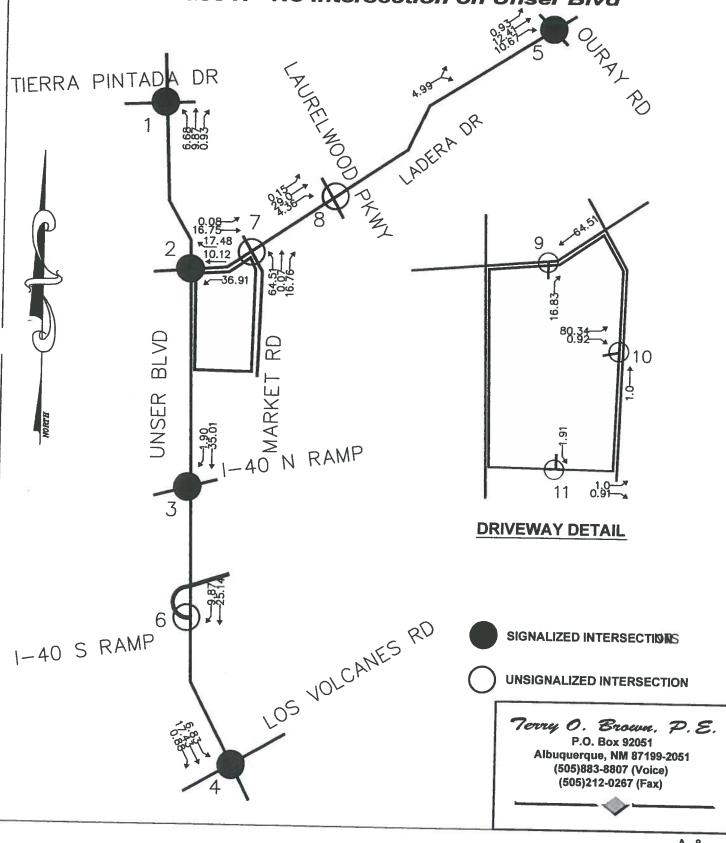
Case L & Case R



(Ladera Dr / Unser Blvd)

Trip Assignments - Commercial (% Exiting)

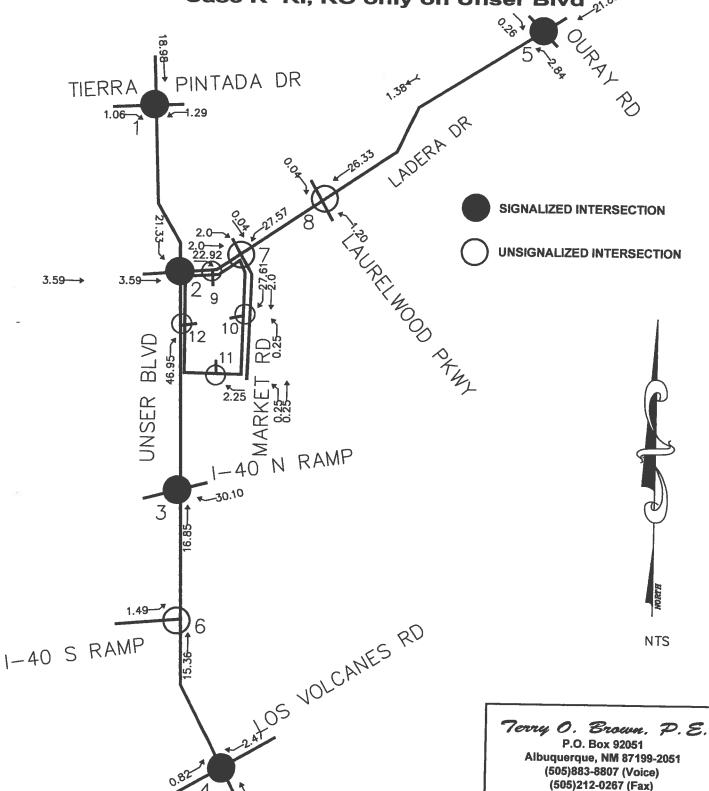
Case N - No Intersection on Unser Blvd



Heritage Neighborhood Center (Ladera Dr / Unser Blvd) **Trip Assignments - Office (% Entering)** Case F & Case L 21.85 INTADA DR 1.38 TIERRA . -1.29 SIGNALIZED INTERSECTION CAUREL MOD TAN **UNSIGNALIZED INTERSECTION** UNSER BLVD 1.25 1-40 N RAMP 30.10 3 LOS VOL CAMES RO **NTS** 1-40 S RAMP Terry O. Brown, P.E. P.O. Box 92051 Albuquerque, NM 87199-2051 (505)883-8807 (Voice)

3.59-

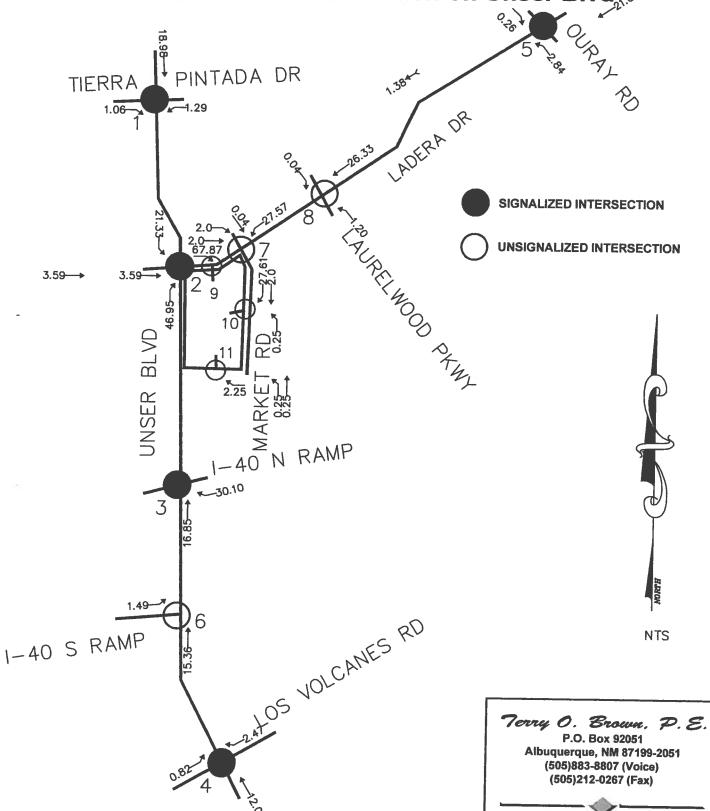
(505)212-0267 (Fax)



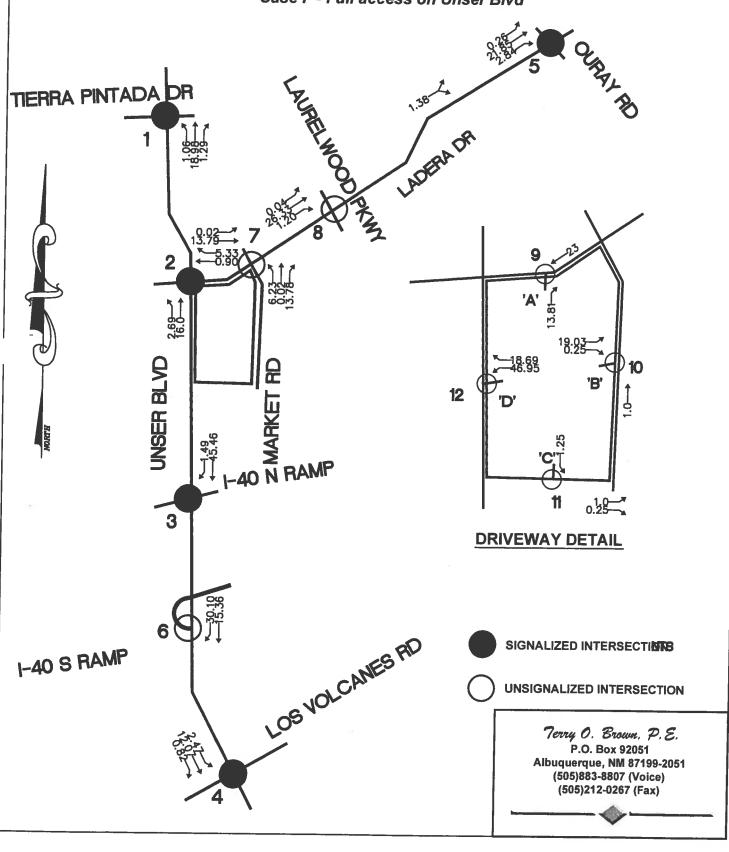
A-9b

(Ladera Dr / Unser Blvd)

Trip Assignments - Office (% Entering)
Case N - No intersection on Unser Blvd



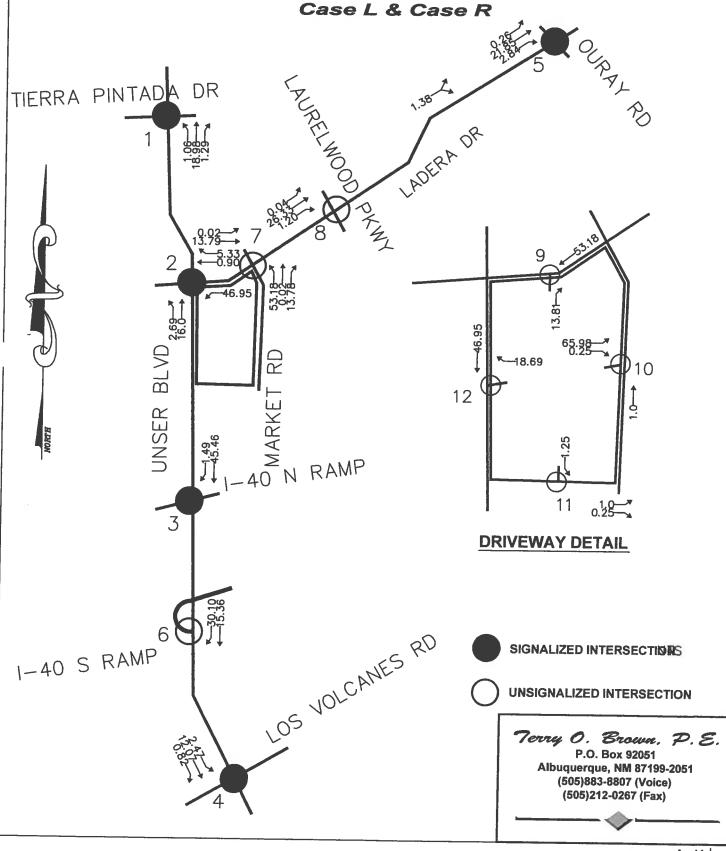
(Ladera Dr / Unser Blvd)
Trip Assignments - Office (% Exiting)
Case F - Full access on Unser Blvd



(Ladera Dr / Unser Blvd)

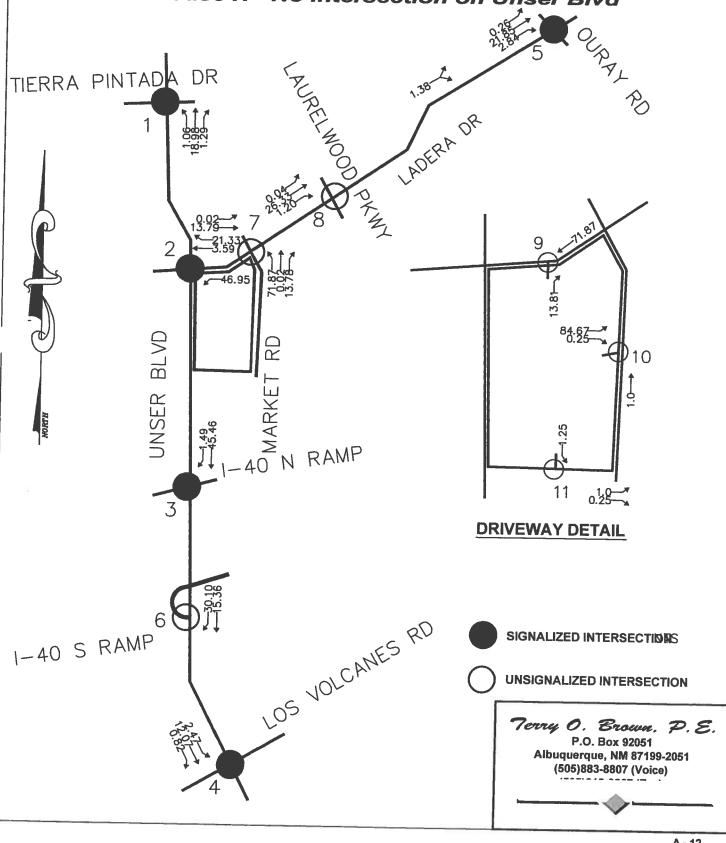
Trip Assignments - Office (% Exiting)

Case L & Case R



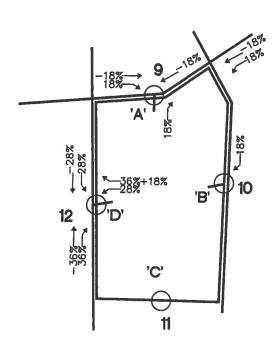
(Ladera Dr / Unser Blvd)

Trip Assignments - Office (% Exiting) Case N - No Intersection on Unser Blvd



(Ladera Dr / Unser Blvd)
Passby Trips
Case F - Full access on Unser Blvd





DRIVEWAY DETAIL

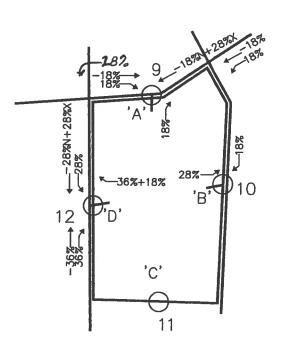


UNSIGNALIZED INTERSECTION

7erry O. Brown, P. E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

(Ladera Dr / Unser Blvd)
Passby Trips
Case L - RI, RO, LI only on Unser Blvd





DRIVEWAY DETAIL



SIGNALIZED INTERSECTIONS



UNSIGNALIZED INTERSECTION

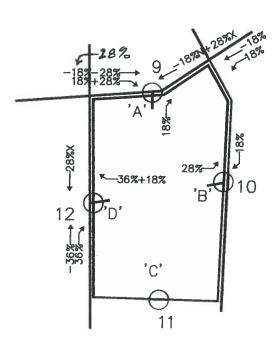
7*erry O. Brown, P. E.*P.O. Box 92051
Albuquerque, NM 87199-2051

Albuquerque, NM 87199-205[,] (505)883-8807 (Voice) (505)212-0267 (Fax)



(Ladera Dr / Unser Blvd)
Passby Trips
Case R- Ri, RO only on Unser Blvd





DRIVEWAY DETAIL



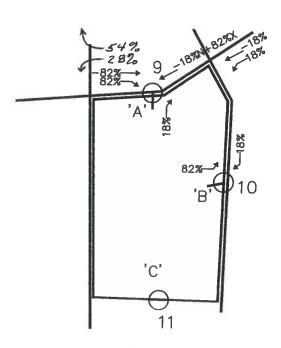


7erry O. Brown. P. S. P.O. Box 92051 Albuquerque, NM 87199-2051 (505)883-8807 (Voice) (505)212-0267 (Fax)

(Ladera Dr / Unser Blvd)

Passby Trips
Case N - No intersection on Unser Blvd





DRIVEWAY DETAIL



SIGNALIZED INTERSECTIONS



UNSIGNALIZED INTERSECTION

7erry O. Brown, P. E.
P.O. Box 92051
Albuquerque, NM 87199-2051

Albuquerque, NM 87199-208 (505)883-8807 (Voice) (505)212-0267 (Fax)

Analysis of 2010 BUILD Conditions

CASE "F"
(Full Access Driveway on Unser Blvd.)

Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2010) - 100% Development

Case F - full access at Intersection 12

INTERSECTION:

Summary

0.88

Ladera	Dr / Unser Blvd
(2)	
\- /	3.0% Truck
	0.070 TTGCK

3.0% Truck
Existing (2007)
2010 (NO BUILD - A.M.)
2010 (BUILD - A.M.)

Existing (2007)
2010 (NO BUILD - P.M.)
2010 (BUILD - P.M.)

		0.87			0.79			0.85		0.89 Pi		
Eastbound (Ladera Dr)				Westbound (Ladera Dr)			Northbound (Unser Blvd)			Southbound (Unser Blyd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	175	251	365	317	105	44	48	429	224	45	906	58
	199	446	557	542	186	123	134	653	376	99	1,279	105
	199	460	597	542	196	140	163	704	376	125	1.355	105
		0.93			0.93			0.95	070	120	0.06	100

PHF	0.96 P		0.95			0.93				0.83				
Blvd)	Southbound (Unser Blvd)			Northbound (Unser Blvd)			Westbound (Ladera Dr)			Eastbound (Ladera Dr)				
Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left			
184	547	94	372	860	288	107	264	281	138	182	140			
333	1,087	263	708	1,433	560	249	480	594	322	319	192			
333	1,169	290	708	1,524	607	279	496	594	369	334	192			

Ladera Dr / Market Rd

3.0% Truck
Existing (2007)

2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007)
2010 (NO BUILD - P.M.)
2010 (BUILD - P.M.)

	0.00			0.79			0.86			0.85	PHF
Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Market Rd)			Southbound (Market Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	425	28	14	365	. 0	113	0	72	0	0	
0	425	28	15	398	0	113	0	72	0	0	0
0	489	34	201	398	0	140	0	136	0	4	
						140		100		- 1	

		0.33		Westbound (Ladera Dr)				0.88			0.85	
		ound (Lade	ra Dr)				North	Northbound (Market Rd)			Southbound (Market Rd)	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	513	156	48	463	0	83	0	36	0	0	0
ĺ	0	559	170	52	505	0	83	0	36	0	0	0
	0	669	176	260	505	0	129	0	146	0	1	0

Ladera Dr / Driveway 'A'

(9)

3.0% Truck
Existing (2007)
2010 (NO BUILD - A.M.)
2010 (BUILD - A.M.)

Existing (2007)
2010 (NO BUILD - P.M.)
2010 (BUILD - P.M.)

	0.79			0.79			0.85			0.85	PHF	
Eastb	ound (Lader	ra Dr)	Westbound (Ladera Dr)			Northbo	Northbound (Driveway 'A')			Southbound (Driveway 'A')		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	520	0	0	466	0	0	0	0	0	n l		
0	520	0	0	466	0	0	0	0	0	0	- 0	
0	526	33	0	493	0	0	0	65	0	0		
	0.93			0.03				00		U		

		0.93			0,93			0.85			0.85 PH		
	Eastbound (Ladera Dr)			Westi	Westbound (Ladera Dr)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<u> </u>	0	648	0	0	652	0	0	0	0	0	0	0	
L	0	706	0	0	711	0	0	0	0	0	0	0	
L	0	664	85	0	709	0	0	0	163	0	0	0	

Driveway 'B' / Market Rd

(10)

3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007)
2010 (NO BUILD - P.M.)
2010 (BUILD - P.M.)

,		0.85			0.85 Westbound (Driveway 'B')			0.86			0.86	PHF
Į.	Eastbo	und (Drivey	ray 'B')	Westbo				Northbound (Market Rd)			Southbound (Market Rd)	
L	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	185	0	O.	42	
l	0	0	0	0	0	0	0	185	0	0	42	0
Γ	88	0	3	0	0	0	5	189	0	0	AR	187
_		0.85			0.85			0.88			0.88	DUE

	Take the second						0.88			0.88	PHF
Eastbo				ound (Driver	way 'B')	North	bound (Marl	(et Rd)	Southbound (Market Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	119	0	0	204	0
0	0	0	0	0	0	0	119	0	0	204	0
150	0	5	0	0	0	6	126	0	0	210	257

Projected Turning Movements Worksheet Ladera Dr / Unser Blvd

INTERSECTION:

E-W Street Ladera Dr N-S Street: Unser Blvd 2007

(2)

Year of Existing Counts Implementation Year

Growth Rates		0.68%			6.77%			4.58%		3.68%		
	Easth	ound (Lude	ra Dr)	West	bound (Lade	ra Dr)	North	bound (Unse		Southbound (Urreer Blvd)		
	Left	Thru	Right	Loft	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	175	251	365	317	105	44	48	429	224	45	906	58
Background Traffic Growth	4	5	7	64	21	9	7	59	31	- 5	100	- 30
Subtotal	179	256	372		128	53	55	488	255	Y		- 9
I-40 / Unser Development			- Apple to			33				50	1,006	64
	U	0	43	161	0	0	32	32	121	0	42	0
Ladera Business Park	0	0	0	0	0	3	0	28	0	5	47	0
Previous Development from below	20	190	142	Q	60	67	47	105	0	44	184	41
Subtotal (NO BUILD - A.M.)	199	448	557	542	186	123	134	653	376	99	1,279	105
Percent Commercial Trips Generated(Entering)	0.00%	2.53%	7.59%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.37%	13.11%	0.00%
Percent Commercial Trips Generated (Exiting)	0.00%	0.00%	0.00%	0.00%	2.53%	4.37%	7.59%	13.11%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.90%	2.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.33%	18.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.90%	5.33%	2.69%	16.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	14	40	0	10	17	29	51	0	26	76	0.0076
Total AM Peak Hour BUILD Volumes	199	480	597	542	196	140	163	704	376	125	1,355	105

Existing Volumes **Background Traffic Growth** Subtotal I-40 / Unser Development Ladera Business Park Previous Development from below Subtotal (NO BUILD - P.M.) Percent Office Trips Generated(Entering)
Percent Office Trips Generated(Entering)
Percent Office Trips Generated(Entering)
Percent Office Trips Generated(Entering) **Total Trips Generated**

-		3.98%			2.50%			4,15%		3.12%			
L		ound (Lade	ra Dr)	West	bound (Lade	era Dr)	North	ound (Unse	r Blvd)	South	bound (Une	er Blvel)	
_	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	140	182	138	281	264	107	288	860	372	94	547	184	
L_	17	<u>22</u>	16	21	20	8	36	107	46	9	51	17	
	157	204	154	302	284	115	324	967	418	103	598	201	
	0	0	78	292	0	0	77	77	290	0	77	201	
	0	0	0	0	0	14	0	123	0	23	204		
	35	115	90	0	196	120	159	266	0	137	208	132	
	192	319	322	594	480	249	580	1,433	708	263	1.087	333	
. (0.00%	2.53%	7.59%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.37%	13,11%	0.00%	
(0.00%	0.00%	0.00%	0.00%	2.53%	4.37%	7.59%	13.11%	0.00%	0.00%	0.00%	0.00%	
- 6	0.00%	8.90%	2.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.33%	16.00%	0.00%	
(2.00%	0.00%	0.00%	0.00%	0.90%	5,33%	2.69%	16.00%	0.00%	0.00%	0.00%	0.00%	
	0	15	47	0	16	30	47	91	0.0078	27	82	0.0079	
_	192	334	369	594	496	279	807	1,524	708	290	1,169	333	

Number of Commercial Trips Generated

Exiting 378 580

100% Commercial Development

Number of Office Trips Generated

499 602 A.M. P.M. A.M. P.M.

100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Subtotal

Subtotal

Total PM Peak Hour BUILD Volume

	nd (Ledera I		Westbou	ind (Ladera	Dr)	Northbou	nd (Unser B	lvd)	Southbou	nd (Unser	Blvd)
175	251	365	317	105	44	48	429	224	45	906	5
140	182	138	281	264	107	288	860	372	94	547	18

Previous Developments - AM Peak Hour Volumes

Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development

Southbound (Unser Blvd)			ound (Unse	Northb	ra Dr)	ound (Lade	West		Emstround (Laders Dr)	
Thru i	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left
17	0	0	6	0	0	24	0	0	78	0
131	0	0	44	47	0	36	0	142	112	0
	44	0	55	Q	67	0	Q	0	Q	20
	44	0	105	47	67	60	0	142	190	20
	17 131 38	0 17 0 131 44 36	Right Left Thru 0 0 17 0 0 131 0 44 38	Thru Right Left Thru 6 0 0 17 44 0 0 131 55 0 44 36	Left Thru Right Left Thru 0 6 0 0 17 47 44 0 0 131 Ω 55 Q 44 38	Right Left Thru Right Left Thru 0 0 6 0 0 17 0 47 44 0 0 131 67 0 55 0 44 36	Thru Right Left Thru Right Left Thru 24 0 0 6 0 0 17 38 0 47 44 0 0 131 Q 6Z 0 55 Q 44 36	Left Thru Right Left Thru Right Left Thru 0 24 0 0 6 0 0 17 0 38 0 47 44 0 0 131 0 9 87 0 55 0 44 38	Right Left Thru Right Left Thru Right Left Thru 0 0 24 0 0 6 0 0 17 142 0 36 0 47 44 0 0 131 0 0 0 57 0 55 0 44 38	Thru Right Left Thru Right Left Thru Right Left Thru Right Left Thru 78 0 0 24 0 0 6 0 0 17 112 142 0 38 0 47 44 0 0 131 9 9 9 9 87 9 55 9 44 38

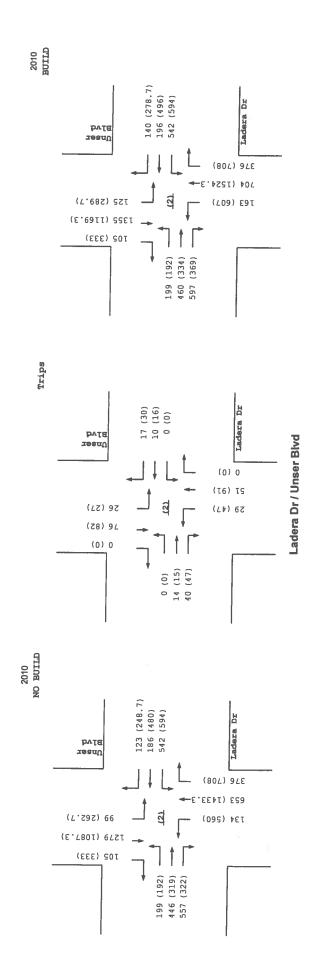
Previous Developments - PM Peak Hour Volumes

Watershed Residential & Retail
Storm Cloud Dev. w/ others
98th / Unser Development

Ī		ound (Lade		West	Westbound (Laders Dr)			ound (Unse	r Blvd)	Southbound (Linser Blvd)		
1	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
١	0	44	0	0	78	0	0	19	0	0	12	0
	0	71	90	0	118	0	159	149	0	0	83	91
	<u>35</u>	Q	0	0	0	120	0	98	0	137	113	41
	35	115	90	0	196	120	159	266	0	137	208	132

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	791	466	701	1.009
2007 PM Link Volume	460	652	1,520	
Based on MRCOG Model (2030 Data Set)		402	1,520	825
2005 AM Link Volume	299	355	530	4800
2005 PM Link Volume	270			1526
	210	261	2018	1163
2030 AM Link Volume	914	1192	1440	1000
2030 PM Link Volume	581	1027		1859
The state of the s	001	1027	2970	1417
Growth Rate to Apply to Existing Counts to Match 2	130 Forecasts			
2007-2030 AM Growth Rates	0.68%	8,77%	4.58%	0.000
2007-2030 PM Growth Rates	3.98%			3.88%
	3.80%	2.50%	4.15%	3,12%
Growth Rate to Apply to 2005 Model Volumes to Ma	tch 2025 Forecasts			
2005-2030 AM Growth Rates	8.23%	9.43%	6 87%	
2005-2030 PM Growth Rates	9.05%			0.87%
	8.0376	11.74%	1.89%	0.87%



Projected Turning Movements Worksheet

3.00%

Ladera Dr / Market Rd

INTERSECTION:

E-W Street: Ladera Dr N-S Street:

(7)

Year of Existing Counts

Implementation Year

2007

Market Rd

0.00%

2010

Growth Rates

0.00% Eastbound (Ladera Dr) Westbound (Ladera Dr) Northbound (Market Rd) Southbound (Market Rd) Right Left Thru Right Left Thru Left Thru Right Thru | Right Left **Existing Volumes** 28 365 113 72 0 Background Traffic Growth 0 33 0 0 0 0 0 Subtotal (NO BUILD - A.M.) 0 425 28 15 398 0 113 0 72 0 0 Percent Commercial Trips Generated(Entering) 0.00% 0.00% 1.00% 33.51% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.15% 0.00% Percent Commercial Trips Generated(Exiting) 0.08% 16.75% 0.00% 0.00% 0.00% 0.00% 6.90% 0.07% 16.76% 0.00% 0.00% 0.00% Percent Office Trips Generated(Entering) 0.00% 0.00% 27.57% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.04% 0.00% Percent Office Trips Generated(Exiting) 0.02% 13.79% 0.00% 0.00% 6.23% 0.02% 13.78% 0.00% 0.00% 0.00% Total Trips Generated 186 0 64 0 **Total AM Peak Hour BUILD Volumes** 0 489 34 201 398 0 140 0 136

Existing Volumes Background Traffic Growth Subtotal (NQ BUILD - P.M.) Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)
Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated Total PM Peak Hour BUILD Volumes

_		3.00%			3.00%			0.00%		0.00%			
		ound (Lade	ra Dr)	West	bound (Lade	era Dr)	North	bound (Mari	(et Rd)	Southbound (Market Rd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
L	0	513	156	48	463	0	83	0	36	0	0	0	
	<u>0</u>	<u>46</u>	<u>14</u>	4	42	0	Q	0	0	0	0	0	
L	0	559	170	52	505	0	83	0	36	0	0	0	
L	0.00%	0.00%	1.00%	33.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.00%	
L	0.08%	16.75%	0.00%	0.00%	0.00%	0.00%	6.90%	0.07%	16.76%	0.00%	0.00%	0.00%	
L	0.00%	0.00%	1.00%	27.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%	
\perp	0.02%	13.79%	0.00%	0.00%	0.00%	0.00%	6.23%	0.02%	13.78%	0.00%	0.00%	0.00%	
	0	110	6	208	0	0	46	0	110	0	1	0	
L	0	669	176	260	505	0	129	0	146	0	1	0	

0

Number of Commercial Trips Generated Number of Office Trips Generated

Entering Exiting 499 378 A.M. P.M. 602 580 68 9 A.M. 20 96 P.M.

100% Commercial Development

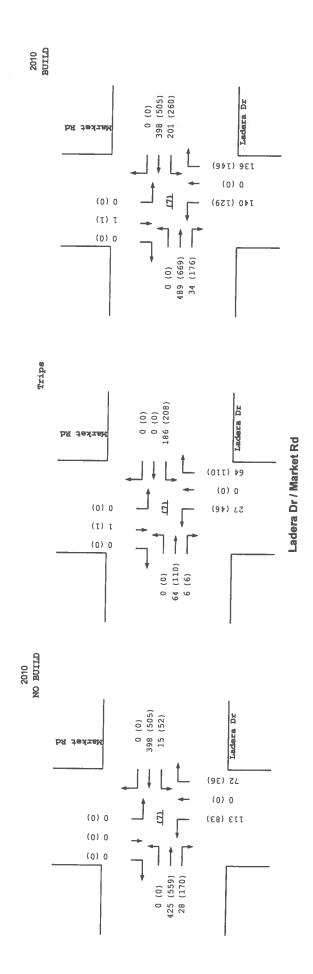
100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Easth	Eastbound (Ladera Dr)			oound (Lade	ra Dr)	North	bound (Mari	cet Rd)	Southbound (Market Rd)			
0	425	28	14	365	0	113	0	72	0	0	0	
0	513	156	48	463	0	83	0	36	0	0	0	

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	453	379	185	0
2007 PM Link Volume	669	511	119	0
Based on MRCOG Model (2030 Data Set)			119	U
2005 AM Link Volume	355	355	0	
2005 PM Link Volume	261	261	0	0
2030 AM Link Volume	452	1202	30	0
2030 PM Link Volume	1062	1042	47	0
Growth Rate to Apply to Existing Counts to Match 2	030 Forecasts			
2007-2030 AM Growth Rates	-0.01%	9.44%	-3,64%	#DIV/01
2007-2030 PM Growth Rates	2.55%	4.52%	-2.63%	#DIV/0!
Growth Rate to Apply to 2005 Model Volumes to Ma	atch 2030 Forecasts			
2005-2030 AM Growth Rates	1.09%	9.54%	#DIV/O	AIDD (10)
2005-2030 PM Growth Rates	12.28%	11.97%	#DIV/0!	#DIV/01 #DIV/01



Heritage Neighborhood Center (Ladera Dr / Unser Blvd) Projected Turning Movements Worksheet

Ladera Dr / Driveway 'A'

0.0097

INTERSECTION:

E-W Street: Ladera Dr

Driveway 'A'

0.00%

(9)

Year of Existing Counts

2007

Implementation Year

2010

N-S Street:

Growth Rates

Existing Volumes

Background Traffic Growth

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting)
Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) **Total Trips Generated**

Total AM Peak Hour BUILD Volumes

	010010			0.0076			0.0076		0.00%			
Easti	bound (Lade	era Dr)	West	bound (Lade	ra Dr)	Northbe	ound (Drive	(A' vsw	Southbound (Driveway 'A')			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	520	0	0	466	0	0	0	0	0	0	O	
0	0	<u>0</u>	0	0	0	0	0	0	0	0	0	
0	520	0	0	466	0	0	0	0	0	0	0	
0.00%	1.00%	5.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
0.00%	0.00%	0.00%	0.00%	6.90%	0.00%	0.00%	0.00%	16.83%	0.00%	0.00%	0.00%	
0.00%	1.00%	5.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
0.00%	0.00%	0.00%	0.00%	6.23%	0.00%	0.00%	0.00%	13.81%	0.00%	0.00%	0.00%	
. 0	6	33	0	27	0	0	0	65	0	0	0	
0	526	33	0	493	0	0	0	65	0	0	0	

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering)
Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volumes

		3.00%			3.00%			0.00%			0.00%	
		ound (Lade	ra Dr)	West	bound (Lade	era Dr)	Northb	ound (Drive	way 'A')	Southb	ound (Drive	(A' vaw
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	648	0	0	652	0	0	0	0	0	0	0
	0	<u>58</u>	<u>0</u>	0	59	0	Q	0	0	0	0	0
	0	706	0	0	711	0	0	0	0	0	0	0
	0.00%	1.00%	5.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	6.90%	0.00%	0.00%	0.00%	16.83%	0.00%	0.00%	0.00%
	0.00%	1.00%	5.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ĺ	0.00%	0.00%	0.00%	0.00%	6.23%	0.00%	0.00%	0.00%	13.81%	0.00%	0.00%	0.00%
	0	6	37	0	46	0	0	0	111	0	0	0.0070
	0	712	37	0	757	Ó	0	0	111	0	0	0
	0	-48	48	0	-48	0	0	0	52	0	0	o l
18	0	664	85	0	709	0	0	0	163	0	. 0	0

Number of Commercial Trips Generated

Entering Exiting A.M. P.M. A.M. 499 378 602 580

100% Commercial Development

Number of Office Trips Generated

68 9 20 96 P.M. 100% Office Development

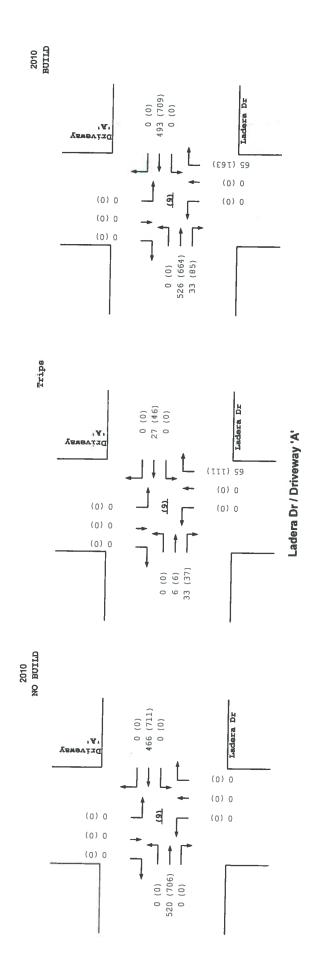
2007	AM	Peak	Нг.	Volumes
2007	PM	Peak	Hr.	Volumes

i	Eastb	ound (Lader	a Dr)	Westb	ound (Lade	ra Dr)	Northbo	und (Drive	way 'A')	Southbo	ound (Drive	('A' yaw
	0	520	0	0	466	0	0	0	0	0	0	0
	0	648	0	0	652	0	0	0	0	0	0	0

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	520	465	0	
. 2007 PM Link Volume	648	652	o o	o o
Based on MRCOG Model (2030 Data Set)		902	0	U
2005 AM Link Volume	370	327	1248	4040
2005 PM Link Volume	313	1024	1058	1049 1246
2030 AM Link Volume	1468	848	1609	777
2030 PM Link Volume	923	1753	1389	1534
Growth Rate to Apply to Existing Counts to Match 2	030 Forecasts			
2007-2030 AM Growth Rates	7.93%	3.56%	#DIV/01	#Ph/m
2007-2030 PM Growth Rates	1.85%	7.34%	#DIV/0!	#DIV/01 #DIV/01
Growth Rate to Apply to 2005 Model Volumes to Ma	atch 2030 Forecasts			
2005-2030 AM Growth Rates	11.87%	6.37%	1.16%	-1.04%
2005-2030 PM Growth Rates	7.80%	2.85%	1.25%	0.92%

Pass-by Trip Calculations:												
PM Pass-by Trips	Easth	ound (Lade	era Dr)	West	ound (Lade	ra Dr)	Northbo	ound (Drive	ray 'A')	Southb	ound (Drive	LP, ven
Percent Entering	0.60%	-18.00%	18.00%	0.00%	-18.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Entering	0	-48		0	-48	0	0	0	0	0	0	0
Percent Exiting	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18.00%	0.00%	0.00%	0.00%
Volume Exiting	0	0	0	0	0	0	0	0	52	0	0	0
Net PM Passby Trips	0	-48	48	0	-48	0	0	0	52	0	0	0
	Entering	Exiting										-
Pass-by Trips	0		AM									
	267	290	PM									



Projected Turning Movements Worksheet

Driveway 'B' / Market Rd

INTERSECTION:

E-W Street: Driveway 'B'

(10)

Year of Existing Counts

N-S Street: Market Rd 2007

Implementation Year

2010

Growth Rates

Existing Volumes

Background Traffic Growth Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

- Total Trips Generated

Total AM Peak Hour BUILD Volumes

38		0.00%			0.00%			0.00%			0.00%	
	Eastbo	ound (Drivey	ray 'B')	Westbo	ound (Drives	vay 'B')	North	oound (Mari	(et Rd)	South	ound (Mari	et Rd)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	185	0	0	42	0
	<u>0</u>	<u>0</u>	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	185	0	0	42	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.92%	0.00%	0.00%	0.00%	1.00%	33.66%
	22.73%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.00%	1.00%	27.61%
	19.03%	0.00%	0.25%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
	88	0	3	0	0	0	5	4	0	0	6	187
18	88	0	3	0	0	0	5	189	0	O	48	197

Existing Volumes

Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Total PM Peak Hour BUILD Volumes

	ound (Drives		Westbe	ound (Driver	way 'B')	Northi	oound (Mari	et Rd)	South	bound (Mari	(et Rd)
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	119	0	0	204	D
<u>0</u>	<u>0</u>	0	Q	Q	0	Q	Q	0	0	0	0
0	0	0	0	0	0	0	119	0	0	204	0
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.92%	0.00%	0.00%	0.00%	1.00%	33,66%
22.73%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.00%	1.00%	27.61%
19.03%	0.00%	0.25%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
150	0	5	0	0	0	6	7	0	0	6	209
150	0	5	0	0	. 0	- 6	126	0	0	210	257

Number of Commercial Trips Generated

Number of Office Trips Generated

499 378 602 580 P.M. 68 A.M. 20 96 P.M.

Exiting

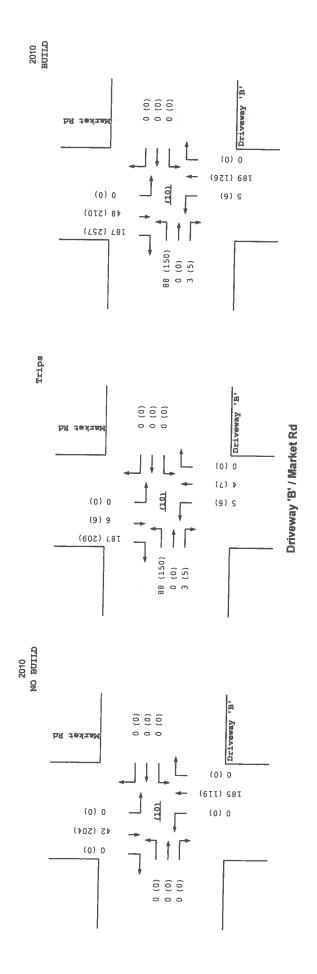
Entering

100% Commercial Development

100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Eastbound (Driveway 'E	3")	Westbound	(Driveway	'B')	Northbo	und (Market	Rd)	Southbo	und (Mark	et Rd)
0	0	0	0	0	0	0	185	0	0	42	0
0	0	0	0	0	0	0	119	0	0	204	0



Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2010) - 100% Development

Case F - full access at Intersection 12

INTERSECTION:

Summary

Hanover Rd / Driveway 'C'

3.0% Truck Existing (2007)

2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

Driveway 'D' / Unser Blvd

(12) 3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

_		0.85			0.85			0.85			0.85	PHF
L	Eastbo	und (Hanov	er Rd)	Westb	ound (Hanov	/er Rd)	Northb	ound (Drive	way 'C'}	Southb	ound (Drive	way 'C')
L	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
-	0	0	0	0	0	0	0	0	0	0	0	0
L	0	0	0	0	0	0	0	0	0	0	0	0
L	0	0	0	0	0	11	0	0	0	7	0	0
		0.05										

	0.85			0.85			0.85			0.85	PHF
	und (Hanov		Westb	ound (Hanov	rer Rd)	Northb	ound (Drive	way 'C')	Southi	ound (Drive	way 'C')
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	11	0	0	0	12	0	0

_		0.85			0.85			0.85			0.85	PHF
L	Eastbo	und (Drivew	ray 'D')	Westbo	ound (Drivey	vay 'D')	Northb	ound (Unse	r Blvd)	Southb	ound (Unsei	Blvd)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
L	0	0	0	0	0	0	0	701	0	0	1,588	n
L	0	0	0	0	0	0	0	797	0	0	1,806	0
L	0	0	0	144	0	80	0	797	216	116	1,806	0
		0.85			0.85			0.95			0.95	DUE

r		0.85			0.85			0.95			0.95	PHF
ŀ		und (Drivey		Westbo	ound (Drive	vay 'D')	North	ound (Unse	Unser Blvd) Southbound (Uns		bound (Unse	
ļ	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	1,520	0	0	966	0
L	0	0	0	0	0	0	0	1,709	0	0	1,086	0
L	0	0	0	340	0	295	0	1,613	327	204	1,011	0

Projected Turning Movements Worksheet

Hanover Rd / Driveway 'C'

0.009/

INTERSECTION:

E-W Street: Hanover Rd N-S Street: Driveway 'C'

በ በበሚ

(11)

Year of Existing Counts

2007

Implementation Year 2010

Growth Rates

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering)
Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) - Total Trips Generated

Total AM Peak Hour BUILD Volumes

_		0.0078			0.00 /6			0.0076			0.00%	
		ound (Hanor		Westb	ound (Hano	ver Rd)	Northb	ound (Drive	way 'C')	Southb	ound (Drive	vav 'C')
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	0	0	0	0	n
	0	0	0	0	Q	Q	0	0	Q	Q	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ı	_0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%
	0	0	0	0	0	11	0	0	0	7	0	0
8	0	0	0	. 0	0	11	0	. 0	. 0	. 7	0	. 0

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

Total Trips Generated Total PM Peak Hour BUILD Volumes

	ound (Hanov		Westb	ound (Hano	ver Rd)	Northb	ound (Drive	way 'C')	Southb	ound (Drive	BBV 'C')
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	. 0	0	0	0	0	0	0	0	0	0	0
0	<u>0</u>	<u>0</u>	0	0	0	Q	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1,25%	0.00%	0.00%
0	0	0	0	0	11	0	0	0	12	0	0
. 0	. 0	0	. 0	. 0	11	0	. 0	. 0	12	. 0	0

Number of Commercial Trips Generated

Exiting Entering 499 378 A.M.

100% Commercial Development

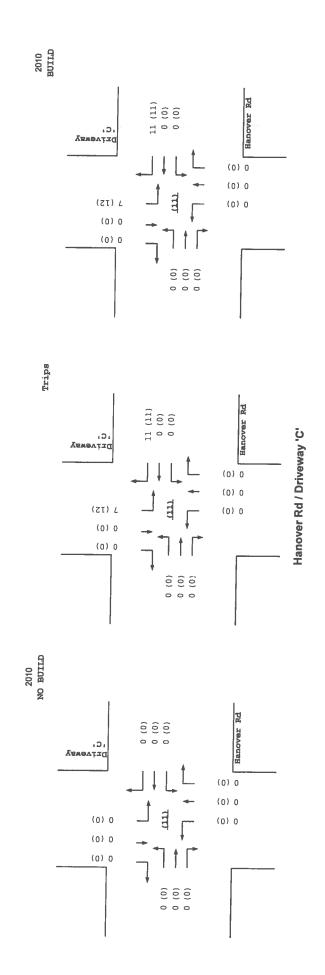
Number of Office Trips Generated

602 P.M. 580 A.M. P.M.

100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Eastbound (Hanover Rd) Westbound (Hanover Rd) No												
Casun	Durid (riano	ver icu)		Westboun	d (Hanove	er Rd)	Northb	ound (Drive	way 'C')	Southb	ound (Drivew	ay 'C')
0	0	1	0	0	0	0	0	0	0	0	0	0
0	0		0	0	0	0	0	0	0	0	0	0



12/25/2007

Projected Turning Movements Worksheet Driveway 'D' / Unser Blvd

0.00%

0

0

0

0

Right

0.00%

20.70%

0.00%

18.69%

138

138

157

295

0

Westbound (Driveway 'D')

Thru

0.00%

0.00%

0.00%

0.00%

INTERSECTION:

E-W Street:

Driveway 'D' N-S Street: **Unser Blvd**

(12)

Year of Existing Counts

Implementation Year

2007

2010

Growth Rates

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Total AM Peak Hour BUILD Volumes

э,		U.UU7e			0.00%			4.58%			4.58%	
		und (Driver		Westb	ound (Driver	way 'D')	North	ound (Unse	r Blvd)	Southb	ound (Unse	r Rhed)
Į	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	701	0	0	1,588	- C. G. C.
	<u>0</u>	<u>0</u>	0	0	0	0	0	96	0	0	218	
	0	0	0	0	0	0	0	797	0	0	1.806	<u>~</u>
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36,91%	20.70%	0.00%	0.00%
	0.00%	0.00%	0.00%	36.91%	0.00%	20.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.95%	18,69%	0.00%	0.00%
	0.00%	0.00%	0.00%	46.95%	0.00%	18.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ŀ	0	0	0	144	0	80	0	0	216	116	D	0.0070
8	0	0	. 0	144	0	80	0	797	216	116	1.806	. 0

4.15%

Right

36.91%

0.00%

46.95%

0.00%

231

327

0

Northbound (Unser Blvd)

Thru

0

0

0

0

0.00%

0.00%

0.00%

1,520

1,709

0.00%

0.00%

0.00%

0.00%

Northbound (Unser Bivd)

-36.00%

0.00%

-96

0

-96

36.00%

0.00%

96

96

1,709

-96

1,613

<u>189</u>

4.15%

966

120

1.086

0.00%

0.00%

0.00%

0.00%

1,086

1,011

Southbound (Unser Blvd)

28.00% -28.00% 0.00%

0.00%

-75

-75

75

75

0.00%

Right

0.00%

0.00%

0.00%

0.00%

0

0

0

0

0

0

0

0.00%

Southbound (Unser Blvd)

Thru

Left

20.70%

0.00%

18.69%

0.00%

129

129

75

204

0

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volumes

Entering	Exiting	
499	378	Δ

A.M. 100% Commercial Development

Left

0.00%

36.91%

0.00%

46.95%

259

259

81

340

0

0

0

0.00%

0.00%

0.00%

0.00%

0

0

Number of Office Trips Generated

Number of Commercial Trips Generated

602 580 P.M. A.M. 20 96 P.M.

Eastbound (Driveway 'D')

0.00%

0

0.00%

0.00%

0.00%

0

0

0

Eastbound (Driveway 'D')
Left Thru Right

0.00%

0.00% 0.00%

0.00%

Left

0.00%

0.00%

0.00%

0.00%

0

0

0

0

0

100% Office Development

Westbound (Driveway 'D')

0 00%

0

0.00% 0.00%

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Eastb	ound (Drivews	ly 'D')	Westb	ound (Drivey	vav 'D')	North	oound (Unse	ar Blyd)	South	ound (Unse	e Dhedi
0		0	0	0	0	ρ	0	701	1 0	000000	1.588	u DIAO
0		0	0	0	0	0		1,520		- 0		
						- 0		1,020		U	966	0

0.00%

0.00%

0.00%

54.00%

0

157

Pass-by Trip Calculations: PM Pass-by Trips

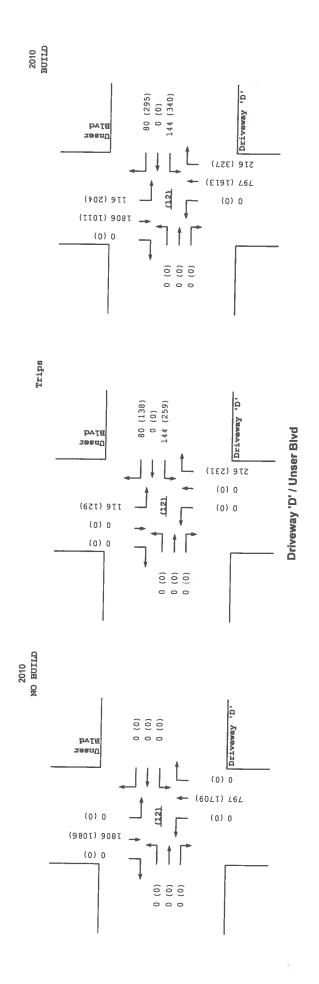
Percent Entering Volume Entering Percent Exiting Volume Exiting Net PM Passby Trips

0 0 Entering Exiting

0

0

0.00%



12/25/2007

2: Ladera Dr & Unser Blvd

HCM Signalized Intersection Capacity Analysis

Terry O. Brown, P.E.

2: Ladera Dr & Unser Blvd

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Lane Configurations Ideal Flow (vptpt)
Total Lost time (s)
Lane Util. Factor

Terry O. Brown, P.E. 12/26/2007

WBR

3400

3.0 3.0 1.00 1.00 3505 3505 3505 1.365 0.89

3.0 3.0 0.97 0.95 0.95 0.95

3.0 3.0 3.0 3.0 3.400 3.400 3.400

1800 3.0 3.0 3.0 3.0 3.286 1.00 3.286 1.00 1.00 2.48 2.48

3.0 3.0 3.0 3.0 3.0 3.0 3.0 5.85 5.760 5.760 5.87 6.85 6.85

1.00 1.00 1.00 1.00 1.00 3505 3505 3505

3.0 1.00 1.00 1.752 4.0

Fit Fit Protected Satd. Flow (prot)

Satd. Flow (perm)

Fit Permitted

Volume (vph)

64.2 6.4.2 5.0 5.0 3.0 958 0.01 0.03 0.07 0.07 7.9

c0.43

0.08

1529

1.00 30.9 0.87 21.0 47.9 D

49.3 1.00 2.7 51.9

0.80 0.80 7.4 A

0.42 36.4 1.02 0.4 37.4 D

43.1 25.1

45.3 1.00 20.4 65.7 0.82

222

Incremental Delay, d2

Uniform Delay, d1 Progression Factor Approach Delay (s)

Approach LOS

Level of Service

Delay (s)

0.53 22.1 0.78

69'0 49.1 7.2 7.2 58.6

9

1522

140 Prot

0 2 E 20

686 Prot

13

529

RTOR Reduction (vph) Peak-hour factor, PHF

Adj. Flow (vph)

ane Group Flow (vph)

pm+ov

431

55 0 14 0.89

376 0.85

828 828 828 3505

0.85 182 182

145 173

0.87

0.87

48.0 0.44 5.0 3.0

72.0

8.0 0.07 3.0 3.0 0.04

47.0 49.0 0.45 5.0 3.0 0.24

7.0 9.0 9.0 3.0 2.78 0.06

22.8 24.8 0.23 5.0 5.0 741 0.09

21.0 23.0 5.0 5.0 711 20.20

16.0 118.0 5.0 5.0 5.74

Vehicle Extension (s)

Clearance Time (s) Lane Grp Cap (vph)

34.2

Actuated Green, G (s) Effective Green, g (s) Actuated g/C Ratio

Turn Type Protected Phases Permitted Phases

90.15

391 0.10 0.58 30.1

v/s Ratio Perm

v/s Ratio Prot

	1	1	1	-	ţ	1	—	•	٨	→	•	
Lane Group	EBI	EBT	EBR	WBL	WBT	EN	MBT	MBR	8	RAT	003	
Lane Configurations	<i>y</i> -	‡	10 m		#	5	\$	-	-		3	
volume (vpn)	199	460	201		196	163	202	376	125	1356	-13-	
lum Iype	pm+pt		pm+ov			Prot		Dm+ov	Prot		20tmc	
Protected Phases	7	4	5		60	9	2			a	1	
Permitted Phases	4		4				1	9 6		3		
Detector Phases	7	4	9	e	8	LC:	0	4 67		ď	4 0	
Minimum Initial (s)	5.0	-	5.0		20	50	20	מ	4	9 0	- 0	
Minimum Spift (s)	10.0	21.0	10.0	10.0	21.0	10.0	210	10.0	10.0	2.0	0.0	
Total Split (s)	21.0	21.0	12.0	26.0	26.0	12.0	52.0	28.0	1 5	21.0	24.0	
Fotal Spit (%)	19.1%	19.1%	10.9%	23.6%	23.6%	10.9%	47 3%	23.894	10.08	AR 484	70.10	
rellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	40	AD	2 4	40.4 A	2 0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	10	10	10	9 0	9 0	
.ead/Lag	Lead	Lag	Lead	Lead	200	Page	00	Poor	lond	2 6	2 7	
-Bad-Lag Optimize?			H	200	2	200	R	rago	Ledu	3	read	
Recall Mode	Min	Min	Min	Min	Min	Min	C.May	Min	Moon	O Mari	-	
Act Effet Green (s)	34.2	180	30.0	22.0	0 70		AND	N L	NO IN	C-Max	MI	
Actional of Date	200	270	200	20.00	0+7	9.0	49.0	0.0	0.0	48.0	67.2	
A David	0.37	0.76	0.27	0.21	0.23	0.08	0.45	0.68	0.07	0.44	0.61	
VIC FUBIDO	0.61	0.92	0.90	0.98	0.50	0.69	0.53	0.41	0.57	100	0.12	
Control Delay	31.2	68.4	53.5	68.5	26.7	65.0	18.7	7.0	58.0	48.8	14	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	00	
Total Delay	31.2	68.4	53.5	68.5	26.7	65.0	18.7	2.0	58.0	48.8	1.4	
SO	O	ш	٥	Ш	O	ш	8	V	4	2	4	
Approach Delay		55.4			52.5		212			46.4		
Approach LOS		Ш			Q		O			0		
Thersection Summary	TELESCOPIES.	SHOW AND SHOW	Chesin	ESPECIFICAL DESIGNATION OF THE PERSON OF THE	PEWERAS	SCHOOL SHOW	PUDDING ERRORS	PRINTERAL PROPERTY.	Organization)	Service and		

Intersection LOS: DICU Level of Service E Offset: 84 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green Intersection Signal Detay: 43.5 Intersection Capacity Utilization 83.8% Control Type: Actuated-Coordinated Actuated Cycle Length: 110 Maximum v/c Ratio: 1.00 Natural Cycle: 100

Analysis Period (min) 15

Z] 2 P 땋 B **F** 8 **3** 2: Ladera Dr & Unser Blvd Splits and Phases: 3

۵ 9.0 H HCM Level of Service ICU Level of Service Sum of lost time (s) 43.3 0.95 110.0 83.8% Intersection Capacity Utilization HCM Volume to Capacity ratio Intersection Summary HCM Average Control Delay Actuated Cycle Length (s) Analysis Period (min) c Critical Lane Group

ak BUILD Conditions - MITIGATED
D:\ATOBE\PROJECTS\Peritage_\neighborhood_Marketplace_Ladera_Unser\CaseF\2010AB_\Mit.sy7 2010 AM Peak BUILD Conditions - MITIGATED

2010 AM Peak BUILD Conditions - MITIGATED

D:ATOBENPROJECTS'Heritage_Neighborhood_Marketplace_Ladera_Unser\CaseF\2010AB_Mit.sy7

	۶	\rightarrow	-	1	-	•	4	†	-	-	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	74	1		*	† 1>		ሻ				4	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	489	34	201	398	0	140	0	136	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.79	0.79	0.79	0.86	0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph) Pedestrians	0	556	39	254	504	0	163	0	158	0	1	0
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							10 311	Raised			Raised	
Median storage veh)							1000	1		ALTERNATION OF THE PARTY OF THE	1	
Upstream signal (ft)		888									Militaria de la	
pX, platoon unblocked												
vC, conflicting volume	504			594			1336	1588	297	1449	1607	252
vC1, stage 1 conf vol							575	575	- 1/4-020	1013	1013	LUL
vC2, stage 2 conf vol							761	1013		436	594	
vCu, unblocked vol	504			594			1336	1588	297	1449	1607	252
C, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
C, 2 stage (s)							6.6	5.6		6.6	5.6	7.0
F (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
00 queue free %	100			74			15	100	77	100	99	100
cM capacity (veh/h)	1050			971			191	173	696	110	141	745
Direction, Lane#	EB 1	EB 2	EB 3	WB 1	WB2	WB3	NB 1	NB 2	SB 1			
/olume Total	0	370	224	254	336	168	163	158	1			
/olume Left	0	0	0	254	0	0	163	0	0			
/olume Right	0	0	39	0	0	0	0	158	0			
SH	1700	1700	1700	971	1700	1700	191	696	141			
/olume to Capacity	0.00	0.22	0.13	0.26	0.20	0.10	0.85	0.23	0.01			
Queue Length 95th (ft)	0	0	0	26	0	0	157	22	1			
Control Delay (s)	0.0	0.0	0.0	10.0	0.0	0.0	82.4	11.7	30.8			
ane LOS				В			F	В	D			
pproach Delay (s)	0.0			3.4			47.5	COTAL SE	30.8			
pproach LOS							E		D			
itersection Summary		ARCHIE							Z. 200516	DZENS		
verage Delay			10.7					September 1	A WEST OF	ACT THE	10 - 3 - MI	
ntersection Capacity Uti	ization	5	0.2%	IC	U Leve	of Son	ico		A			

	\rightarrow	•	1	4	1	-	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1			^		7	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Volume (veh/h)	526	33	0		0	65	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.85	0.85	
Hourly flow rate (vph) Pedestrians	666	42	0		0	76	
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)	481						
pX, platoon unblocked			0.91		0.91	0.91	
vC, conflicting volume			708		999	354	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			585		904	198	
tC, single (s)			4.2		6.9	7.0	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		100	90	
cM capacity (veh/h)			894		251	737	
Direction, Lane#	EB 1	EB 2	WB1	WB 2	NB 1		
Volume Total	444	264	312	312	76		
Volume Left	0	0	0	0	0		
Volume Right	0	42	0	0	76		
cSH	1700	1700	1700	1700	737		
Volume to Capacity	0.26	0.16	0.18	0.18	0.10		
Queue Length 95th (ft)	0	0	0	0	9		
Control Delay (s)	0.0	0.0	0.0	0.0	10.4		
ane LOS					В		
Approach Delay (s)	0.0		0.0		10.4		
Approach LOS					В		
ntersection Summary							
verage Delay			0.6				
ntersection Capacity Uti	lization	3 2 3	26.3%	IC	U Level	of Service	a de la companya de l
Analysis Period (min)			15	The state of			

	1	-	4	†	Ţ	4	_	
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	14			લી	ĵ.		EMPLOY SERVICES	
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Volume (veh/h)	88	3	5	189	48	187		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.86	0.86		
Hourly flow rate (vph)	104	4	6	222	56	217		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None							
Median storage veh)								
Upstream signal (ft)								
pX, platoon unblocked								
vC, conflicting volume	399	165	273					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	399	165	273					
tC, single (s)	6.4	6.2	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	83	100	100					
cM capacity (veh/h)	602	877	1284					
Direction, Lane #	EB 1	NB 1	SB 1					
Volume Total	107	228	273			建设性 医皮肤囊肿		
Volume Left	104	6	0					
Volume Right	4	0	217					
SH	608	1284	1700					
Volume to Capacity	0.18	0.00	0.16					
Queue Length 95th (ft)	16	0	0					
Control Delay (s)	12.2	0.2	0.0					
ane LOS	В	Α						
Approach Delay (s)	12.2	0.2	0.0					
Approach LOS	В							
ntersection Summary	K							
Average Delay			2.2					
ntersection Capacity Uti	lization	2	25.8%	ICI	J Level	of Service	Α	
Analysis Period (min)			15				37116	

	1	-	←	1	-	1	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		4	1>		W		
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Volume (veh/h)	0	0	0	11	7	0	
Peak Hour Factor	0.85		0.85	0.85	0.85	0.85	
Hourly flow rate (vph)	0	0	0	13	8	0	
Pedestrians					100	The second second	
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	13				6	6	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	13				6	6	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF(s)	2.2				3.5	3.3	
00 queue free %	100				99	100	
cM capacity (veh/h)	1599				1012	1073	
Direction, Lane #	EB 1	WB 1	SB 1	Andreas VE			
/olume Total	0	13	8				
/olume Left	0	0	8				
/olume Right	0	13	0				
SH	1700	1700	1012				
/olume to Capacity	0.00	0.01	0.01				
Queue Length 95th (ft)	0	0	1				
Control Delay (s)	0.0	0.0	8.6				
ane LOS			Α				
Approach Delay (s)	0.0	0.0	8.6				
pproach LOS			Α				
ntersection Summary							
verage Delay			3.3				
ntersection Capacity Util	ization	1	3.3%	ICI	J Level	of Service	Α
nalysis Period (min)			15				

Timings 12: 'D' & Unser Blvd

Terry O. Brown, P.E. 12/26/2007

る主義

NET NER

WBL WBR

£ 4 8

Volume (vph)

pm+pt

pm+ov

Turn Type Protected Phases Permitted Phases

HCM Signalized Intersection Capacity Analysis 12: 'D' & Unser Blvd

Terry O. Brown, P.E. 12/26/2007

Movement Well Well Well Night Night Night Movement Night		•	/	 	•	•	→
1900 1900 1900 1900 1900 1900 1900 1900	Movement	WBI	WBR	NBT	NBR	SBL	Tes
1900 1900 1900 1900 1900 1900 1900 1900	Lane Configurations	15	N.	#	1	K	444
3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 10.0 10	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
0.97 1.00 0.81 1.00 0.91 1.00 0.91 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 1.00 0.89 1.00 1.00 0.89 1.00 1.00 0.89 1.00 1.00 0.89 1.00 1.00 0.89 1.00 1.00 0.89 1.00 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.89 1.00 0.99 0.90 0.90 0.90 0.90 0.90 0.9	Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0
1.00 0.85 1.00 0.85 1.00 1.00 3.40 0.85 1.00 1.00 0.95 1.00 3.40 0.100 1.00 0.27 1.00 3.40 0.100 1.00 0.27 1.00 3.40 0.100 1.00 0.27 1.00 3.40 0.100 1.00 0.27 1.00 3.40 0.100 1.00 0.27 1.00 4.4 80 797 2.16 116 1806 4.5 0.85 0.85 0.85 0.85 4.6 0.8 0.8 0.8 0.8 0.8 5.0 0.7 0 41 0 0.8 5.0 0.7 0 41 0 0.8 5.0 0.10 0.18 0.74 0.84 0.84 5.0 0.10 0.18 0.74 0.84 0.84 5.0 0.10 0.18 0.74 0.84 0.84 5.0 0.0 0.19 0.02 0.02 0.04 5.0 0.0 0.19 0.02 0.02 5.0 0.0 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 0.10 0.10 5.0 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0	Lane Util. Factor	0.97	1.00	0.91	1.00	1.00	0.91
0.85 1.00 1.00 0.95 1.00 0.86 1.00 1.00 0.95 1.00 0.86 1.00 1.00 1.00 0.95 1.00 0.86 1.588 50.36 1.588 1752 50.36 0.86 1.588 50.36 1.588 1752 50.36 0.86 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.87 0.87 0.81 116 180.6 0.77 0 41 0 0 85 0.85 0.85 0.85 0.77 0 41 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	E	1.00	0.85	1.00	0.85	1.00	100
3400 1568 5036 1568 1752 5036 0.955 1,00 1,00 0,27 1,00 3400 1568 5036 1568 1752 5036 144 80 797 216 146 1806 169 94 938 215 136 2125 h) 169 17 838 213 136 2125 h) 169 17 838 214 136 2125 h) 160 17 82 8 1 6 8 c) 14 20 81,0 92 4 92,6 92,6 f) 10 0.19 0.2 0.2 0.42 f) 10 0.19 0.2 0.2 0.42 f) 10 0.10 1.77 3.59 0.87 0.71 f) 10 0.10 0.2 0.1 0.1 0.1 f) 10 0.1 0.1 0.1 0.1 f) 10 0.1 0.1 0.1 0.1 f) 10 0.1 0	Fit Protected	0.95	1.00	1.00	1.00	0.95	100
0.95 1.00 1.00 0.27 1.00 3400 1588 5036 1568 496 5036 144 0.707 218 116 11806 158 0.85 0.85 0.85 0.85 0.85 0.85 169 94 938 254 136 2125 17 838 213 136 2125 19 94 160 78:0 84 90.8 90.8 11 4 20.0 81:0 92.4 92.6 92.6 10.10 0.18 0.70 92.4 92.6 92.6 11.4 20.0 81:0 92.4 92.6 92.6 10.10 0.18 0.70 0.20 0.20 10.0 0.10 0.20 0.10 0.20 10.0 0.10 0.2 0.10 0.20 10.0 0.10 0.2 0.10 0.10 10.0 0.1 0.2 0.1 0.1 10.0 0.1 0.2 0.1 0.1 10.0 0.1 0.2 0.1 0.1 10.0 0.1 0.2 0.1 10.0 0.1 0.1 10.0 0.1 0.1 10.0 0.1 0.1 10.0 0.1 0.1 10.0 0.1 0.1 10.0 0.1 0.1 1	Satd. Flow (prot)	3400	1568	5036	1568	1752	5036
3400 1568 5036 1568 496 5036 144 80 797 216 116 1806 169 0.85 0.85 0.85 0.85 0.85 169 94 938 254 136 2125 h) 169 17 838 213 138 2125 pm+vv pm+pt a 1 2 6 6 pm+vv pm+pt b 1 2 6 6 11.4 80 77 0 84 90.8 90.8 11.4 80 77 0 84 90.8 90.8 10.10 0.18 0.74 0.84 0.84 5.0 5.0 5.0 5.0 5.0 5.0 5.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 46.5 37.2 8.5 5.9 1.6 1.8 6.0 0.1 0.2 0.1 0.1 0.1 47.5 37.2 8.5 5.9 1.6 1.8 Closiay 6.7 HCM Level of Service cicky radio. 11.8 A A A A A A A A A A A A A A A A A A A	Fit Permitted	0.95	1.00	1.00	1.00	0.27	1.00
144 80 797 216 116 1806 160	Satd. Flow (perm)	3400	1568	5036	1568	496	5036
168	Volume (vph)	144	88	797	216	118	1808
188 94 938 254 136 2125 h) 189 77 80 4 1 0 0 m+ov pm+ov pm+pt 8 1 2 2 8 1 1 1 8 1 1 1 8 1 1 1 1 1 1 1	Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
h) 189 77 0 41 0 0 0 1	Adj. Flow (vph)	168	8	828	264	138	2125
h) 189 17 938 213 136 2125 pm+ov pm+ov pm+ot b	RTOR Reduction (vph)	0	11	0	41	0	0
8 1 2 8 1 6 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8	ane Group Flow (vph)	169	17	828	213	136	2125
8 1 2 8 1 6 8 2 6 8 2 6 8 4 600 790, 884 90.8 90.8 0.10 0.18 0.74 0.84 0.84 0.84 5.0 5.0 5.0 5.0 5.0 5.0 3.0 3.0 3.0 3.0 3.0 3.5 3.0 3.0 3.0 3.0 3.5 3.0 3.0 3.0 3.0 3.6 0.00 0.19 0.02 0.02 0.02 0.01 0.01 0.02 0.02 0.02 46.5 37.2 8.5 0.16 0.28 0.50 47.5 37.2 8.5 5.9 1.6 1.8 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.1 0.1 0.1 47.5 37.2 8.5 5.9 1.6 1.8 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	rum Type		A0+E			pm+mt	
8 2 6 6 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Protected Phases		1				
9, 9.4 16.0 79.0 88.4 90.8 90.6 11.4 20.0 81.0 92.4 92.6 92.6 0.10 0.10 0.10 0.20 8.0 90.8 90.8 90.8 90.8 90.8 90.8 90.8	Permitted Phases		80		2	. 60	
11.4 20.0 81.0 92.4 92.6 92.6 0.10 0.10 0.18 0.74 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.8	Actuated Green, G (s)	9.4	16.0	79.0	88.4	90.8	808
0.10 0.18 0.74 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.8	effective Green, g (s)	11.4	20.0	81.0	92.4	92.6	92.6
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Actuated g/C Ratio	0.10	0.18	0.74	0.84	0.84	0.84
3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Clearance Time (s)	2.0	5.0	5.0	5.0	5.0	5.0
352 328 3708 1360 516 4239 c0.05 0.01 0.02 0.02 c0.42 0.04 0.05 0.25 0.16 0.28 0.60 1.00 1.07 3.59 0.87 0.71 2 1.0 0.1 0.2 0.1 0.1 0.1 47.5 37.2 8.5 5.9 1.6 1.8 D A A A A A A A A A A A A A A A A A A A	/ehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
e5.06 0.00 0.19 0.02 0.02 e0.42 0.01 0.04 0.05 0.02 0.02 e0.42 0.01 0.01 0.02 0.02 e0.42 0.01 0.02 0.02 0.02 e0.42 0.02 0.03 0.03 0.03 0.03 0.03 0.03 0.0	ane Grp Cap (vph)	352	328	3708	1360	516	4239
0.01 0.12 0.20 46.5 0.26 0.16 0.28 0.60 46.5 37.2 4.7 1.6 1.8 2.4 1.00 1.00 1.77 3.59 0.87 0.71 2 1.0 0.1 0.2 0.1 0.1 0.1 47.5 37.2 8.5 6.9 1.6 1.8 D D A A A A A A A A A A A A A A A A A A	//s Ratio Prot	90.00	0.00	0.19	0.02	0.05	c0.42
0.48 0.05 0.25 0.16 0.26 0.50 46.5 37.2 4.7 1.6 1.8 2.4 1.00 1.00 1.77 3.59 0.87 0.71 1.0 0.1 0.2 0.1 0.1 0.1 47.5 37.2 8.5 5.9 1.6 1.8 43.9 7.9 A A A A 43.9 A A A A 43.9 A A A A 43.9 A A A 43.9 A A A A 44.9 A A A 45.79 B A A A 45.78 B	//s Ratio Perm		0.01		0.12	0.20	
46.5 37.2 4.7 1.6 1.8 2.4 1.00 1.00 1.77 3.59 0.87 0.71 47.5 37.2 8.5 5.9 1.6 1.8 D A A A A 43.8 7.9 A A A 43.9 A A A A 43.9 A A A A A (10 lay ratio 0.50 D Utilization 45.7% ICU Level of Service 15.00 15.00 Sum of loct time (s) 110.0 Sum of loct time (s) 110.0 Sum of loct time (s) 15.00 Sum of loct time (s) 15.00 Sum of loct time (s) 15.00 Sum of loct time (s) 16.1	//c Katio	0.48	0.05	0.25	0.16	0.28	0.60
1,00 1,00 1,77 3,59 0,87 0,71 2 1,0 0,1 0,2 0,1 0,1 0,1 47.5 37.2 8.5 6.9 1,6 1,8 C A A A A A A A A A A A A A A A A A A	Jniform Delay, d1	46.5	37.2	4.7	1.6	6	2.4
2 1.0 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Progression Factor	1.00	1.00	1.77	3.59	0.87	0.71
47.5 37.2 8.5 5.9 1.6 1.8 D A A A A A A A A A A A A A A A A A A	ncremental Delay, d2	1.0	0.1	0.2	0.1	0.1	0.1
43.8 7.9 A A A A A A A A A A A A A A A A A A A	Delay (s)	47.5	37.2	8.5	6.9	1.6	18 S. C. C. C.
43.9 7.9 1.8 Location 10.0 Sum of lost time (s) 10.1 10.0 Sum of Service 11.0 Sum of lost time (s) 11.0 Sum of lost time (s) 12.0 Sum of lost time (s) 13.0 Sum of lost time (s) 14.7% ICU Level of Service 15.0 Sum of lost time (s)	evel of Service	۵	۵	4	4	4	4
D A A A A A A A A A A A A A A A A A A A	Approach Delay (s)	43.8		7.9			18
Collegy 6.7 HCM Level of Service clay 0.50 0.50 110.0 Sum of lost time (s) 110.0 Sum of lost time (s) 15.7% ICU Level of Service 15	Approach LOS	۵		∢			<
Delay 6.7 HCM Level of Service 0.50 0.50 110.0 0.50 110.0 0.50	Hersection Summary	Sec. Als	STARTED IN	MARKET	STATE OF THE PARTY		STATE OF THE PARTY
h (s) 110.0 Sum of lost time (s) Utilization 45.7% ICU Level of Service 15	ICM Average Control De ICM Volume to Capacity	elay r ratio	100	6.7	Ī	CM Lev	el of Service
tilization 45.7% ICU Level of Service	Actuated Cycle Length (s	-		1100	Ü	un of lo	of Simo (a)
15	ntersection Capacity Util	ization		27%	, <u>S</u>	It I evel	of Service
The state of the s	vnalysis Period (min)			13			

C-Max 82.6 0.84 0.50 1.9 1.9 1.9 A

8.7

8.8

51.1

36.0

Approach Delay Approach LOS

Min 92.6 0.84 0.27 1.8 1.8

Min 95.4 0.87 0.0 0.0 0.8

0.48

Control Delay Queue Delay Total Delay

C-Max 81.0

Mën 23.0 0.21 0.23

Min 11.4 0.10

21.0 21.0 95.0 86.4% 4.0

13.6% 72.7%

4.0 1.0 Lead

Total Spit (%)
Total Spit (%)
Yellow Time (s)
Al-Red Time (e)
Lead/Lag Optimize?
Recall Mode
Act Effet Green (s)
Actualed g/C Ratio

5.0 10.0 15.0 13.6%

5.0 21.0 15.0 13.6%

5.0 21.0 80.0

5.0 10.0 15.0

5.0 21.0 15.0 13.6% 4.0 1.0

Minimum Initial (s)

Minimum Spilt (s) Detector Phases

2010 AM Peak BUILD Conditions - MITIGATED

D:ATOBEIPROJECTS'Heritage_Neighborhood_Marketplace_Ladera_Unser\CaseF2010AB_Mit.sy7

ዌ 12 2

Intersection LOS: A ICU Level of Service A

Intersection Capacity Utilization 45.7%

Analysis Period (min) 15

Intersection Signal Delay: 5.9

Maximum v/c Ratio: 0.50

Control Type: Actuated-Coordinated

Natural Cycle: 55

12: 'D' & Unser Blvd

Splits and Phases:

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Actuated Cycle Length: 110

Intersection Summar

2010 AM Peak BUILD Conditions - MITIGATED

D:ATOBENPROJECTS'Heritage_Neighborhood_Marketplace_Ladera_Unser\CaseF\2010AB_Mit.sy7

2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.

HCM Signalized Intersection Capacity Analysis 2: Ladera Dr & Unser Blvd

t

Terry O. Brown, P.E. 12/26/2007

3505 3505 3505 3505 3505

0.97 0.95 0.95 0.95 0.95

1.00 1.00 1.00 1.00 1.00

11800 3.0 3.0 3.400 607 639

1800 330 0.95 0.95 0.95 1.00 1.00 1.00 3316 486 6.53 6.53 788

3400

0.97 0.85 0.95 0.96

0.85 0.85 1.00 1.00

Total Lost time (s) Lane Util. Factor

ideal Flow (vphpl)

18

WBR 006 1169 0.96 1218

302 38

245 745

3505 1524 0.95

279

594 639

387

85 93 84 88 93 88

192 0.93

Satd. Flow (perm)

Satd. Flow (prot)

Fit Protected Fit Permitted Prot

ртт+оv 3

F 20

734

8

639

83

384

359

200

ane Group Flow (vph)

Adj. Flow (vph) RTOR Reduction (vph) Volume (vph)
Peak-hour factor, PHF

0.34

0.98

0.97 48.1 1.06 27.4 78.4

0.93 44.1 0.97 17.0 59.7

0.96 29.9 76.3

48.5 3.9 3.9 52.4 0 0

Incremental Delay, d2

Progression Factor

Jniform Delay, d1

0.07 0.07 0.03 29.9 1.00 0.2 0.2 0.2

0,35 5.0

0.95 36.9 0.90 12.0 45.3 D

0.0 T

HCM Level of Service Sum of lost time (s) ICU Level of Service

0.96 120.0 97.0%

Actuated Cycle Length (s) Intersection Capacity Utilization

Analysis Period (min) c Critical Lane Group

HCM Volume to Capacity ratio HCM Average Control Delay

ntersection Summary

Approach Delay (s)

Level of Service Approach LOS

Delay (s)

42.0

79.0

9.2 0.09 3.0 3.0 0.09

56.0 56.0 5.0 3.0 1636 50.46

21.2 23.2 5.0 5.0 5.0 6.79 6.79

27.8 29.8 0.25 5.0 3.0 823 823

652

520

0.08

v/s Ratio Prot v/s Ratio Perm v/c Ratio

21.0 23.0 3.0 3.0

37.0 41.0

15.8 17.8 0.15

28.8

Actuated Green, G (s)

Protected Phases Permitted Phases

Effective Green, g (s)

Actuated g/C Ratio

Clearance Time (s) Vehicle Extension (s)

Lane Grp Cap (vph)

3.0

	\	†	~	\	,		-	•	•	-	*
Lane Group	EBL	EBT	ER	WBL	WBT	IGN.	MBT	AIRC	PBS:	PERT	000
Lane Configurations	<i>#</i>	‡	N.	5	\$	-	\$	*	1	1	N R
Volume (vpn)	192	334	360	284	496	607	1524	708		1169	333
lum lype	pm+pt		pm+ov	Prot		Pro		Dm+ov			Day of the
Protected Phases	7	4	5	3	8	2	2	3		8	7
Permitted Phases	4		4							•	
Detector Phases	7	4	2	6	B	4	6	7 6		0	9 1
Minimum Initial (s)	5.0	5.0	5.0	5.0	200	2 6	4 0		-	0 0	
Minimum Solli (e)	400	24.0	2	200	2.0	3 6	0.0		2.0		
Total Calls (a)	10.0	0.12	00	20.0	21.0	10.0	21.0		10.0	21.0	
oral Split (S)	0.4	21.0	26.0	26.0	33.0	26.0	59.0		14.0	47.0	
1 Oct (%)	11.7%	17.5%	21.7%	21.7%	27.5%	21.7%	49.2%	N	11.7%	39 2%	-
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	40	40
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		10	10	
Lead/Lag	Lead	Lad	Lead	Lead	- 20	Pod	20	}	1	2	
Lead-Lag Optimize?				STATE OF	1		9	13	Lead	Lag	
Recall Mode	Min	Min	M	Min	Min	Min	C.May	Min	Min	O Man	A.C.
Act Effet Green (s)	28.8	17.8	440	23.0	20.0	92.9	200	000	100	-IMBA	IMIN
Achiated of Patio	0.24	0.45	0	200	3 6	20.7	20.00	0.20	711	44.0	28.0
A Design	0.24	0.0	0.37	U.19	0.25	0.19	0.47	0.68	0.09	0.37	0.48
We reallo	0.83	0.69	0.39	0.98	0.94	0.97	0.88	0.69	0.95	0.95	0.44
Control Delay	77.1	26.1	27.9	77.3	56.7	79.3	41.3	12.3	83.8	45 B	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	00	00	00
Total Delay	77.1	56.1	27.9	77.3	58.7	79.3	413	123	83.8	45.8	21.1
502	ш	ш	O	ш	Ш	Ш	0	Œ	4	2	
Approach Delay		48.9			65.6		42.2	3		17.5)
Approach LOS		۵			ш		0			4 0	
							1				

Actuated Cycle Length: 120

Offset. 26 (22%). Referenced to phase 2:NBT and 6:SBT, Start of Green Natural Cycle: 110

Control Type: Actuated-Coordinated Maximum v/c Ratio: 0.98

Intersection Capacity Utilization 97.0% Intersection Signal Delay: 49.2 Analysis Period (min) 15

Intersection LOS: D

1 : Eg 8 2: Ladera Dr & Unser Blvd Splits and Phases: 8 ьß 2010 PM Peak BUILD Conditions - MITIGATED

D:ATOBENPROJECTSWeritage_Neighborhood_Marketplace_Ladera_Unser\CaseF2010PB_Mit.sy7

	•	\rightarrow	-	1	4	•	. 4	†	-	1	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBF	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1		*	† ‡		*	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN COLUMN 1			4	
Sign Control		Free		72,185,2	Free		5020	Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	669	176	260	505		129			1	1	1 051
Peak Hour Factor	0.93	0.93	0.93			0.80		0.88		0.85	0.85	0.85
Hourly flow rate (vph)	1	719	189		631			1		1	1	0.03
Pedestrians						MINISTER SA	NO SECTION	Child Sept.	100		The state of the s	100
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								Raised		and the	Raised	
Median storage veh)								1		THE PARK	\aiseu	
Upstream signal (ft)		888						No Carlo				
pX, platoon unblocked		Anna de de										
vC, conflicting volume	632	y de j		909			1784	2099	454	1810	2193	316
vC1, stage 1 conf vol							816	816	707	1282	1282	310
vC2, stage 2 conf vol							967	1282		528	911	
vCu, unblocked vol	632			909			1784	2099	454	1810	2193	316
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)				epiterizie.			6.6	5.6	7.0	6.6	5.6	7.0
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			56			0.0	99	70	95	95	100
cM capacity (veh/h)	939			739			106	98	550	22	25	677
Direction, Lane#	EB 1	EB 2	EB 3	WB1	WB 2	WB3	NB 1	NB 2	SB 1			
/olume Total	1	480	429	325	421	212	147	167	4			SEAR DEA
Volume Left	1	0	0	325	0	0	147	0	1			
/olume Right	0	0	189	0	0		0	166	300 je			
SH	939	1700	1700	739	1700	1700	106	533	34			
/olume to Capacity	0.00	0.28	0.25	0.44	0.25	0.12	1.38	0.31	0.10			
Queue Length 95th (ft)	0	0	0	56	0	0	259	33	8			
Control Delay (s)	8.8	0.0	0.0	13.6	0.0	0.0	292.2	14.8	121.3			
ane LOS	Α			В			F	В	F			
Approach Delay (s)	0.0			4.6			144.5	SCHOOL SE	121.3			
Approach LOS							F		F			
ntersection Summary		SHO.	<u>.</u>					影響動				
verage Delay			23.0			ome on los		-				100000
ntersection Capacity Util	lization	6	32.3%	IC	U Leve	of Ser	vice		В			
nalysis Period (min)			15						L.			

	-	-	1	-	1	-	
Movement	EBT	EBR	WBL	. WBT	NBL	NBR	
Lane Configurations	1			^		7	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Volume (veh/h)	664	85	0		0	111	
Peak Hour Factor	0.93	0.93			0.85	0.85	
Hourly flow rate (vph)	714	91	0		0	131	
Pedestrians						and a second	
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None	General Maria	
Median storage veh)							
Upstream signal (ft)	481						
pX, platoon unblocked							
vC, conflicting volume			805		1167	403	
vC1, stage 1 conf vol					W. R. (47) (1/20)	HOUSE LOUIS SHOULD SHOW	
vC2, stage 2 conf vol							
vCu, unblocked vol			805		1167	403	
tC, single (s)			4.2		6.9	7.0	
tC, 2 stage (s)						period editory in yes	and the second of the second o
tF(s)			2.2		3.5	3.3	
00 queue free %			100		100	78	
cM capacity (veh/h)			808		185	594	
Direction, Lane#	EB 1	EB 2	WB1	WB 2	NB 1	NI BOSNIFA	
/olume Total	476	329	407	407	131		
/olume Left	0	0	0	0	0		
/olume Right	0	91	0	0	131		
SH	1700	1700	1700	1700	594		
/olume to Capacity	0.28	0.19	0.24	0.24	0.22		
Queue Length 95th (ft)	0	0	0	0	21		
Control Delay (s)	0.0	0.0	0.0	0.0	12.8		
ane LOS					В		
Approach Delay (s)	0.0		0.0		12.8		
Approach LOS					В		
ntersection Summary		Maria Su					
verage Delay			1.0				
ntersection Capacity Uti	lization		34.6%	IC	U Level	of Service	A A CONTRACTOR OF THE PARTY OF
nalysis Period (min)			15	COLUMN TO SERVE SERVE			

	1	-	1	†	Ţ	1	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	14	The second secon		स	^		
Sign Control	Stop	171.191		Free	Free		
Grade	0%			0%	0%		
Volume (veh/h)	150		6	126	210	209	
Peak Hour Factor	0.85		0.88	0.88	0.88	0.88	
Hourly flow rate (vph)	176	6	7	143	239	238	
Pedestrians		NAME OF TAXABLE PARTY.	eg wells elle			200	
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	514	357	476				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	514	357	476				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF(s)	3.5	3.3	2.2				
p0 queue free %	66	99	99				
cM capacity (veh/h)	515	685	1081				
Direction, Lane#	EB 1	NB 1	SB 1				
Volume Total	182	150	476				
Volume Left	176	7	0				
Volume Right	6	0	238				
SH	519	1081	1700				
/olume to Capacity	0.35	0.01	0.28				
Queue Length 95th (ft)	39	0	0				
Control Delay (s)	15.6	0.4	0.0				
ane LOS	С	Α					
Approach Delay (s)	15.6	0.4	0.0				
Approach LOS	C		A lay Televin (Sept.)				
ntersection Summary				可保持部		副光 能到	
verage Delay			3.6				
ntersection Capacity Uti	lization	3	9.1%	ICI	Level	of Service	A
nalysis Period (min)			15		Fig. St. St. St. Add		

	•	-	←		-	1	
Movement	EBI	L EBT	WBT	WBR	SBL	SBR	
Lane Configurations		લ			k/	The second secon	
Sign Control		Free			Stop		
Grade		0%	0%		0%		
Volume (veh/h)		0 0	0	11	12		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Hourly flow rate (vph)	C	0 0	0	13	14	0	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	13				6	6	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	13				6	6	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF (s)	2.2				3.5	3.3	
p0 queue free %	100				99	100	
cM capacity (veh/h)	1599				1012	1073	
Direction, Lane #	EB 1	WB1	SB 1				
Volume Total	0	13	14				
Volume Left	0	0	14				
Volume Right	0	13	0				
SH	1700	1700	1012				
Volume to Capacity	0.00	0.01	0.01				
Queue Length 95th (ft)	0	0	1				
Control Delay (s)	0.0	0.0	8.6				
ane LOS			Α				
Approach Delay (s)	0.0	0.0	8.6				
Approach LOS			Α				
ntersection Summary							
verage Delay			4.5				
ntersection Capacity Uti Analysis Period (min)	lization		13.3% 15	ICI	U Level	of Service	e A

12: 'D' & Unser Blvd

Terry O. Brown, P.E. 12/26/2007

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NBT

WBL WBR 242

是是

Lane Configurations Volume (vph)

Protected Phases

Tum Type

Permitted Phases

Detector Phases

204

pm+ov

5.0 21.0 98.0 81.7% 4.0

Total Split (%)
Total Split (%)
Yellow Time (s)
All-Rad Time (s)

4.0 1.0 Lead

Lead/Lag Lead-Lag Optimize? Recall Mode

Act Effet Green (s) Actuated g/C Ratio

20.0 20.0 20.0

5.0 20.0

Minimum Initial (s)

95.6 0.80 0.27 4.4 4.4

Min 95.6 0.80 0.86 18.6 0.0

Min 36.1 0.30 0.58 36.5 36.5 36.5

Min 18.4 0.15 0.07 59.2 0.0 59.2

v/c Ratio

0.0

5.0

Control Delay Queue Delay Total Delay

HCM Signalized Intersection Capacity Analysis 12: 'D' & Unser Blvd

Terry O. Brown, P.E. 12/26/2007

Movement Well Welk Wel		-	1	—	•	٨	-
100 1800 1800 1800 1800 1800 1800 1800	Movement	WEL	WBR	NBT	NBR	188	S8T
1800 1900 1900 1900 1900 1900 0.31 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Lane Configurations	N.	R	#	*	×	***
3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
0.87 1.00 0.91 1.00 1.00 0.91 0.08 1.00 0.88 1.00 0.88 1.00 0.086 1.00 1.00 0.98 1.00 0.086 1.00 1.00 0.95 1.00 0.086 1.00 1.00 0.10 0.00 0.086 1.00 1.00 0.10 0.10 0.085 0.085 0.085 0.98 0.98 0.98 0.085 0.085 0.085 0.98 0.98 0.98 0.087 0.08 0.08 0.08 0.08 0.087 0.08 0.08 0.08 0.087 0.08 0.08 0.08 0.087 0.08 0.08 0.08 0.097 0.098 0.09 0.098 0.098 0.099 0.098 0.099	Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0
1.00 0.85 1.00 0.85 1.00 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.85 1.00 0.80 0.10 0.10 0.10 0.10 0.10 0.10	Lane Util. Factor	0.97	1.00	0.91	1.00	1.00	0.81
0.85 1.00 1.00 0.95 1.00 3400 1568 5036 1568 1752 5036 340 1568 5036 1568 176 5036 340 242 1613 327 204 1011 0.85 0.85 0.95 0.95 0.95 0.95 0.0 226 1698 344 215 1084 0 0 265 1698 223 215 1084 0 0 265 1698 223 215 1084 0 121 0 0 121 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 121 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	£	1.00	0.85	1.00	0.85	1.00	1.00
3400 1568 5036 1568 1752 5036 0.85 1.00 1.00 0.10 1.00 340 242 1613 327 204 1011 0.85 0.85 0.95 0.95 0.95 0.95 400 285 1698 324 215 1084 0 0 265 1698 223 215 1084 Pmr+ov Perm pm+pt 6 1 2 2 168 223 215 1084 Pmr 2 2 2 15 1084 D 400 285 1698 223 215 1084 D 5 2 0 0 121 0 0 1 2 0 0 120 0 1 2 0 0 120 0 1 2 0 0 120 0 1 2 0 0 0 120 0 1 2 0 0 0 0 1 2 0 0 0 0 0 1 3 0 3 0 3 0 3 0 3 0 1 4 0 3 2 1 0 1 5 0 4 0 0 3 2 1 1 5 0 4 0 0 3 2 1 1 5 0 4 0 0 3 2 1 2 0 6 5 0 5 0 2 0 10 0 0 0 0 2 0 10 0 0 0 0 0 0 1 1 0 0 10 0 0 0 1 2 0 10 0 0 0 0 1 2 0 0 10 0 0 0 1 3 0 0 0 0 0 0 1 4 0 0 1 0 0 0 1 5 0 4 0 0 0 0 1 5 0 6 0 0 1 5 0 6 0 0 1 5 0 6 0 0 1 5 0 6 0 0 1 5 0 6 0 0 1 5 0 6 0 0 1 5 0 6 0 0 1 5 0 6 0 0 1 5 0 0 0 1 5 0 0 0 1 5 0 0 0 1 5 0 0 0 1 5 0 0 0 1 5 0 0 0 1 5 0	Fit Protected	0.95	1.00	1.00	1.00	0.95	100
0.085 1.00 1.00 1.00 0.10 1.00 0.34 0.34 0.34 0.34 0.34 0.34 0.35 0.36 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.35	Satd. Flow (prot)	3400	1568	5036	1568	1752	5036
340 1568 5036 1568 176 5036 340 242 1613 327 204 1011 0.85 0.85 0.95 0.95 0.95 400 285 1698 334 215 1064 0 20 0 121 0 0 1 400 285 1698 223 215 1084 pm+ov Perm pm+pt 6 8 18.4 28.1 75.9 77.9 95.6 95.6 0.15 0.28 0.65 0.65 0.80 0.80 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.1 47.2 3269 1018 333 4012 0.0 521 472 3269 1018 333 4012 0.0 521 472 0.34 0.34 0.31 1.00 1.00 0.39 0.19 0.88 0.21 1.00 1.00 0.39 0.19 0.88 0.21 1.00 1.00 0.39 0.19 0.88 0.21 2.1 0.1 2.6 4.3 2.9 6.85 0.27 2.2 0.4 0.3 2.1 0.1 5.4 38.8 4.8 2.0 17.4 4.3 E D A A B A B A B B A B B B B B B B B B B	Fit Permitted	0.95	1.00	1.00	1.00	0.10	1.00
340 242 1613 327 204 1011 0.85 0.85 0.85 0.95 0.95 0.05 0.85 0.95 0.95 0.0 265 1698 344 215 1084 0 0 265 1698 223 215 1084 0 121 0 0 0 121 0 0 164 28-1 75-8 75-9 83-8 83-8 1 4 28-1 77-9 77-9 95-6 95-6 0.15 0.28 0.85 0.85 0.80 0.80 5.0 5.0 5.0 5.0 5.0 5.0 5.0 3.0 3.0 3.0 3.0 3.0 5.1 472 3269 1018 333 4012 00.12 0.07 0.34 0.14 c.0.44 0.77 0.56 0.52 0.22 0.65 0.27 0.70 0.39 0.19 0.89 1.35 0.71 0.50 0.39 0.19 0.89 1.35 0.71 0.50 0.39 0.19 0.89 1.35 0.72 0.07 0.34 0.3 2.1 0.1 1.00 1.00 0.39 0.19 0.89 1.35 0.74 0.35 0.45 0.47 4.3 55-4 38.8 4.8 2.0 17.4 4.3 55-4 38.8 4.8 2.0 17.4 4.3 55-8 38.8 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3 55-9 38.9 4.8 2.0 17.4 4.3	Satd. Flow (perm)	3400	1568	5036	1568	176	5036
0.85 0.85 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.9	Volume (vph)	340	242	1613	327	204	1011
100 286 1688 344 215 1084 0	Peak-hour factor, PHF	0.85	0.85	0.95	0.95	0.95	0.95
10 20 0 121 0 0 0 121 0 0 0 0 0 121 0 0 0 0	Adj. Flow (vph)	400	285	1698	344	215	1064
400 265 1698 223 215 1084 8	RTOR Reduction (vph)	0	20	0	121		
Pun+ov Perm pm+pt 6 16.4 28.1 75.8 75.9 83.8 83.8 18.4 33.1 77.9 77.9 95.6 95.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Lane Group Flow (vph)	400	265	1698	223	215	1064
16.4	Turn Type		W+Ov		Perm	pm+pt	
16.4 28.1 75.9 75.9 83.6 18.4 33.1 77.9 77.9 83.6 93.6 93.6 93.6 93.6 93.6 93.6 93.6 9	Protected Phases	8	-	7			9
16.4 29.1 75.8 75.9 93.8 93.6 16.4 33.1 77.9 77.9 95.6 95.6 16.4 33.1 77.9 77.9 95.6 95.6 16.6 16.6 16.0 16.0 16.0 16.0 16.0 16	Permitted Phases		60		2	9	
18.4 33.1 77.9 77.9 95.6 95.6 0.15 0.15 0.28 0.65 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.8	Actuated Green, G (s)	16.4	29.1	75.9	75.9	83.6	83.6
0.15 0.28 0.65 0.65 0.80 0.80 5.0 5.0 5.0 5.0 5.0 5.1 3.0 3.0 3.0 3.0 5.2 1 472 3269 1018 333 4012 00.12 0.07 0.34 0.08 0.21 0.10 0.10 0.39 0.19 0.88 1.35 6.7 1.5 0.4 0.3 2.1 0.1 55.4 38.8 4.8 2.0 17.4 4.3 E D A A B A 48.6 4.3 A B A 48.6 4.3 B A A 48.6 1.20 0.30 0.10 o.30 0.10 5.4 38.8 0.30 0.10 0.30 0.10 5.5 4 38.8 0.30 0.10 5.5 4 38.8 0.30 0.10 5.5 6 38.8 0.30 0.10 5.5 6 38.8 0.30 0.10 5.5 7 1.2 0.1 5.5 8 1.2 0.2 5.5 8 1.2 0.2 5.5	Effective Green, g (s)	18.4	33.1	77.9	77.9	92.6	95.6
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.2 3.0 3.0 3.0 3.0 5.2 472 3269 1018 333 4012 00.12 0.07 0.34 0.14 0.04 0.17 0.56 0.52 0.65 0.27 0.10 0.39 0.19 0.89 1.35 6.7 1.5 0.4 0.3 2.1 0.1 55.4 38.8 4.8 2.0 17.4 4.3 E D A A B A B A B A B A B A B A B A B B A B B A B B A B B A B B A B B A B B A B B B A B	Actuated g/C Ratio	0.15	0.28	0.65	0.65	0.80	0.80
3.0 3.0 3.0 3.0 3.0 521 472 2369 1018 333 4012 60.12 60.07 6.34 0.10 0.14 6.04 0.77 0.56 0.52 0.65 0.27 1.00 1.00 0.39 0.19 0.88 1.35 6.7 1.5 0.4 0.3 2.1 55.4 38.8 4.8 2.0 17.4 4.3 E	Clearance Time (s)	2.0	5.0	9.0	5.0	5.0	5.0
521 472 3269 1018 333 4012 00.12 60.07 0.34 0.08 0.21 0.17 0.56 0.52 0.22 0.66 0.27 48.7 37.2 1.1 8.6 17.5 3.1 1.00 1.00 0.39 0.19 0.08 1.35 E. D. A. B.	Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
00.12	Lane Grp Cap (vph)	521	472	3269	1018	333	4012
0.10 0.14 c0.44 48.7 37.2 11.1 8.6 17.3 3.1 1.00 1.00 0.39 0.19 0.89 1.35 6.7 1.5 0.4 0.3 2.1 0.1 55.4 38.8 4.8 2.0 17.4 4.3 E D A A B A 48.5 A 3.8 4.8 2.0 17.4 4.3 E D A A B A AB B A B B A B A B B B A B B A B B B B	wis Ratio Prot	00.12	20.00	0.34		0.08	0.21
0.77 0.56 0.52 0.22 0.65 0.27 1.00 1.00 0.39 0.19 0.88 1.35 6.7 1.5 0.4 0.3 2.1 0.1 55.4 38.8 4.8 2.0 17.4 4.3 E D A A B A 48.5 A 38 A 4.3 A B A 48.5 A A B A 48.5 A B A 48.5 A B A 6.5 A B A 6.5 B A A B A 6.5 B A 6.5 B A 6.5 A B A 6.5 B A 6.5 A B A A A B A A B A A A B A A A B A A A B A A A B A A A B A A A B A A A B A A B A A A A B A A A A A B A A A A B A A A A B A A A B A A A A B A A A A B A A A A B A A A A B A A A A B A	v/s Ratio Perm		0.10		0.14	44.00	
48.7 37.2 11.1 8.6 17.5 3.1 11.0 1.00 0.39 0.19 0.88 1.35 0.4 0.3 2.0 17.4 4.3 E D A A B A B A A B A B A B A B A B A B A	v/c Ratio	0.77	0.56	0.52	0.22	0.65	0.27
1.00 1.00 0.39 0.19 0.88 1.35 6.7 1.5 0.4 0.3 2.1 0.1 55.4 38.8 4.8 2.0 17.4 4.3 E D A B A B A B A B A B A B A B A B A B A	Uniform Delay, d1	48.7	37.2	11.1	8.6	17.5	3.1
6.7 1.5 0.4 0.3 2.1 0.1 55.4 38.8 4.8 2.0 17.4 4.3 E D A A B A 48.5 A 2.0 17.4 4.3 A 48.5 A A B A B	Progression Factor	1.00	1.00	0.39	0.19	0.88	1.36
55.4 38.8 4.8 2.0 17.4 4.3 E D A A B A 48.5 D A A B A 6.5 D A A B	Incremental Delay, d2	6.7	1.5	0.4	0.3	2.1	0.1
48.5 4.3 6.5 6.5 D A A B A A B. A B A A B. A	Delay (s)	55.4	38.8	4.8	2.0	17.4	43
48.5 4.3 6.5 A D A A A A Delay 12.6 HCM Level of Service (s) tilization 62.2% ICU Level of Service 15	Level of Service	ш	۵	∢	<	00	•
D A A Pelay 12.6 HCM Level of Service 15.0 Sum of lost time (s) tilization 62.2% ICU Level of Service 15.00 Sum of lost time (s) tilization 62.2% ICU Level of Service 15.00 Sum	Approach Delay (s)	48.5		4.3			6.5
Delay 12.6 HCM Level of Service (by ratio 0,65 Sum of lost time (s) (tilization 62.2% ICU Level of Service 15	Approach LOS	۵		4			×
Delay 12.6 HCM Level of Service lty ratio 0.65 (120.0 Sum of lost time (s) (tiszation 62.2% ICU Level of Service 15	Intersection Summary	STATE OF			SETTER!	STREET	PANAGORÍT CON SE
dization 62.2% ICU Level of Service	HCM Average Control De	slay		12.6	Ī	CM Leve	al of Service
(s) 120.0 Sum of lost time (s) tilization 62.2% ICU Level of Service 15	Actional Circle Leading	2000		00'0	2000		
15	Intersection Capacity Utili	ization	9	120.0	യ ⊼	um of log	st time (s)
THE THE DAY OF THE PARTY OF THE	Analysis Period (min)			15			

2010 PM Peak BUILD Conditions - MITIGATED

D:ATOBENPROJECTS'Heritage_Neighborhood_Marketplace_Ladera_Unser\CaseF2010PB_Mit.sy7

Intersection LOS: B ICU Level of Service B

Intersection Signal Delay, 12.8 Intersection Capacity Utilization 62.2% Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Natural Cycle: 60

Analysis Period (min) 15

12: 'D' & Unser Blvd

Splits and Phases:

Offset: 114 (95%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Actuated Cycle Length: 120

Intersection Summan

Approach Delay

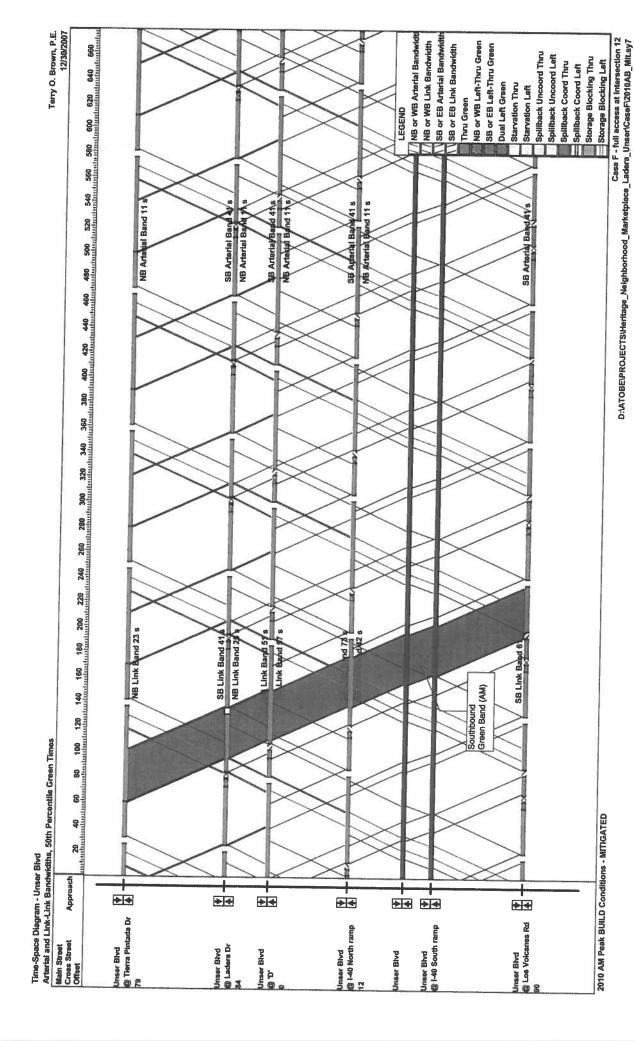
507

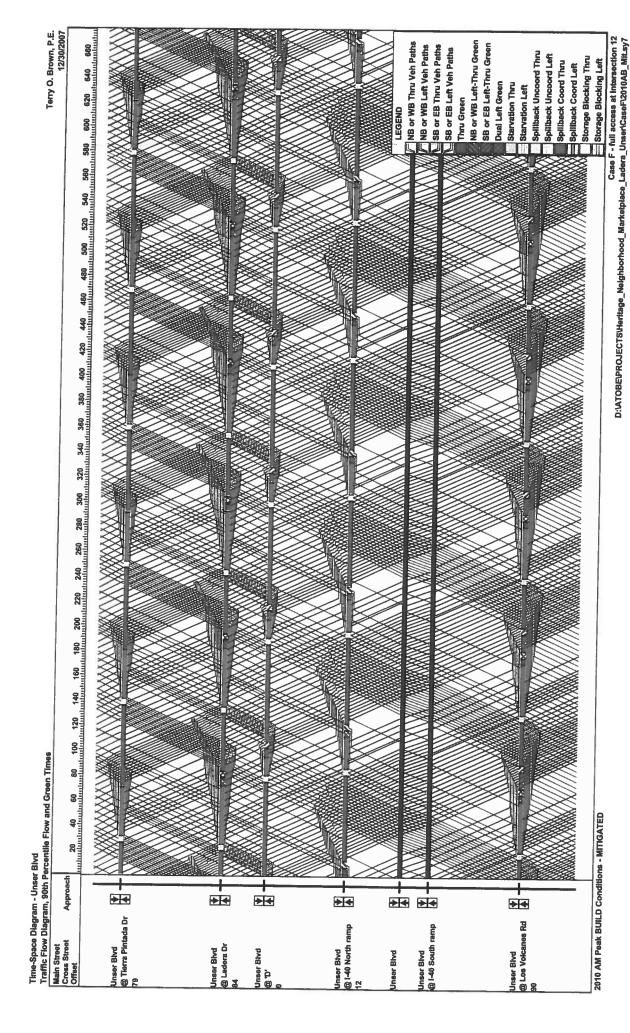
Approach LOS

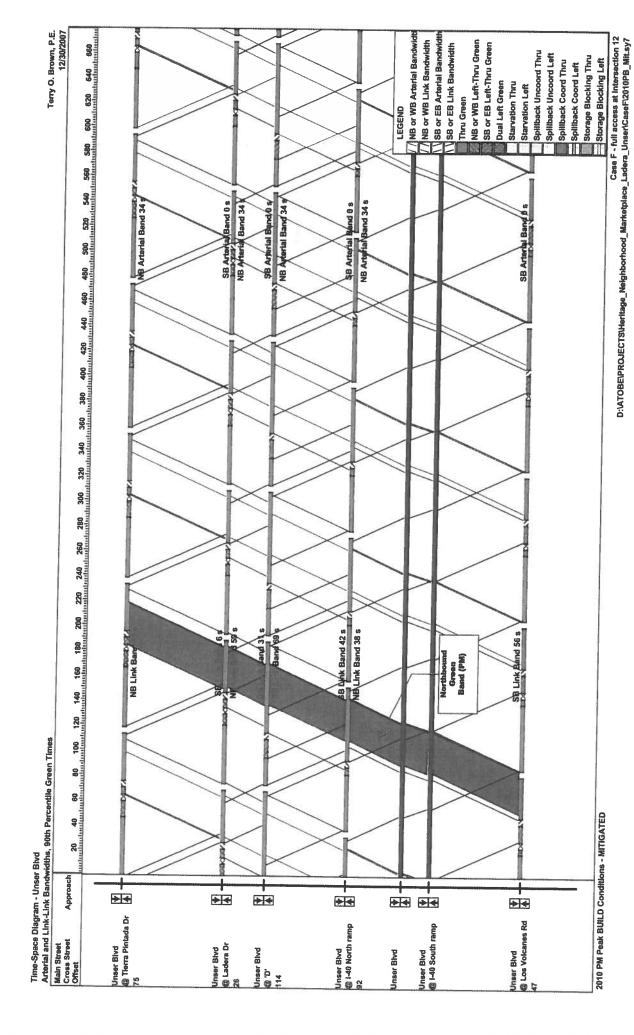
Cycle Length: 120

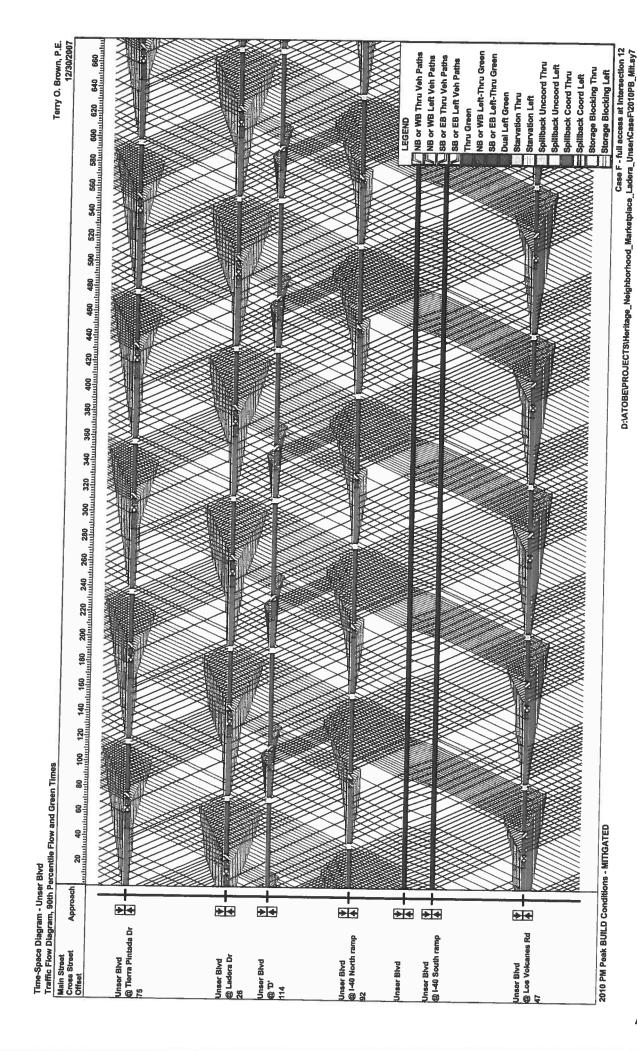
2010 PM Peak BUILD Conditions - MITIGATED

D:ATOBENPROJECTS'Heritage_Neighborhood_Marketplace_Ladera_Unser/CaseF\2010PB_Mit.sy7









Analysis of

2010 BUILD Conditions

CASE "L"
(Right-in, Right-out, Left-in Access Driveway on Unser Blvd.)

Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2010) - 100% Development

Case L - RI, RO, LI only at Intersection 12

INTERSECTION:

Summary

Ladera Dr / Unser Blvd
(2)
3.0% Truck
Existing (2007)
2010 (NO BUILD - A.M.)

2010 (BUILD - A.M.)

Existing (2007)

2010 (NO BUILD - P.M.)
2010 (BUILD - P.M.)
Ladora Dr / Market Dd

3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007)
2010 (NO BUILD - P.M.)
2010 (BUILD - P.M.)

Ladera Dr / Driveway 'A' 3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

Driveway 'B' / Market Rd
(10)
3.0% Truck
Existing (2007)
2010 (NO BUILD - A.M.)
2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

	0.87			0.79			0.85			0.89	PHF
East	ound (Lade	ra Dr)	Westi	oound (Lade	ra Dr)	Northbe	ound (Unse	r Blvd)	Southbound (Unser Blvd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
175	251	365	317	105	44	48	429	224	45	906	58
199	446	557	542	186	123	134	653	376	99	1,279	105
199	460	597	686	196	140	163	704	376	125	1,355	105
	0.93			0.93			0.95		,,,,,	0.96	PHF
	ound (Lade		Westb	ound (Lade	ra Dr)	Northbo	ound (Unse	Blvd)	Southb	ound (Unse	
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
140	182	138	281	264	107	288	860	372	94	547	184
192	319	322	594	480	249	560	1,433	708	263	1.087	333
192	334	369	934	498	270	607	1.524	700	200	4.400	200

	0.88			0.79			0.86			0.85	PHF	
Eastb	ound (Lade	ra Dr)	Westbe	ound (Lade	ra Dr)	Northb	ound (Marke	t Rd)	Southb	Southbound (Market R		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	425	28	14	365	0	113	0	72	ا٥	0	0	
0	425	28	15	398	0	113	0	72	0	0		
0	489	34	201	398	0	284	0	136	0	- 0	U	
	0.93			0.80	- 0	204	0 00	130	U	7	0	

		0.93			0.80			0.88			0.85	PHF
	Eastb	ound (Lade	ra Dr)	Westh	ound (Lade	ra Dr)	North	ound (Mari	ket Rd)	Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	513	156	48	463	0	83	0	36	0	0	Λ
	0	559	170	52	505	0	83	0	36	0	0	0
i	0	669	176	260	505	0	388	0	146	0	1	0

_		0.79		_	0.79			0.85			0.85 PHI			
L		ound (Lade		West	ound (Lade	ra Dr)	Northb	ound (Drive	way 'A')	Southb	Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
L	0	520	0	0	466	0	0	0	0	0	n	,g		
	0	520	0	0	466	0	0	0	0	0	0	0		
	0	526	33	0	637	0	0	0	65	0	0	0		

	0.93 0.93						0.85		0.85 PHE			
Eastb	ound (Lade	ra Dr)	Westh	ound (Lade	ra Dr)	Northb	ound (Drive	way 'A')	Southh	PHF way 'A')		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	648	0	0	652	0	0	0	0	0	0	0	
0	706	0	0	711	0	0	0	0		0	0	
0	664	85	0	1,049	0	0	0	163	0	0	0	

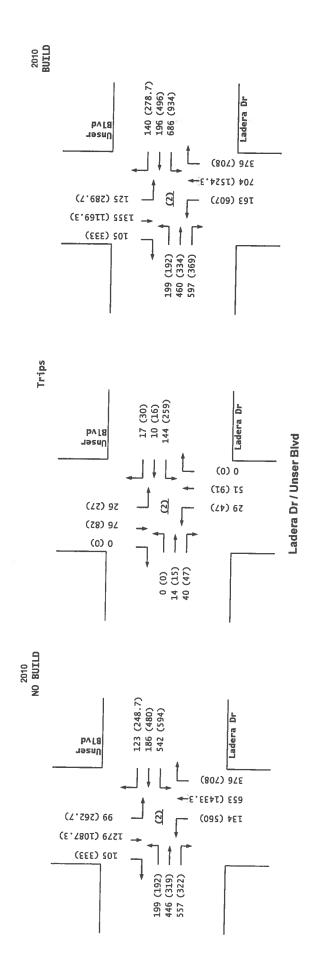
	0.85			0.85			0.86			0.86	PHF
	Eastbound (Driveway 'B')			Westbound (Driveway 'B')			ound (Mark	et Rd)	Southbound (Market Rd)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	185	0	0	42	0
0	0	0	0	0	0	0	185	0	0	42	0
231	0	3	0	0	0	5	189	0	0	48	187
	0.85	<u> </u>		0.85			0.88			0.00	107

7.85	1000		0.85			0.88			0.88	PHF	
		Westbo	und (Drivev	vay 'B')	North	ound (Mark	(et Rd)	Southbound (Market Rd)			
hru	Right	Left	Thru	Right	Left	Thru	Right	Left		Right	
0	0	0	0	0	0	119	0	0	204	0	
0	0	0	0	0	0	119	0	0	204	0	
0	5	0	0	0	6	126	0	0	210	257	
	(Drivew Thru 0 0 0	(Driveway 'B')		(Driveway 'B') Westbound (Drivey	(Driveway 'B') Westbound (Driveway 'B')	(Driveway 'B') Westbound (Driveway 'B') North	(Driveway 'B') Westbound (Driveway 'B') Northbound (Mark Thru Right Left Thru Right Left Thru 119 0 0 0 0 0 0 119 0 0 0 0 0 119	(Driveway 'B') Westbound (Driveway 'B') Northbound (Market Rd)	(Driveway 'B') Westbound (Driveway 'B') Northbound (Market Rd) Southbound Southbound (Market Rd) Control Co	(Driveway 'B') Westbound (Driveway 'B') Northbound (Market Rd) Southbound (Market Rd) Control Contr	

Heritage Neighborhood Center (Ladera Dr / Unser Blvd) Projected Turning Movements Worksheet Ladera Dr / Unser Blvd

					Dr / Un		i Kalledt					
INTERRECTION.								•				
INTERSECTION: E-W Street: N-S Street:	Ladera Di Unser Bly			(2)								
Year of Existing Counts 200		4										
Implementation Year 201												
Growth Rate		0.68% ound (Lade	era Dr)	West	8,77% bound (Lad	era Dri	North	4.58% bound (Uns	or Rivell	Routh	3.66% bound (Unse	ar Rhaft
Friedle - Mahaman	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes Background Traffic Growth	175	251 5	385		105	44	48	429	224	45	906	58
Subtotal	179	256	372	<u>64</u> 381	21 126	53	55	59 488	3 <u>1</u> 255	5	100	6
I-40 / Unser Development	0	0	43		0	0	32	32	121	50	1,006	64
Ladera Business Park	0	0	0		0	3	0	28	0	5	47	0
Previous Development from below	20	190	142	Q	60	67	47	105	Q		184	41
Subtotal (NO BUILD - A.M.)	199	446	557	542	186	123	134	653	376	99	1,279	105
Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exting)	0.00%	0.00%	7.59%	0.00% 36.91%	0.00% 2.53%	0.00%	0.00%	0.00%	0.00%	4.37%	13.11%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.90%	2.69%	0.00%	0.00%	0.00%	7,59%	0.00%	0.00%	0.00% 5.33%	0.00%	0.00%
Percent Office Trips Generated (Exiting) Total Trips Generated	0.00%	0.00%	0.00%	48.95%	0.90%	5.33%	2.69%	16.00%	0.00%	0.00%	0.00%	0.00%
Total AM Peak Hour BUILD Volume		480	597	686	196	17 140	29 163	704	0 376	26 125	1,355	105
						140	100	100	0/0]	120	1,000	100
	Footh	3.98%		101 41	2.50%			4.15%			3.12%	
	Left	Thru	Right	Left	Thru	ra Dr) Right	Northb Left	ound (Unse Thru	Right	Left	ound (Unse Thru	
Existing Volumes	140	182	138	281	264	107	288	860	372	94	547	Right 184
Background Traffic Growth	17	22	16	21	20	8	36	107	46	9	51	17
Subtotel I-40 / Unser Development	157	204	154	302	284	115	324	967	418	103	598	201
Ladera Business Park	0	0	78	292	0	0	77	77	290	0	77	0
Previous Development from below	35	115	90	0		14	0	123	0	23	204	0
Subtotal (NO BUILD - P.M.)	192	319	322	594	196 480	120 249	159 560	266 1,433	708	137 263	208	132
Percent Commercial Trips Generated(Entering)	0.00%	2.53%	7.59%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.37%	1,087	0.00%
Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering)	0.00%	0.00%	0.00%	36.91%	2.53%	4.37%	7.59%	13.11%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated (Exiting)	0.00%	0.00%	2.69% 0.00%	0.00% 48.95%	0.00%	0.00% 5.33%	2.69%	0.00%	0.00%	5.33%	0.00%	0.00%
Total Trips Generated Subtotal PM Pk Hr. BUILD Volumes	0	15	47	259	16	30	47	91	0	27	82	0.00%
Pass-by Trip Adjustments	192	334	369	853	496	279	607	1,524	708	290	1,169	333
Total PM Peak Hour BUILD Volumes	192	334	369	934	496	279	607	1,524	708	290	1,169	333
								1,001		2001	1,100	
Number of Commercial Trips Generated	Entering 499	Exiting 378 /	A.M.	100W C	D							
	602		P.M.	100% Com	mercial De	avalopmer	it					
Number of Office Trips Generated	68 20		N.M. 1 P.M.	100% Offic	e Develop	ment						
		90 F	. TA1*									
Previous Developments - AM Peak Hour Volu		und (Leders	54	101 - 44								
	Left	Thru	Right	Left	Und (Leders		Left	und (Unser	Right	Bouthbe	und (Unser	
Watershed Residential & Retail	0											
Storm Cloud Dev. w/ others		78	0	0	24	Right 0	0			Left	Thru	Right
	0	78 112	142	0				6	0		Thru 17	0
98th / Unser Development	0 20	112 0	142 0		24	0	0	6	0	Left 0	Thru 17 131	0 28
98th / Unser Development Subtotal	0	112	142	0	24 36	0	0 47	6	0	Left 0	Thru 17	0
Subtotal	0 20 20	112 0	142 0	0 Q	24 36 0	0 0 <u>67</u>	0 47 Q	6 44 55	0 0 0	0 0 44	17 131 36	0 28 13
	0 20 20 20	112 0 190	142 0 142	0 Q 0	24 36 Q 60	0 0 67 67	0 47 Q 47	6 44 55 105 105 and (Unser I	0 0 <u>Q</u> 0	0 0 44 44	17 131 36	0 28 13 41
Subtotal Previous Developments - PM Peak Hour Volu	0 20 20 20 mes Eastbea	112 Q 190	142 0 142 0r) Right	0 Q 0 Westber	24 36 Q 60	0 0 67 67	0 47 Q 47 A7 Northber Left	6 44 55 105 105 107 107 107 107 107 107 107 107 107 107	0 0 0 0 0	Ceft O O 44 44 Southber Left	17 131 36 184 184 17 184	0 28 13 41 8hvd) Right
Subtotal Previous Developments - PM Peak Hour Yolu Watershed Residential & Retail	20 20 20 770s Eastbook	112 0 190 und (Ladera Thru	142 0 142 0r) Right	0 Q O O O O O O O O O O O O O O O O O O	24 36 0 60 und (Ledera Thru	0 67 67 0 0 0 7 0 7	0 47 0 47 47 Morthber Left 0	6 44 55 105 105 107 107 109 109 109 109 109 109 109 109 109 109	0 0 0 0 0 0 81vd) Right	0 0 44 44 44 Southber Left 0	17 131 36 184 und (Unser I Thru 12	0 28 13 41 8Nd) Right
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others	0 20 20 20 7785 Eastber Left 0	112 0 190 190 Ind (Ladera Thru 44 71	142 0 142 0r) Right 0 90	0 0 0 Weather Left 0 0	24 36 0 60 118 118	0 67 67 67 Plight 0	0 47 0 47 Northber Left 0 159	6 44 55 105 105 107 109 149 149	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southbor Left 0 0	17 131 36 184 und (Unser 1 Thru 12 83	0 28 13 41 8Md) Right 0
Subtotal Previous Developments - PM Peak Hour Yolu Watershed Residential & Retail	20 20 20 770s Eastbook	112 0 190 und (Ladera Thru	142 0 142 0r) Right	0 Q O O O O O O O O O O O O O O O O O O	24 36 Q 60 Unid (Ledera Thru 78 118 Q	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 55 105 105 107 107 109 149 98	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	17 131 36 184 184 112 83 113 113 115	0 28 13 41 41 8 North Color of the color of
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal	0 20 20 20 mes Eastber Left 0 0 35	112 0 190 190 Ind (Ladera Thru 44 71 0	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 118 118	0 67 67 67 Plight 0	0 47 0 47 Northber Left 0 159	6 44 55 105 105 107 109 149 149	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southbor Left 0 0	17 131 36 184 und (Unser 1 Thru 12 83	0 28 13 41 8Md) Right 0
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development	0 20 20 20 mes Eastber Left 0 0 35	112 0 190 190 Ind (Ladera Thru 44 71 0	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 Q 60 Unid (Ledera Thru 78 118 Q	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 55 105 105 107 107 109 149 98	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	17 131 36 184 184 112 83 113 113 115	0 28 13 41 41 8 North Color of the color of
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count	0 20 20 20 mes Eastber Left 0 0 35	112 0 190 190 und (Ledera Thru 44 71 0 115	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 60 Thru 78 118 0 196	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 55 105 105 1105 1105 1105 1105 1105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	17 131 36 184 184 194 195 19	0 28 13 41 41 8 North Color of the color of
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume	0 20 20 20 mes Eastber Left 0 0 35	112 0 190 190 Ind (Ladera Thru 44 71 0	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 60 Thru 78 118 0 196	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 55 105 105 109 149 98 266 1701	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	Thru 17 131 36 184 1	0 28 13 41 41 8 North Color of the color of
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume Based on MRCOG Model (2030 Data Set)	0 20 20 20 mes Eastber Left 0 0 35	112 0 190 190 190 Thru 44 71 0 115	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 wind (Ladera Thru 78 118 0 196	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 555 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	Thru 17 131 36 184 und (Unser) Thru 12 83 113 208 1,009 825	0 28 13 41 41 8 North Color of the color of
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume	0 20 20 20 mes Eastber Left 0 0 35	112 0 190 190 190 190 190 190 190	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 60 Thru 78 118 0 196 468 652	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 55 105 105 109 149 98 266 11,520 1440	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	Thru 17 131 36 184 und (Unser) Thru 12 83 113 208 1,009 825 1859	0 28 13 41 41 8 North Color of the color of
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Treffic Count 2007 AM Link Volume 2007 PM Link Volume Based on MRCOG Model (2030 Data Set) 2030 AM Link Volume 2030 PM Link Volume	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 wind (Ladera Thru 78 118 0 196	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 555 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	Thru 17 131 36 184 und (Unser) Thru 12 83 113 208 1,009 825	0 28 13 41 8Nd) Right 0 91
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume Based on MRCOG Model (2030 Data Set) 2030 PM Link Volume 2030 PM Link Volume Crowth Rate to Apply to Existing Counts to Match 2007-2030 AM Growth Rates	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 60 Thru 78 118 0 196 468 652 1192 1027	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	Thru 17 131 36 184 und (Unser I Thru 12 83 113 208 1,009 825 1859 1417	0 28 13 41 8Nd) Right 0 91
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume Based on MRCOG Model (2030 Data Set) 2030 PM Link Volume County PM Link Volume Coun	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 60 Thru 78 118 0 196 468 652	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 55 105 105 109 149 98 266 11,520 1440	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	Thru 17 131 36 184 und (Unser) Thru 12 83 113 208 1,009 825 1859	0 28 13 41 8Nd) Right 0 91
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Pased on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume Pased on MRCOG Model (2030 Data Set) 2030 AM Link Volume 2030 AM Link Volume Growth Rate to Apply to Existing Counts to Match 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 44 71 0 115 791 460 914 881 asts 0.68%	142 0 142 0r) Right 0 90	0 0 0 0 Westbe- Left 0 0	24 36 0 60 60 118 118 0 196 466 652 1192 1027	0 67 67 67 Pight 0 0	0 47 Q 47 Northber Left 0 159 Q	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 44 44 44 Southber Left 0 0 137	Thru 17 131 36 184 Ind (Unser! Thru 12 83 113 208 1,009 825 1859 1417	0 28 13 41 8Nd) Right 0 91
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2009 M Link Volume 2030 PM Link Volume 2030 PM Link Volume 2030 PM Link Volume Passed on Match 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates Pess-by Trip Calculations:	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 44 71 0 115 791 460 914 881 asts 0.68%	142 0 142 142 Dr) Right 0 90 90 90	0 Q 0 Westber Left 0 0 0	24 36 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 0 67 67	0 47 Q 47 Worthber Left 0 159 Q 159	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Left	Thru 17 17 131 36 184 Ind (Unser) Thru 12 83 113 208 1,009 825 1859 1417 3.86% 3.12%	0 28 133 41 8hrd Flight 0 91 41 132
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Pased on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2007-2030 AM Growth Retes 2007-2030 AM Growth Retes 2007-2030 PM Growth Retes 2007-2030 PM Growth Retes Pess-by Trip Calculations: AM Pass-by Trips Percent Entering	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190	142 0 142 142 Dr) Right 0 90 90 90	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 36 0 60 10 60 10 60 10 60 10 60 10 60 6	0 0 67 67 67 67 67 67 67 67 67 67 67 67 67	0 47 Q 47 A7	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Left	Thru 17 131 36 184 und (Unser i Thru 12 83 113 208 1,009 825 1869 1417 3.66% 3.12%	0 28 133 41 8hrd Flight 0 91 41 132
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2030 AM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to Match 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates Pass-by Trip Calculations: AM Pass-by Trips Percent Extend Percent Extend Percent Extend Percent Extend	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190 190 190 1	142 0 142 142 Dr) Right 0 90 0 90 90 90	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 36 0 0 0 0 0 0 0 0 0	0 0 0 67 67 67 67 67 67 67 67 67 67 67 67 67	0 47 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Left	17 131 36 184 184 197 197 197 197 197 197 197 197 197 197	0 28 13 41 8hrd 0 91 41 132
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2030 PM State Set) 2031 PM Set	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190 190 190 1	142 0 142 142 Dr) Right 0 90 90 90 90 90	0 0 0 0 0 0 0 0 0 0	24 36 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 47 Q 47 Northbert 159 Q 159 159 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Left	Thru 17 17 131 36 184 18	0 28 133 41 41 8hvd) 0 91 41 132
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2030 AM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to Match 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates Pass-by Trip Calculations: AM Pass-by Trips Percent Extend Percent Extend Percent Extend Percent Extend	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190	142 0 142 142 Dri Right 0 90 90 90 90 90	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	24 36 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 0 67 67 67 67 67 67 67 67 67 67 67 67 67	0 47 Q 47 A7	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Left	17 17 131 36 184	0 28 13 141 151 151 151 151 151 151 151 151 151
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to Match 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates Percent Entering Volume Entering Percent Exiting Volume Exiting Volume Exiting Not AM Pass-by Trips PM Pass-by Trips PM Pass-by Trips PM Pass-by Trips	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190 190 190 1	142 0 142 142 142 142 142 142 142 142 142 142	Westbour	24 36 9 9 9 9 9 9 9 9 9	0 0 0 67	O 47 O 17 O	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0	Left	Thru 17 17 131 36 184 18	0 28 133 41 8hrd Fight 0 91 41 132
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Trmffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2009 PM Link Volume 2010 PM Counts to Match 2007-2030 PM Growth Retes Pass-by Trips Percent Entering Volume Entering Percent Entering Volume Entering Volume Entering Volume Entering Volume Entering Volume Entering Volume Entering	0 20 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190 190 190 1	142 0 142 142 142 Or) Right 0 90 90 90 90 90 90 90 90 90 90 90 90 9	Westbour O O O O O O O O O	24 36 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0 0 0 67 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	O 47 Q 47 Morthbour 159 159 159 160	6 44 44 55 5 105 105 105 105 105 105 105 105 10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Left	17 17 131 36 184	0 28 13 141 151 151 151 151 151 151 151 151 151
Subtotal Previous Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2009 PM Link Volume 2030 PM Link Volume 2030 PM Link Volume Growth Rates 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Serving Forecast Entering Volume Entering Volume Entering Percent Exiting Not AM Pass-by Trips PM Pass-by Trips PM Pass-by Trips Percent Exiting Volume Entering Volume Entering Volume Entering Percent Exiting Percent Exiting Volume Entering Volume Entering Percent Exiting	20 20 20 20 20 20 20 20 20 20 20 20 20 2	112 0 190 190 190 190 190 190 190 190 190 1	142	Westbour O O O O O O O O O	24 36 9 60 9 60 118 9 196	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Northboule	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Left	17 17 131 35 184	0 28 13 141 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume Based on MRCOG Model (2030 Data Set) 2030 PM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to Match 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates Pass-by Trips Percent Entering Volume Entering Net AM Pass-by Trips Percent Entering Net AM Pass-by Trips Percent Entering Volume Entering Volume Entering Volume Entering Volume Entering Percent Entering Volume Entering Volume Entering Percent Entering Volume Entering Percent Entering Volume Entering Percent Entering Volume Entering Percent Entering Percent Entering Volume Entering Percent Entering Percent Entering Volume Entering	200 20 20 20 20 20 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190 190 190 1	142 0 142 142 Dr) Right 0 90 90 90 90 90 90 90 90 90 90 90 90 90	Westber	24 36 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Northbour Nort	6 44 55 10	0 0 0 0 0 0 0 0 0 0	Left	Thru 17 131 36 184 1	0 28 133 41
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Pased on 2007 Traffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2030 AM Link Volume 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2070 PM Link Volume 2030 PM Link Volume 2007-2030 PM Growth Rates 2007-2030	0 20 20 20 20 20 20 20	112 0 190 190 190 190 190 190 190 190 190 1	142 0 142 142 142 Or) Right 0 90 90 90 90 90 90 90 90 90 0 0 0 0 0	Westbour O O O O O O O O O	24 36 9 60 9 60 118 9 196	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Northboulder	6 44 55 105 105 105 105 105 105 105 105 105	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Left	Thru	0 28 13 141 151 151 151 151 151 151 151 151 151
Subtotal Pravious Developments - PM Peak Hour Volu Watershed Residential & Retail Storm Cloud Dev. w/ others 98th / Unser Development Subtotal MRCOG Forecast Volumes Worksheet Based on 2007 Tmffic Count 2007 AM Link Volume 2007 PM Link Volume 2007 PM Link Volume 2009 PM Link Volume 2010 PM Link Volume 2010 PM Link Volume 2010 PM Link Volume Passed on MRCOG Model (2010 Data Set) 2010 PM Link Volume Passed on MRCOG Model (2010 Data Set) 2010 PM Link Volume 201	20 20 20 20 20 20 20 20 20 20 20 20 20 2	112 0 190 190 190 190 190 190 190 190 190 1	142 0 142 142 142 142 142 142 142 142 142 142	Westber	24 36 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Northbour Nort	6 44 55 10	0 0 0 0 0 0 0 0 0 0	Left	Thru 17 131 36 184 1	0 28 133 41

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Projected Turning Movements Worksheet

(7)

Ladera Dr / Market Rd

INTERSECTION:

E-W Street: Ladera Dr

N-S Street: Market Rd

Year of Existing Counts Implementation Year

2007

2010

Growth Rates

Existing Volumes

Background Traffic Growth

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

Total Trips Generated

Total AM Peak Hour BUILD Volumes

s ,		0.00%			3.00%			0.00%			0.00%	
- [ound (Lade		West	oound (Lade	ra Dr)	North	oound (Mark	et Rd)	South	bound (Mari	cet Rd)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
-	0	425	28	14	365	0	113	0	72	0	0	0
	0	0	0	1	<u>33</u>	0	Q	Q	0	Q	0	0
	0	425	28	15	398	0	113	0	72	0	0	0
L	0.00%	0.00%	1.00%	33.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.00%
	0.08%	16.75%	0.00%	0.00%	0.00%	0.00%	43.81%	0.07%	16.76%	0.00%	0.00%	0.00%
L	0.00%	0.00%	1.00%	27.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%
1	0.02%	13.79%	0.00%	0.00%	0.00%	0.00%	53.18%	0.02%	13.78%	0.00%	0.00%	0.00%
L	0	64	6	186	0	0	171	0	64	0	1	0.55%
8	0	489	34	201	398	. 0	284	0	136	0	1	0

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

		3.00%			3.00%			0.00%			0.00%		
	Easti	ound (Lade	ra Dr)	West	bound (Lade	ra Dr)	North	bound (Mark	et Rd)	South	bound (Mari	ret Rd)	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
olumes .	0	513	156	48	463	0	83	0	36	0	0	0	
nd Traffic Growth	0	46	14	4	42	0	0	0	0	0	0	0	
Subtotal (NO BUILD - P.M.)	0	559	170	52	505	0	83	0	36	0	0		
nt Commercial Trips Generated(Entering)	0.00%	0.00%	1.00%	33.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.00%	
nt Commercial Trips Generated(Exiting)	0.08%	16.75%	0.00%	0.00%	0.00%	0.00%	43.81%	0.07%	16,76%	0.00%	0.00%	0.00%	
cent Office Trips Generated(Entering)	0.00%	0.00%	1.00%	27.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%	
rcent Office Trips Generaled(Exiting)	0.02%	13.79%	0.00%	0.00%	0.00%	0.00%	53.18%	0.02%	13.78%	0.00%	0.00%	0.00%	
s Generated	0	110	6	208	0	0	305	0	110	0	1	n	
Total PM Peak Hour BUILD Volumes	0	669	176	260	505	0	388	0	146	0	1	0	

Number of Commercial Trips Generated

Entering Exiting 499 A.M. 602 P.M. 68 9

100% Commercial Development

Number of Office Trips Generated

A.M. P.M. 20 96

100% Office Development

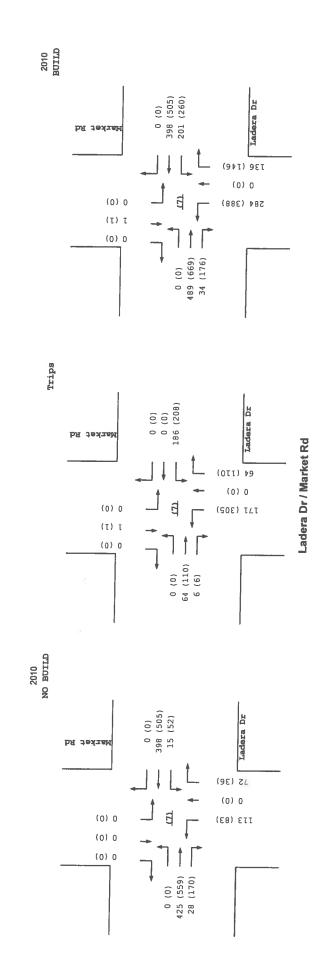
2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

i	Easth	ound (Lade	ra Dr)	West	ound (Lade	ra Dr)	North	oound (Marl	et Rd)	South	ound (Mari	(et Rd)
-	0	425	28	14	365	0	113	0	72	0	0	D
	0	513	156	48	463	0	83	0	36	0	Ō	0

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	453	379	185	0
2007 PM Link Volume	669	511	119	0
Based on MRCOG Model (2030 Data Set)				·
2005 AM Link Volume	355	355	0	0
2005 PM Link Volume	261	261	0	0
2030 AM Link Volume	452	1202	30	0
2030 PM Link Volume	1062	1042	47	0
Growth Rate to Apply to Existing Counts to Match 2	030 Forecasts			
2007-2030 AM Growth Rates	-0.01%	9.44%	-3.64%	#DIV/O!
2007-2030 PM Growth Rates	2.55%	4.52%	-2.63%	#DIV/01
Growth Rate to Apply to 2005 Model Volumes to Ma	atch 2030 Forecasts			
2005-2030 AM Growth Rates	1.09%	9.54%	#DIV/01	#DIV/0I
2005-2030 PM Growth Rates	12.28%	11.97%	#DIV/0!	#DIV/0I

A - 53



Projected Turning Movements Worksheet

Ladera Dr / Driveway 'A'

INTERSECTION:

E-W Street: Ladera Dr

Driveway 'A'

(9)

Year of Existing Counts

N-S Street: 2007

2010

Implementation Year

Growth Rates 0.00% 0.00% 0.00% 0.00%

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - A.M.) Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) **Total Trips Generated**

Total AM Peak Hour BUILD Volumes

	Easti	ound (Lade	era Dri	West	bound (Lade	nen Del	Blanthh	array of O'Dahara		0	1.007	
- 1							MOLITION	ound (Drive	WBY A)	Southb	ound (Drive	way 'A')
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	520	0	0	466	0	0	0	0	0	0	0
	0	Q	<u>Q</u>	Q	0	0	Q	0	0	0	0	0
	0	520	0	0	466	0	0	0	0	0	0	
	0.00%	1.00%	5.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1	0.00%	0.00%	0.00%	0.00%	43.81%	0.00%	0.00%	0.00%	16.83%	0.00%	0.00%	0.00%
1	0.00%	1.00%	5.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1	0.00%	0.00%	0.00%	0.00%	53.18%	0.00%	0.00%	0.00%	13.81%	0.00%	0.00%	0.00%
ŀ	0	6	33	0	171	0	0	0	65	0	0	0
\$	0	526	33	0	637	0	. 0	0	65	0	0	0

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated Subtotal PM Pk Hr. BUILD Volumes Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volumes

		3.00%			3.00%			0.00%			0.00%	
		ound (Lade		West	bound (Lade	era Dr)	Northbo	ound (Drive	Way 'A')	Southb	ound (Drive	L'A' vaw
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	648	0	0	652	0	0	0	0	0	n	0
	<u>0</u>	58	0	0	<u>59</u>	0	0	0	0	0	0	0
	0	706	0	0	711	0	0	0	0	0	0	0
-	0.00%	1.00%	5.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
-	0.00%	0.00%	0.00%	0.00%	43.81%	0.00%	0.00%	0.00%	16.83%	0.00%	0.00%	0.00%
	0.00%	1.00%	5.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ļ	0.00%	0.00%	0.00%	0.00%	53.18%	0.00%	0.00%	0.00%	13.81%	0.00%	0.00%	0.00%
	0	6	37	0	305	0	0	Ö	111	0.0078	0.00%	0.00%
1	0	712	37	0	1,016	0	0	0	111	0	0	0
	0	-48	48	0.	33	0	0	0	52	o	0	0
8	0	664	85	. 0	1.049	0	0	0	163	n	0	0

Number of Commercial Trips Generated

Entering Exiting 499 A.M. P.M. 378 602 580

100% Commercial Development

Number of Office Trips Generated

A:M: P.M. 20 96

100% Office Development

2007	АМ	Peak	Hr.	Volumes Volumes	ŀ
2007	PM	Peak	Hr.	Volumes	l

	Eastbo	ound (Lader	a Dr)	Westb	ound (Lade	ra Dr)	Northbo	und (Drive	Way 'A')	Southb	ound (Drive	FA ¹ versu
3	0	520	0	0	466	0	0	0	0	0	0	0
i	0	648	0	0	652	0	0	0	0	0	0	0

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	520	466	0	0
2007 PM Link Volume	648	652	n	_
Based on MRCOG Model (2030 Data Set)		551	· ·	0
2005 AM Link Volume	370	327	1248	1049
2005 PM Link Volume	313	1024		
		1024	1058	1246
2030 AM Link Volume	1468	848	1609	700
2030 PM Link Volume	923			777
The state of the s	323	1753	1389	1534
Growth Rate to Apply to Existing Counts to Match 20	30 Forecasts			
2007-2030 AM Growth Rates	7.93%	3.56%	#DIV/01	#DIS/INI

7.93% 3.56% #DIV/0! #DIV/01 2007-2030 PM Growth Rates 1.85% 7.34% #DIV/0! #DIV/01 Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 11.87% 6.37% 1.16% -1.04% 2005-2030 PM Growth Rates

2005-2030 PM Growth Rates		7.80%	6		2.85%			1.25%		
Pass-by Trip Calculations:								-		_
PM Pass-by Trips	Eastt	ound (Lad	era Dr)	West	ound (Lade	ra Dri	Northbi	ound (Drive	way 'A')	Т
Percent Entering	0.00%	-18.00%	18.00%	0.00%	-18.00%	0.00%	0.00%	0.00%	0.00%	t
Volume Entering	0	-48	48	0	-48	0	0.0075	0.0070	0.0070	H
Percent Exiting	0.00%	0.00%	0.00%	0.00%	28,00%	0.00%	0.00%	0.00%	18.00%	H
Volume Exiting	0	0	0	0	81	0.0070	0.0070	0.0078		⊦
Net PM Passby Trips	0	-48	48	0	33	0	0		52	L
	Enterina	Exitina		•	33	U	0	0	52	
Pass-by Trips	0	-	AM							

290 PM

267

0.92%

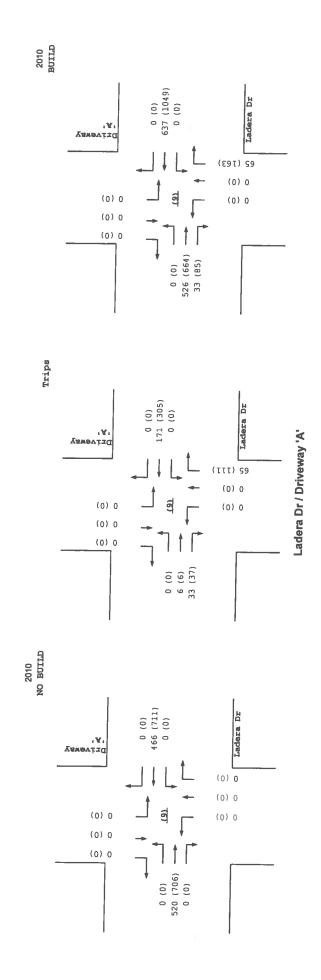
Southbound (Driveway 'A') 0.00% | 0.00% |

0.00%

0.00%

0.00%

0.00%



Projected Turning Movements Worksheet

Driveway 'B' / Market Rd

INTERSECTION:

E-W Street: Driveway 'B'

(10)

Year of Existing Counts

N-S Street: Market Rd 2007

Implementation Year

2010

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generaled(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

Total Trips Generated

Total AM Peak Hour BUILD Volumes

Growth Rates		0.00%			0.00%			0.00%			0.00%	
		ound (Drivey		Westb	ound (Drive	vay 'B')	North	bound (Mark	et Rd)	South	bound (Mari	(et Rd)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	185	0	0	42	0
	<u>0</u>	<u>0</u>	0	<u>0</u>	0	0	0	0	0	0	0	0
.M.)	0	0	0	0	0	0	0	185	0	0	42	<u> </u>
ed(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.92%	0.00%	0.00%	0.00%	1.00%	33,66%
ted(Exiting)	59.64%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.00%	1.00%	27.61%
(Exiting)	65.98%	0.00%	0.25%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
	231	0	3	0	0	0	5	4	0	0	6	187
UILD Volumes	231	0	3	0	0	0	5	189	0	0	48	187

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volumes

	ound (Drives	vay 'B')	Westbo	ound (Driver	way 'B')	North	bound (Mari	tet Rd)	Southbound (Market Rd)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	0	0	0	0	119	0	0	204	7.11.511.6	
0	<u>0</u>	<u>Q</u>	0	Q	Q	<u>0</u>	Q	0	0	0		
0	0	0	0	0	0	0	119	0	0	204		
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.92%	0.00%	0.00%	0.00%	1.00%	33.66%	
59.64%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.00%	1.00%	27.61%	
65.98%	0.00%	0.25%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	
409	0	5	0	0	0	6	7	0	0	6	209	
409	0	5	0	0	0	6	126	0	0	210	209	
81	0	0	0	0	0	0	0	0	0	2.0	48	
490	0	5	0	0	0	6	126	0	. 0	210	257	

Number of Commercial Trips Generated

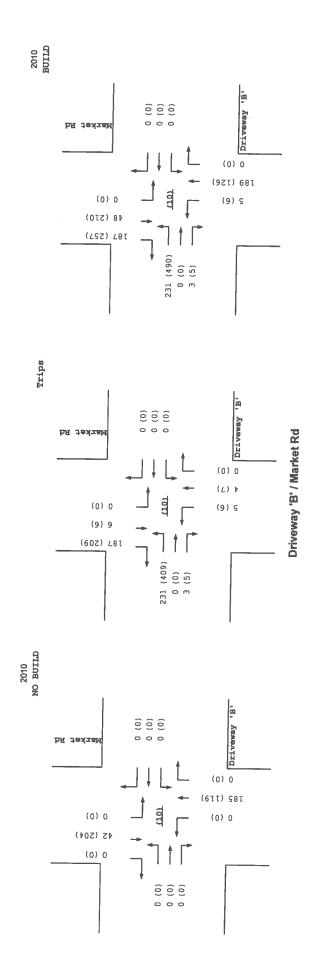
Number of Office Trips Generated

Entering Exiting 499 378 A.M. 602 580 P.M.

100% Commercial Development

A.M. 20 96 P.M. 100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes Eastbound (Driveway 'B') Westbound (Driveway 'B') Northbound (Market Rd) Southbound (Market Rd) 0 0 185 0 42 204



Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2010) - 100% Development

Case L - RI, RO, LI only at Intersection 12

INTERSECTION:

Summary

Hanover Rd / Driveway 'C'

(11)

3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.)

2010 (BUILD - P.M.)

Driveway 'D' / Unser Blvd

(12) 3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

	0.85			0.85			0.85			0.85	PHF
	ound (Hanov	rer Rd)	Westbe	ound (Hano	ver Rd)	Northb	ound (Drive	way 'C')	Southb	ound (Drive	way 'C')
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	11	0	0	0	7	0	
	0.95			0.05	- ''		U		/	U	

_		0.85			0.85			0.85			0.85	PHF
		und (Hanov		Westb	ound (Hanor	ver Rd)	Northb	ound (Drive	way 'C')	Southb	ound (Drive	way 'C')
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	11	0	0	- 0	12	- 0	0
_												

_		0.85			0.85			0.85			0.85	PHF
L	Eastbo	und (Drivew	ay 'D')	Westbo	und (Drivev	vay 'D')	Northb	ound (Unse	r Bívd)	Southb	ound (Unse	r Blvd)
L	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
L	0	0	0	0	0	0	0	701	0	0	1,588	0
L	0	0	0	0	0	0	0	797	0	0	1,806	0
	0	0	0	0	0	80	0	797	216	116	1,950	0
_		0.85			0.85	L		0.05			0.05	

	0.85			0.85			0.95			0.95	PHF
Eastbo	und (Drivey	ray 'D')	Westbe	ound (Drive	way 'D')	North	oound (Unse	r Blvd)	South	oound (Unse	
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	1,520	0	0	966	0
0	0	0	0	0	0	0	1,709	0	0	1,086	0
0	0	0	0	0	295	0	1,613	327	204	1,351	0

Projected Turning Movements Worksheet

·(11)

Hanover Rd / Driveway 'C'

0.00%

INTERSECTION:

E-W Street: Hanover Rd

Driveway 'C'

0.00%

Year of Existing Counts

N-S Street: 2007

2010

Implementation Year

Growth Rates

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - A.M.) Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Total AM Peak Hour BUILD Volumes

8		0.00%			0.00%			0.00%			0.00%	
		ound (Hanov	/er Rd)	Westb	ound (Hano	ver Rd)	Northb	ound (Drive	way 'C')	Southb	ound (Drive	way 'C')
ļ	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	0	0	0	0	0
-	0	<u>0</u>	0	<u>0</u>	0	0	Q	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%
	0	0	0	0	0	11	0	0	0	7	0	0.007
ı	0	0	0	0	. 0	11	0	0	. 0	7	. 0	0

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting)
Percent Office Trips Generated(Extering)
Percent Office Trips Generated(Exiting) Total Trips Generated

Total PM Peak Hour BUILD Volumes

		ound (Hanov	er Rd)	Westb	ound (Hano	ver Rd)	Northb	ound (Drive	vav 'C')	Southb	ound (Drive	way 'C')
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	0	0	0	0	0
	<u>0</u>	0	<u>0</u>	0	Q	Q	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%
- [0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
- [0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%
-	0	0	0	0	0	11	0	0	0	12	0	0
15	0	. 0	0	0	0	11	- 0	0	. 0	12	. 0	0

Number of Commercial Trips Generated

Number of Office Trips Generated

Entering Exiting 499 378 A.M. 602 P.M. 580

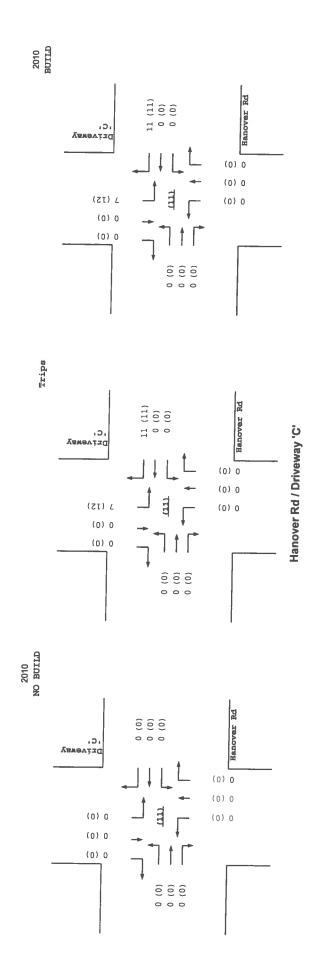
100% Commercial Development

68 9 A.M. P.M. 20 96

100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Eastbo	ound (Hano	rer Rd)	Westbo	ound (Hanover F	Rd)	Northbound	(Driveway	(C')	Southbou	and (Drive	vav 'C')
0	0	0	0	0	0	0	0	0	0	n	0
0	0	0	0	0	0	0	0	0	0	0	- 0



Projected Turning Movements Worksheet

Driveway 'D' / Unser Blvd

INTERSECTION:

E-W Street: Driveway 'D' N-S Street: Unser Blvd

(12)

Year of Existing Counts

2007 2010

Implementation Year

Growth Rates

Existing Volumes **Background Traffic Growth**

Subtotal (NO BUILD - A.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting)

Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) **Total Trips Generated**

Total AM Peak Hour BUILD Volumes

ıs		0.00%			0.00%			4.58%			4.58%	
		und (Drive		Westb	ound (Drive	way 'D')	Northb	ound (Unse	r Blvd)	South	ound (Unse	r Rhed)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	701	0	0	1,588	0
	<u>0</u>	0	0	<u>0</u>	0	0	0	96	0	0	218	
	0	0	0	0	0	0	0	797	0	0	1.806	<u>×</u>
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.91%	20.70%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	20.70%	0.00%	0.00%	0.00%	0.00%	36.91%	0.00%
1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.95%	18.69%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	18.69%	0.00%	0.00%	0.00%	0.00%	46,95%	0.00%
-	0	0	0	0	0	80	0	0	216	116	144	0.0070
8	0	. 0	-0	0	0	80	0	797	216	118	1.950	0

- Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering)
Percent Commercial Trips Generated(Exiting)
Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volume

		0.00%			0.00%			4.15%			4.15%	
	Eastbo	ound (Drivey	ray 'D')	Westbe	ound (Drive	way 'D')	North	ound (Unse	r Blvd)	South	ound (Unse	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	1,520		0	966	
	<u>0</u>	0	Q	0	0	0	0	189	0	0	120	0
	0	0	0	0	0	0	0	1,709	0	0	1.086	2
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36,91%	20.70%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	20.70%	0.00%	0.00%	0.00%	0.00%	36.91%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46,95%	18,69%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	18.69%	0.00%	0.00%	0.00%	0.00%	46.95%	0.00%
	0	0	0	0	0	138	0	0	231	129	259	0.0070
	0	0	0	0	0	138	0	1,709	231	129	1,345	0
L	0	0	0	0	0	157	0	-96	96	75	6	0
es	0	0	0	0	0	295	0	1,613	327	204	1,351	0

Number of Commercial Trips Generated

Entering Exiting A.M. P.M. 499 378 602 580 68 9

100% Commercial Development

Number of Office Trips Generated

A.M. P.M. 96

100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

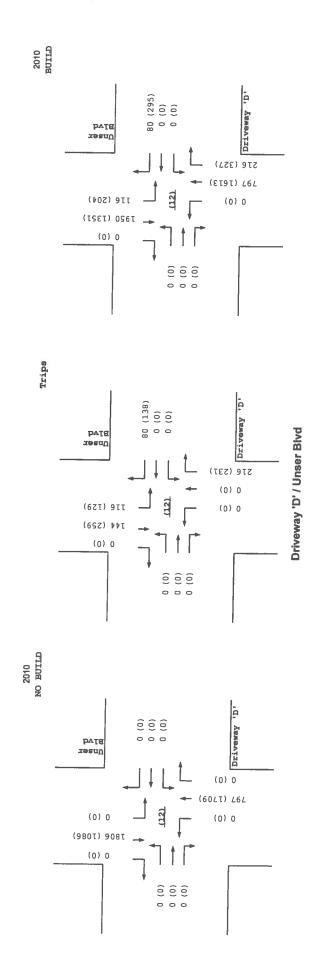
	Eastboun	d (Drivews	y 'D')	Westbour	nd (Drivewa	y 'D')	Northbo	und (Unser	Bivd)	Southbo	ound (Unse	r Blud)
ĺ	0	0	0	0	0	0	0	701	0	0	1,588	0
ļ	0	0	0	0	0	0	0	1,520	0	0	966	0

Pass-by Trip Calculations: PM Pass-by Trips

Percent Entering Volume Entering Percent Exiting Volume Exiting Net PM Passby Trips

Pass-by Trips 267

	und (Drive	vay 'D')	Westbo	und (Driveu	vay 'D')	Northb	ound (Unse	r Blvd)	Southt	ound (Unse	r Rhell
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-36.00%	36.00%	28.00%	-28.00%	0.00%
0	0	0	0	0	0	0	-96	96	75	-75	0.0076
0.00%	0 00%	0.00%	0 00%	0 00%	54.00%	0.00%	0 00%	0.00%	0.00%	28.00%	0.00%
0	0	0	0	0	157	0	0	0	0	81	0.0076
0	0	0	0	0	157	0	-96	96	75	8	0
Entering	Exiting									·	U
0	0	AM									
267	290	PM									



2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E.

SBR 5

8

NBT W NBR

EBR

183 Ť

bm+o∧

Protected Phases Permitted Phases

Volume (vph)

рт+оу

Terry O. Brown, P.E. 12/29/2007

HCM Signalized Intersection Capacity Analysis 2: Ladera Dr & Unser Blvd

Movement										,			
1900 1900	Movement	EBI	EBI	EBR	WBI	MART	WRD	NBC	Nor	MON	200	-	-
1900 1900	Lane Configurations	*	\$	RR	×	¥		1	CHI	YOU	do d	- E	9
1.00	Ideal Flow (vphpl)	1900	1900	1800	1900	1900	1900	1001	Ļδ	1004	<u>ר</u> ק	± 5	-
1.00 0.85 0.86 0.97 0.95 0.97 0.95 1.00 0.87 0.96 0.90 0.87 0.96 0.97 0.96 0.97 0.96 0.97 0.96 0.98 0.97 0.96 0.99 0.99 0.99 0.99 0.99 0.99 0.99	Total Lost time (s)	3.0	3.0	3.0	3.0	3.0		30	3 6	200	300	200	3
1.00 1.00 0.85 1.00 0.94 1.00 1.00 0.85 1.00 1.00 0.85 1.00 1.00 0.85 1.00 0	Lane Util. Factor	1.00	0.85	0.88	0.97	0.95		0 97	200	5 5	0.00	0.5	2.5
100 100	ፗ	1.00	1.00	0.85	100	0.94		8	3 5	3 6	20.00	08.5	2.0
1752 3505 2780 3400 3286 3400 3505 1588 3400 3505	Fit Protected	0.85	1.00	1.00	0.95	100		3 6	3 5	200	3 5	3.5	0.8
0.50 1.00 1.00 0.085 1.00 0.081 1.00 1.00 1.00 1.00 0.081 1.001 1	Satd. Flow (prot)	1752	3505	2760	3400	3286		24.00	20.00	3.5	08.0	00.1	7.0
930 3550 2760 3400 2886 3400 1500 1500 1500 1500 1500 1500 1500 1	Fit Permitted	0.50	1.00	100	0.08	100		300	000	900	3400	3202	1568
199 460 567 686 196 140 163 704 370 340	Satd. Flow (perm)	930	3505	2760	3400	3286		3400	3605	1.00	0.80	90.0	0.
PHF 0.87 0.87 0.87 0.79 0.79 0.79 0.85 0.85 0.85 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89	Volume (vph)	199	460	283	686	198	140	183	700	378	424	3202	8
(a) 229 529 686 686 248 177 182 529 422 0.039 0.039 0.049 0.	Peak-hour factor, PHF	0.87	0.87	0.87	0.79	0.79	0.79	OBS	0 00	200	300	0000	3
(vph) 0 0 10 10 117 0 0 0 0 10 0 0 0 0 0 0 0	Adj. Flow (vph)	229	529	888	898	248	177	182	828	443	140	0.89	0.85
(yph) 229 529 676 686 306 0 192 828 432 140 1522 pm+pt pm+pt pm+pt pm	_	0	0	10	0	117	0		3	100	2	770	9 5
Miles Mile	Lane Group Flow (vph)	229	529	678	898	308	0	182	ROR	433	440	4622	2 6
(s) 28.9 16.0 21.0 25.0 28.1 5.0 43.0 68.0 6.0 44.0 0.32 0.16 0.25 0.27 0.30.1 7.0 45.0 72.0 68.0 44.0 6.0 0.30 0.16 0.23 0.25 0.27 0.06 0.41 0.05 0.07 0.05 0.16 0.23 0.25 0.27 0.06 0.41 0.05 0.07 0.42 0.05 0.16 0.27 0.06 0.41 0.05 0.07 0.42 0.00 0.10 0.08 0.15 c.0.06 c.0.28 0.09 0.06 0.42 1.09 0.27 1465 0.10 0.08 0.15 c.0.06 c.0.28 0.09 0.06 0.24 1.09 0.27 1465 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.1	Tum Type	pm+pt		70+ШС	Prot			Prot		AO+E	a de		0
(s) 28.9 16.0 21.0 25.0 28.1 5.0 43.0 68.0 44.0 0.32.9 18.0 25.0 27.0 28.1 5.0 43.0 68.0 44.0 0.32.0 18.0 25.0 2.27 7.0 45.0 72.0 8.0 46.0 0.30.0 0.16 0.23 0.26 0.27 0.06 0.41 0.45 0.42 0.42 0.42 0.43 0.45 0.44 0.45 0.45 0.44 0.45 0.45 0.44 0.45 0.45	Protected Phases	7	4	co co	9	8		40	2	67	-	4	2
(\$) 28.9 16.0 21.0 25.0 28.1 5.0 43.0 68.0 6.0 44.0 0.30 0.30 0.30 0.10 25.0 27.0 30.1 7.0 45.0 72.0 8.0 46.0 0.30 0.30 0.30 0.32 9 18.0 25.0 27.0 30.1 7.0 45.0 72.0 8.0 46.0 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0	Permitted Phases	4		4				1		00		2	
(s) 32.9 18.0 25.0 27.0 30.1 7.0 45.0 72.0 8.0 46.0 10.0 0.30 0.16 0.23 0.26 0.27 0.06 0.41 0.66 0.07 0.42 0.30 0.16 0.23 0.26 0.27 0.06 0.41 0.66 0.07 0.42 0.30 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.	Actuated Green, G (s)	28.9	_	21.0	25.0	28.1		5.0	43.0	68.0	80	44.0	200
0.30 0.16 0.23 0.25 0.27 0.06 0.41 0.65 0.07 0.42 0.42 0.50 0.07 0.42 0.42 0.50 0.07 0.42 0.42 0.43 0.43 0.43 0.44 0.44 0.44 0.44 0.44	Effective Green, g (s)	32.9		25.0	27.0	30.1		7.0	45.0	72.0	8.0	46.0	80.0
(e) 3.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5	Actuated g/C Ratio	0.30		0.23	0.25	0.27		90.0	0.41	0.65	0.07	0.42	0.55
(6) 340 370 370 330 330 330 330 330 330 330 33	Clearance I Ime (s)	2.0		2.0	5.0	5.0		5.0	2.0	5.0	5.0	5.0	5.0
389 574 703 835 899 216 1434 1069 247 1466 0.08 0.16 co.08 co.28 0.09 0.06 0.24 0.10 0.04 co.43 0.10 0.18 0.28 0.96 1.04 0.34 0.89 0.58 0.40 0.67 1.04 31.1 45.3 42.0 41.5 32.0 51.1 25.1 8.9 49.3 32.0 42 2.3 20.4 24.7 41.9 0.2 32.6 1.7 0.3 30 34.0 33.4 65.7 66.7 83.4 32.3 63.7 26.8 9.2 62.3 66.0 C E E F C F C A D E E E F C E E E E E C E E E E E C E	Verificie Extension (S)	3.0	- 1	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
0.08 0.15 c0.06 c0.26 0.09 0.06 0.24 0.10 0.04 c0.43 0.10 0.08 0.25 0.10 0.04 c0.43 0.10 0.18 0.18 0.18 0.18 0.18 0.18 0.18	Lane Grp Cap (vph)	389		703	835	899	9	216	1434	1069	247	1466	911
0.10 0.18 0.18 0.18 0.18 0.18 0.18 0.18	We reduce Prior	0.08		90.09	97.00	0.09		90.0	0.24	0.10	0.04	c0.43	0.01
1.554 0.82 0.96 1.04 0.34 0.89 0.56 0.40 0.57 1.04 1.31 1.32 1.32 2.02 1.30 1.00 1.00 1.00 1.00 1.00 1.00 1.00	We Ratio Perm	0.79		0.18						0.18			0.03
31.1 45.3 42.0 41.5 32.0 51.1 25.1 8,9 49.3 32.0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1	We read	BC.0		96.0	105	0.34		0.89	0.58	0.40	0.57	104	0.07
7. 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.	Drommering Forth	31.7		45.0	41.5	32.0		51.1	25.1	8,9	49.3	32.0	11.4
02 2.3 20.4 24.7 41.9 0.2 32.6 1.7 0.3 3.0 34.0 33.4 65.7 66.7 66.7 63.4 32.3 63.7 26.8 9.2 52.3 66.0 C F C A D E 61.3 66.6 E E F C A D E C E C E E C E	rightessum ractor	3.5		1.00	90.	99		1.00	1.00	1.00	1.00	1.00	1.00
33.4 66.7 86.7 83.4 32.3 63.7 28.8 9.2 52.3 66.0 C F C F C A D E 68.8 29.0 61.3 E E C E E		2.3		24.7	41.9	0.2		32.6	1.7	0.3	3.0	340	2
61.3 66.6 29.0 A D E 66.6 29.0 61.3	Detay (s)	33.4		66.7	83.4	32.3		83.7	28.8	8.2	623	66.0	11.4
66.6 29.0 61.3 E E C C E	Level of Service	ပ		ш	ш,	ပ		ш	O	4	2	S II	. 0
D III	Approach Delay (s)		61.0			9.99			29.0	2	1	613	3
	Approach LOS		ш			ш			ပ			Ц	

63.9

1.04

0.0 0.57

8.5

0.0 21.5 C 62.7

1.04 82.9 82.9 82.9

0.96

0.92 68.4

32.9 0.30 0.59

Actuated g/C Ratio

v/c Ratio

Control Delay

Queue Delay

Fotal Delay

Lead-Lag Optimize? Act Effet Green (s)

Lead/Lag

Recall Mode

46.0

75.0 0.68

45.0 C-Max

7.0 0.06 0.89

Min

C-Max

None

1.0 1.0 Lead 960.0

4.0 1.0 ead

5.0 10.0 19.0 17.3%

10.0 30.0 27.3%

43.6%

29.1% 4.0

27.3% 1.0 Lead

9.1%

0.00 17.3%

Minimum Initial (s)

Detector Phases

Minimum Split (s) Total Spit (s)
Total Spit (%)
Yellow Time (s)
All-Red Time (s)

33 F 23 2: Ladera Dr & Unser Blvd Splits and Phases: 11 \$ 48

Intersection LOS: D

Intersection Signal Delay: 53.8 Intersection Capacity Utilization 87.9% Confrol Type: Actuated-Coordinated

Analysis Period (min) 15

Maximum v/c Ratio: 1.04

Natural Cycle: 110

Offset: 84 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Actuated Cycle Length: 110

ntersection Summary

Approach Delay

Approach LOS

Cycle Length: 110

0.0

HCM Level of Service Sum of lost time (s) ICU Level of Service

54.5 0.99 110.0 87.9%

Intersection Capacity Utilization Analysis Period (min) HCM Volume to Capacity ratio Average Control Delay Actuated Cycle Length (s)

c Critical Lane Group

2010 AM Peak BUILD Conditions - MITIGATED Case L - Right-in, right-out, left-in access at Intersection 12 D:\text{ATOBEIPROJECTSUteritage_Neighborhood_Marketplace_Ladera_UnserCaseL\text{Z010AB_Mit_L:sy7}

2010 AM Peak BUILD Conditions - MITIGATED Case L - Right-in, right-out, left-in access at intersection 12 D:\ATOBEVPROJECTS\Heritage_Neighborhood_Marketplace_Ladera_Unser\Case\L2010AB_Mit_L.sy7

	•	-	7	1	-	•	. 4	†	-	-	Ţ	1
Movement	EBL	EBT	EBF	R WBL	WBT	WBF	R NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		^ p		7			*			ODL	4	ODN
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	489	34	201	398	(284		136	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.79		0.79		0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph) Pedestrians	0	556	39	254		C		0	158	0.00	1	0.00
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage Right turn flare (veh)												
Median type								Raised		And No. of	Raised	
Median storage veh)								1			1	
Upstream signal (ft)		888						an Face			U.S. Testado	
pX, platoon unblocked												
vC, conflicting volume	504			594			1336	1588	297	1449	1607	252
vC1, stage 1 conf vol							575	575		1013	1013	202
vC2, stage 2 conf vol							761	1013		436	594	
vCu, unblocked vol	504			594			1336	1588	297	1449	1607	252
C, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
C, 2 stage (s)							6.6	5.6	1.0	6.6	5.6	1.0
F (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
00 queue free %	100			74			0	100	77	100	99	100
cM capacity (veh/h)	1050			971			191	173	696	110	141	745
Direction, Lane,#	EB1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1		Transmitt	
/olume Total	0	370	224	254	336	168	330	158	1	2010/00/02		- ENDIN
/olume Left	0	0	0	254	0	0	330	0	0			
/olume Right	0	0	39	0	0	Ö	0	158	0			
SH	1700	1700	1700	971	1700	1700	191	696	141			
olume to Capacity	0.00	0.22	0.13	0.26	0.20	0.10	1.73	0.23	0.01			
Queue Length 95th (ft)	0	0	0	26	0	0.10	572	22	1			
Control Delay (s)	0.0	0.0	0.0	10.0	0.0	0.0	393.5	11.7	30.8			
ane LOS				В	0.0	0.0	F	В	D			
pproach Delay (s)	0.0			3.4			269.9		30.8			
pproach LOS							F		D			
tersection Summary							THE RESIDENCE				ON AN ENGINEERS	STEATMET
verage Delay itersection Capacity Uti	lization		72.9 8.1%	10	U Leve	-40			В		er i borge	

	-	•	1	- 4-	1	-	
Movement	EBT	EBF	WBI	WBT	NBL	NBR	
Lane Configurations	44	-		^		7	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Volume (veh/h)	526	33			0	65	
Peak Hour Factor	0.79				0.85	0.85	
Hourly flow rate (vph)	666				0	76	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)	481						
pX, platoon unblocked			0.91		0.91	0.91	
C, conflicting volume			708		1090	354	
C1, stage 1 conf vol			10. = 2.0 %		.000	001	
/C2, stage 2 conf vol							
Cu, unblocked vol			585		1004	198	
C, single (s)			4.2		6.9	7.0	
C, 2 stage (s)			I I I I I I I I I I I I I I I I I I I		0.0	1.0	
F (s)			2.2		3.5	3.3	
00 queue free %			100		100	90	
cM capacity (veh/h)			894		216	737	
Direction, Lane #	EB1	EB 2	WB 1	WB 2	NB 1		
olume Total	444	264	403	403	76	atipen The reprietation	
olume Left	0	0	0	0	0		
olume Right	0	42	0	0	76		
SH	1700	1700	1700	1700	737		
olume to Capacity	0.26	0.16	0.24	0.24	0.10		
lueue Length 95th (ft)	0	0	0	0	9		
Control Delay (s)	0.0	0.0	0.0	0.0	10.4		
ane LOS					В		
pproach Delay (s)	0.0		0.0		10.4		
pproach LOS					В		
tersection Summary						a de la constant	
verage Delay			0.5				
tersection Capacity Uti	lization		26.3%	IC	U Level	of Service	A HARMAN
nalysis Period (min)			15				

	1	-	4	†	↓	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	14	A STATE OF THE PARTY OF THE PAR		न	4		
Sign Control	Stop	Market 1		Free	Free		
Grade	0%			0%	0%		
Volume (veh/h)	231	3	5	189	48	187	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.86	0.86	
Hourly flow rate (vph)	272	4	6	222	56	217	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	399	165	273				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	399	165	273				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	55	100	100				
cM capacity (veh/h)	602	877	1284				
Direction, Lane#	EB 1	NB 1	SB 1				
Volume Total	275	228	273			L PRIEMS	
Volume Left	272	6	0				
Volume Right	4	0	217				
SH	605	1284	1700				
Volume to Capacity	0.46	0.00	0.16				
Queue Length 95th (ft)	59	0	0				
Control Delay (s)	15.8	0.2	0.0				
ane LOS	С	Α					
Approach Delay (s)	15.8	0.2	0.0				
Approach LOS	С						
intersection Summary							
verage Delay	1.510		5.7				
ntersection Capacity Uti	lization	3	33.7%	ICI	J Level	of Service	A
Analysis Period (min)			15				

			~	7	•	
EBL	EBT	WBT	WBR	SBL	SBR	
	स	The second lines		of street, or other party of		
0			11		0	
0.85						
0						
				1984 191		
				None		
				110110		
13				8	8	
				U		
13				6	6	
			ON EGASA			
			2000	0.4	0.2	
22				35	22	
1599						
EB 1	WB 1	SR 1		DE MARIA		
AND DESCRIPTION OF THE PERSON NAMED IN	Name and Address of the Owner, where the Post of the Owner, where the Post of the Owner, where the Owner, which is the Owner, whic					
0.0	0.0					
0.0	0.0					
0.0	0.0	A				
		3.3				
zation	1	3.3%	ICI	J Level	of Service	A
	0.85 0 13 4.1 2.2 100 1599 EB 1 0 0 0 0.00 0.00	13 4.1 2.2 100 1599 EB 1 WB 1 0 13 0 0 0 13 1700 1700 0.00 0.01 0 0 0 0.00 0.00 0.00 0.00	Free Free 0% 0% 0% 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Free Free 0% 0% 0% 0% 0 0 0 11 0.85 0.85 0.85 0.85 0.85 0.85 0 0 0 13 13 13 13 13 13 13 13 13 13 13 13 13	Free Free Stop	Free Free Stop

	1		†	-	-	+					
Movement	WBL	WBR	NBT	NBR	SBL	SBT					
Lane Configurations		77	444	7	ķ	444					
Sign Control	Stop		Free	W. S. Call	B to a	Free					
Grade	0%		0%			0%					
Volume (veh/h)	0	80	797	216	116	1950					
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85					
Hourly flow rate (vph)	0	94	938	254	136	2294					
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)											
Percent Blockage											
Right turn flare (veh)											
Median type	Raised										
Median storage veh)	1										
Upstream signal (ft)						970					
pX, platoon unblocked						0,0					
vC, conflicting volume	1975	313			1192						
vC1, stage 1 conf vol	938				1102						
C2, stage 2 conf vol	1038										
Cu, unblocked vol	1975	313			1192						
tC, single (s)	6.9	7.0			4.2						
C, 2 stage (s)	5.9				7.2						
F (s)	3.5	3.3			2.2						
00 queue free %	100	86			76						
cM capacity (veh/h)	143	680			576						
Direction, Lane#	WB1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4	ORVERNMEN	and a life of the search of th
/olume Total	94	313	313	313	254	136	765	765	765	PARTIES	
/olume Left	0	0	0	0	0	136	0	0	0		
/olume Right	94	0	0	0	254	0	0	0	0		
SH	680	1700	1700	1700	1700	576	1700	1700	1700		
/olume to Capacity	0.14	0.18	0.18	0.18	0.15	0.24	0.45	0.45	0.45		
Queue Length 95th (ft)	12	0	0	0	0	23	0.40	0.43	0.43		
Control Delay (s)	11.1	0.0	0.0	0.0	0.0	13.2	0.0	0.0	0.0		
ane LOS	В	N. China		0.0	0.0	В	0.0	0.0	0.0		
approach Delay (s)	11.1	0.0				0.7					
pproach LOS	В	0.0				0.7					
ntersection Summary				CHANGE				CONTRACT.	######################################		NAMES OF A STREET
verage Delay			0.8				ASS 100 CT 10			Str. Balling	ettan-
ntersection Capacity Ut nalysis Period (min)	ilization	4	1.0%	IC	U Level	of Serv	rice		Α		

Timings 2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E. 12/29/2007

333 Pm+ov

SBT

28. Frot

Po 50

P 33

Protected Phases Permitted Phases Detector Phases Minimum Initial (s) Minimum Spik (s)

Volume (vph)

rum Type

Lane Group

EBB

EBT

Ť

7

10.0 17.0 14.2%

42.0

10.0% 10.0% 4.0

5.0 34.0 28.3%

5.0 21.0 53.0 44.2%

5.0 23.0 19.2%

5.0 21.0 38.0

5.0 10.0 34.0 28.3%

5.0 10.0 23.0 19.2%

17.5%

1.0 Lead

1.0 Lead

6. t. g

1.0 1.0 1.0

31.7% 4.0 1.0 Lag

ead

Total Split (%)
Total Split (%)
Yellow Time (s)
All-Red Time (s)

Lead/Lag Optimize?
Recall Mode
Act Effot Green (s)
Actuated g/C Ratio

Min

Min 9.0

Max 50.0 0.42 1.09 86.4 86.4 86.4

Min 20.0 0.17 1.12 120.5

Min 0.29 0.81

40.3

57.0

Control Delay Queue Delay

v/c Ratio

Fotal Delay

907

Mfin 31.0 0.26 0.78 51.6

19.2

60.2

0.70 13.2 0.0 13.2

120.5

115.7 0.0 115.7

42.2 42.2 82.4 F

1.06 83.9 83.9 F F

HCM Signalized Intersection Capacity Analysis 2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E. 12/29/2007

1900 11900 11900 1100 1100 1100 1100 11	IT EBR				•	-	,	À	-	
1900 1 100 0 1 100 0 1 100 0 1 100 1 100 1 100 1 100 1 100 1 100 1		WB	WBT	WBR	NBI	NET	MAR	PGS.	TOO	
1900 1 3.0 1.00 1 1.00 1 1.00 1 1.752 3 1.752 3 1.752 3 1.623 1 1.623	2× +	No.	1		K	k	1	3 3	COO	
3.0 1.00 c 1.00 1 1.00	0061 00	1900	1900	1900	1900	1001	1000	ביייי	E S	1
1.00 1.00 1.00 1.752 1.752 4.27 192			3.0		30	300	300	300	36	38
1.00 0.05 1752 0.23 427 3	M 0.88	Ö	0.85		0.97	960	185	200	0.0	2.5
0.95 1752 0.23 427 192	0.85	1.00	0.95		100	100	0.85	200	200	3 6
1752 3 0.23 427 3	1.00		1.80		0 95	100	200	3 9	3 8	0.0
0.23 427 ;		.,	3316		3400	3505	1560	24.5	30.00	3.5
192			1.00		0.95	38	200	300	2002	200
192		3400	3316		3400	3505	15.69	3400	36.00	1.00
	369	834	486	279	607	1524	208	200	4460	200
Peak-hour factor, PHF 0.93 0.93	_	0.93	0.93	0.93	900	0.05	900	200	200	3 3
208		1004	533	300	639	1604	745	30.00	12.00	25.5
RTOR Reduction (vph) 0	7 0	0	92	0	1	2	2 9	300	9 0	4
Lane Group Flow (vph) 206 359	9 390	1004	768	0	636	1604	735	302	1218	8 8
Turn Type pm+pt	pm+ov	Prot			Prot		nu+un	i d	,	3 3
Protected Phases 7	4 5	6	80		40	0		5	•	A LINE
Permitted Phases 4	4						0	į	9	
	3 33.3	28.0	32.6		18.0	48.0	77.0	7.0	37.0	97
s) 31.0		31.0	34.6		20.0	50.0	81.0	6	30.0	527
0.28	3	0.26	0.29		0.17	0.42	0.68	800	0.00	0.44
Clearance Time (s) 5.0 5.0	0 5.0	2.0	2.0		5.0	5.0	5.0	5.0	200	2
3.0		3.0	3.0		3.0	3.0	3.0	3.0	30	
(vph) 263		883	362		570	1469	1104	256	1146	735
	0 0.07	60.30	c0.23		c0.19	c0.46	0.17	000	250	2 5
Ретп 0.11							030	3	2	0.00
0.78	1 0.42	1.14	0.80		1.12	100	0.87	4 18	1 00	5 6
37.3		44.1	39.1		49.6	34.6	112	57.7	300	25.0
		1.00	1.00		1.00	100	101	100	100	100
ital Delay, d2 14.1		75.5	4.7		75.6	52.8	4	113.7	82.0	3 2
Delay (s) 51.4 53.0		119.6	43.8		125.2	B7.4	127	168.0	40.0	20.4
۵		ц.	۵		4	u	ď	3 4	3	3
Approach Delay (s) 44.3	3		85.2		STATE OF	78.0		MAY A	020	
Approach LOS	0		Ŀ			5 ш			7 L	
Intersection Summary	NAMES AND POST OF				Special Section 2	STATE OF	9202025	pharmaga	CHOICEAN	2000
HCM Average Control Delay HCM Volume to Capacity ratio	77.3	Ť	HCM Level of Service	al of Se	Nice		ш		No.	
Actuated Cycle Length (s) Intersection Canadity I Hitzetton	119.3	ಪ 5	Sum of lost time (s)	st time ((S).		9.0			
Analysis Period (min)	15	5	ICO LEVEI OF SERVICE		2		ц.			

2010 PM Peak BUILD Conditions - MITIGATED Case L - Right-in, right-out, left-in access at Intersection 12 D:\ATOBE\PROJECTS\Presequentiage_Neighborhood_Marketplace_Ladera_Unser\Case\L2010\PB_Mit_L:sy7

₹ 31.5

2: Ladera Dr & Unser Blvd

Splits and Phases:

R

Intersection LOS: E

Intersection Capacity Utilization 99.6%

Analysis Period (min) 15

Intersection Signal Delay: 75.5

Maximum v/c Ratio: 1.18

Natural Cycle: 130 Control Type: Semi Act-Uncoord

Actuated Cycle Length: 119.3

ntersection Summary

Approach Delay

Cycle Length: 120

2010 PM Peak BUILD Conditions - MITIGATED Case L - Right-in, right-out, left-in access at Intersection 12 D:ATOBEUPROJECTS/Heritage_Neighborhood_Marketplace_Ladera_Unser/Case\L2010PB_MIL_L:sy7

Fre 0° 1 66 3 0.9 1 71	e 6 6 9 1 3 0 9 1	176 93 89	1784 816 967 1784	NBT Stop 0% 1 0.88 1 2099 816 1282 2099	146	1810 1282 528	Stop 0% 1 0.85 1 Raised 1 2193 1282 911	1 0.85 1	SWL Free 0% 260 0.80 325	505 0.80 631	1 0.80 1
Fre 0° 1 66 3 0.9 1 71	e % 9 1 3 0 9 1	.93	388 0.88 441 1784 816 967 1784	Stop 0% 1 0.88 1 Raised 1 2099 816 1282	146 0.88 166 454	1810 1282 528	Stop 0% 1 0.85 1 Raised 1 2193 1282 911	1 0.85 1	Free 0% 260 0.80 325	505 0.80	1 0.80
Fre 0° 1 66 3 0.9 1 71	e % 9 1 3 0 9 1	.93	0.88 441 1784 816 967 1784	Stop 0% 1 0.88 1 Raised 1 2099 816 1282	146 0.88 166 454	0.85 1 1810 1282 528	Stop 0% 1 0.85 1 Raised 1 2193 1282 911	1 0.85 1	Free 0% 260 0.80 325	505 0.80	
1 66 3 0.9 1 71	9 1 3 0 9 1	.93	0.88 441 1784 816 967 1784	0% 1 0.88 1 Raised 1 2099 816 1282	146 0.88 166	0.85 1 1810 1282 528	0% 1 0.85 1 Raised 1 2193 1282 911	1 0.85 1	0% 260 0.80 325	0.80	
3 0.9 1 71 884	3 0 9 1	.93	0.88 441 1784 816 967 1784	0.88 1 Raised 1 2099 816 1282	0.88 166 454	0.85 1 1810 1282 528	1 0.85 1 Raised 1 2193 1282 911	1 0.85 1	260 0.80 325	0.80	
888	9 1		1784 816 967 1784	Raised 1 2099 816 1282	166 454	1810 1282 528	0.85 1 Raised 1 2193 1282 911	0.85	0.80 325 909	0.80	
884		89	1784 816 967 1784	Raised 1 2099 816 1282	166 454	1810 1282 528	Raised 1 2193 1282 911	316	909		
			1784 816 967 1784	2099 816 1282		1810 1282 528	2193 1282 911				
	3		1784 816 967 1784	2099 816 1282		1810 1282 528	2193 1282 911				
			1784 816 967 1784	2099 816 1282		1810 1282 528	2193 1282 911				
			1784 816 967 1784	2099 816 1282		1810 1282 528	2193 1282 911				
	3		1784 816 967 1784	2099 816 1282		1810 1282 528	2193 1282 911				
			1784 816 967 1784	2099 816 1282		1810 1282 528	2193 1282 911				
			816 967 1784	816 1282		1282 528	1282 911				
			816 967 1784	816 1282		1282 528	1282 911				
			816 967 1784	816 1282		1282 528	1282 911				
			816 967 1784	816 1282		1282 528	1282 911				
			967 1784	1282	151	528	911				
			1784		151						
				ZU99				040			
			7.6	6.6		1810	2193	316	909		
			6.6	5.6	7.0	7.6	6.6	7.0	4.2		
			3.5	4.0	3.3	6.6 3.5	5.6 4.0	0.0	0.0		
			0.0	99	70	95	95	3.3	2.2		
			106	98	550	22	25	677	56		
		2							739		
EB 2	EB	-	NB 1	NB 2	SB 1	SW 1	SW 2	SW 3			
	42							212			
	on the roll							0			
	0.2										
0.0	U	.0					0.0	0.0			
		-		В							
		- /	255.7 F		121.3 F	4.6					
		TO ME				A STATE OF THE STA	THE TOWN			GOODS TO SE	73:50S
THE REAL PROPERTY AND ADDRESS OF THE PERTY ADDRESS OF THE PERTY ADDRESS OF THE PERTY AND ADDRESS OF THE PERTY ADDR	480 0 0 1700 0.28 0 0.0	480 42 0 0 18 1700 170 0.28 0.2 0 0.0 0.	480 429 0 0 0 189 1700 1700 0.28 0.25 0 0 0.0 0.0	480 429 441 0 0 441 0 189 0 1700 1700 106 0.28 0.25 4.15 0 0 Err 0.0 0.0 Err F 7255.7 F	480 429 441 167 0 0 441 0 0 189 0 166 1700 1700 106 533 0.28 0.25 4.15 0.31 0 0 Err 33 0.0 0.0 Err 14.8 F B 7255.7 F	480 429 441 167 4 0 0 441 0 1 0 189 0 166 1 1700 1700 106 533 34 0.28 0.25 4.15 0.31 0.10 0 0 Err 33 8 0.0 0.0 Err 14.8 121.3 F B F 7255.7 121.3 F F	480 429 441 167 4 325 0 0 441 0 1 325 0 189 0 166 1 0 1700 1700 106 533 34 739 0.28 0.25 4.15 0.31 0.10 0.44 0 0 Err 33 8 56 0.0 0.0 Err 14.8 121.3 13.6 F B F B 7255.7 121.3 4.6 F	480 429 441 167 4 325 421 0 0 441 0 1 325 0 0 189 0 166 1 0 0 1700 1700 106 533 34 739 1700 0.28 0.25 4.15 0.31 0.10 0.44 0.25 0 0 Err 33 8 56 0 0.0 0.0 Err 14.8 121.3 13.6 0.0 F B F B 7255.7 121.3 4.6 F F	480 429 441 167 4 325 421 212 0 0 441 0 1 325 0 0 0 189 0 166 1 0 0 1 1700 1700 106 533 34 739 1700 1700 0.28 0.25 4.15 0.31 0.10 0.44 0.25 0.12 0 0 Err 33 8 56 0 0 0.0 0.0 Err 14.8 121.3 13.6 0.0 0.0 F B F B 7255.7 121.3 4.6 F	480 429 441 167 4 325 421 212 0 0 441 0 1 325 0 0 0 189 0 166 1 0 0 1 1700 1700 106 533 34 739 1700 1700 0.28 0.25 4.15 0.31 0.10 0.44 0.25 0.12 0 0 Err 33 8 56 0 0 0.0 0.0 Err 14.8 121.3 13.6 0.0 0.0 F B F B 7255.7 121.3 4.6 F	480 429 441 167 4 325 421 212 0 0 441 0 1 325 0 0 0 189 0 166 1 0 0 1 1700 1700 106 533 34 739 1700 1700 0.28 0.25 4.15 0.31 0.10 0.44 0.25 0.12 0 0 Err 33 8 56 0 0 0.0 0.0 Err 14.8 121.3 13.6 0.0 0.0 F B F B 7255.7 121.3 4.6 F F

		->	1	-	4	1	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1	The same of the sa		44		77	
Sign Control	Free			Free	Stop	San Arien	
Grade	0%			0%	0%		
Volume (veh/h)	664	85	0	1049	0	163	
Peak Hour Factor	0.93	0.93	0.93		0.85	0.85	
Hourly flow rate (vph)	714	91	0		0	192	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)	481						
pX, platoon unblocked							
vC, conflicting volume			805		1324	403	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			805		1324	403	
tC, single (s)			4.2		6.9	7.0	
tC, 2 stage (s)							
tF(s)			2.2		3.5	3.3	
p0 queue free %			100		100	68	
cM capacity (veh/h)			808		146	594	
Direction, Lane#	EB 1	EB 2	WB1	WB 2	NB 1		
/olume Total	476	329	564	564	192		
Volume Left	0	0	0	0	0		
/olume Right	0	91	0	0	192		
SH	1700	1700	1700	1700	594		
/olume to Capacity	0.28	0.19	0.33	0.33	0.32		
Queue Length 95th (ft)	0	0	0	0	35		
Control Delay (s)	0.0	0.0	0.0	0.0	13.9		
ane LOS					В		
Approach Delay (s)	0.0		0.0		13.9		
Approach LOS					В		
ntersection Summary				MATERIAL PROPERTY.			
verage Delay			1.3				
ntersection Capacity Uti	ilization		37.8%	IC	U Level	of Service	e A
nalysis Period (min)			15				

	-	-	1	†	+	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	Y			र्ब	4		
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Volume (veh/h)	490	5	6	126	210	257	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.88	0.88	
Hourly flow rate (vph)	576	6	7	143	239	292	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	541	385	531				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	541	385	531				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF(s)	3.5	3.3	2.2				
p0 queue free %	0	99	99				
cM capacity (veh/h)	497	661	1032				
Direction, Lane#	EB 1	NB 1	SB 1				
Volume Total	582	150	531				
Volume Left	576	7	0				
/olume Right	6	0	292				
SH	498	1032	1700				
/olume to Capacity	1.17	0.01	0.31				
Queue Length 95th (ft)	524	0	0				
Control Delay (s)	122.9	0.4	0.0				
ane LOS	F	Α					
Approach Delay (s)	122.9	0.4	0.0				
Approach LOS	F						
ntersection Summary					\$60k35		
verage Delay			56.7				
ntersection Capacity Ut	ilization	6	30.9%	ICL	J Level	of Service	B B
nalysis Period (min)			15	The second second		1100	

	1	→	←		1	1	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		र्स	7-		W		
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Volume (veh/h)	C		0	11	12	0	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Hourly flow rate (vph)	0	0	0	13	14	0	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	13				6	6	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	13				6	6	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)						0.2	
tF(s)	2.2				3.5	3.3	
p0 queue free %	100				99	100	
cM capacity (veh/h)	1599				1012	1073	
Direction, Lane#	EB 1	WB1	SB 1				
Volume Total	0	13	14				
Volume Left	0	0	14				
Volume Right	0	13	0				
cSH	1700	1700	1012				
Volume to Capacity	0.00	0.01	0.01				
Queue Length 95th (ft)	0	0	1				
Control Delay (s)	0.0	0.0	8.6				
ane LOS			Α				
Approach Delay (s)	0.0	0.0	8.6				
Approach LOS		W. 1	Α				
ntersection Summary							
Verage Delay			4.5	1011			
ntersection Capacity Uti	lization	1	3.3%	ICI	J Level	of Service	e A
analysis Period (min)			15		a Trope and To		

	1	•	†	-	-	Ţ						
Movement	WBL	WBR	NBT	NBR	SBL	SBT	5-1020	a tracero i		Van Maria		ASDESS:
Lane Configurations		7"	The state of the state of	ALC: UNIVERSITY OF THE PARTY OF	THE RESERVE AND PERSONS ASSESSED.	the same of the sa					The Addings of the	
Sign Control	Stop		Free		E 167.60	Free						
Grade	0%		0%			0%						
Volume (veh/h)	0				204	1351						
Peak Hour Factor	0.85		0.95		0.95	0.95						
Hourly flow rate (vph)	0	347	1698	344	215	1422						
Pedestrians					2.0	1744						
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	Raised											
Median storage veh)	1											
Upstream signal (ft)						935						
pX, platoon unblocked						900						
vC, conflicting volume	2601	566			2042							
vC1, stage 1 conf vol	1698	000			2042							
vC2, stage 2 conf vol	904											
vCu, unblocked vol	2601	566			2042							
tC, single (s)	6.9	7.0			4.2							
tC, 2 stage (s)	5.9	7.0			4.2							
tF(s)	3.5	3.3			2.2							
p0 queue free %	100	25			20							
cM capacity (veh/h)	44	465			269							
Direction, Lane#	WB 1	NB 1	NB 2	NB/3	NB 4	CD 4	CD A	00.0	OP 4	Village de la	Manufacture and the second	
Volume Total	347	566	566	566	344	SB 1	SB 2	SB 3	SB 4			
Volume Left	0	0	0	0		215	474	474	474			
Volume Right	347	0	0	0	0	215	0	0	0			
SH	465	1700	1700	1700	344	0	0	0	0			
/olume to Capacity	0.75	0.33	0.33	0.33	1700	269	1700	1700	1700			
Queue Length 95th (ft)	155	0.33			0.20	0.80	0.28	0.28	0.28			
Control Delay (s)	32.2	0.0	0	0	0	155	0	0	0			
ane LOS	D	0.0	0.0	0.0	0.0	56.0	0.0	0.0	0.0			
Approach Delay (s)	32.2	0.0				F						
Approach LOS	D	0.0				7.4						
ntersection Summary				Name 's		Thursday.		00000000000				ESmile
verage Delay			5.8	Laborated States			4 4 7 M 2 7 7 2 1	Harmonie :	4.30,000	Mary Page 1		
ntersection Capacity Ut	tilization		6.1%	IC	U Level	of Serv	rice		В			
nalysis Period (min)			15			3, 30, 0			D			

Analysis of 2010 BUILD Conditions

CASE "R"
(Right-in, Right-out Access Driveway on Unser Blvd.)

Projected Turning Movements SUMMARY
PROPOSED DEVELOPMENT (2010) - 100% Development

Case R - RI, RO only at Intersection 12

INTERSECTION:

Summary

<u>Ladera Dr / Unser Blvd</u>
(2)
3.0% Truck
Existing (2007)
2010 (NO BUILD - A.M.)
2010 (BUILD - A.M.)

	0.87			0.79			0.85			0 89	PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			ound (Unse	r Blvd)	Southb	ound (Unser	
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
175	251	365	317	105	44	48	429	224	45	906	
199	446	557	542	186	123	134	653				58
							003	376	99	1,279	105
199	498	557	686	196	140	163	704	376	201	1.279	105
	0.93			0.93			0.05			***	

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

п	Easthound (Ladous Du)				0.93			0.95			0.96	PHF
L	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northb	ound (Unse	Blvd)	Southb	ound (Unse	
L	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
L	140	182	138	281	264	107	288	860	372	94	547	
	192	319	322	594	480	249	560	1,433	708	263	1,087	184
Γ	192	381	322	934	496	279	_	,				333
<u>_</u>		007	022	334	430	2/9	607	1,524	708	372	1,087	333

Ladera Dr / Market Rd

3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

	0.00			0.79			0.86			0.85	PHF
	Eastbound (Ladera Dr)			Westbound (Ladera Dr)			ound (Mark	et Rd)	Southb	ound (Mark	
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	425	28	14	365	0	113	0	72	0	0	- Trigite
0	425	28	15	398	0	113	0	72	0	0	
0	489	39	201	398	0	284	0	136	0	4	
	0.93			0.80				100	- 0		

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

Feetle	0.93		Weethand (Ledon Da)				0.88		0.85 PI		PHF
	Eastbound (Ladera Dr) Left Thru Right			Westbound (Ladera Dr)			ound (Mari	ket Rd)	South	ound (Mar	(et Rd)
Lett	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	513	156	48	463	0	83	0	36	0	0	7 tigit
0	559	170	52	505	0	83	0	36	0	0	0
0	669	182	260	505	0	388	0	146	0	1	
								7.70	. 0	- 1	

Ladera Dr / Driveway 'A'

3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

		0.79		0.79				0.85			0.85	PHF
		Eastbound (Ladera Dr)		Westb	ound (Lade	ra Dr)	Northbe	ound (Drive	way 'A')	Southh	ound (Drive	
ļ	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Į	0	520	0	0	466	0	0	0	0	0	0	- rugint
	0	520	0	0	466	0	0	0	0	0		0
-[0	531	144	0	637	0	0	0	65	- 0		
_		0.93			0.93			0.85	03	U	0.05	0

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

Easth	0.55	D-1	Monthound (Lodous Da)				0.85		0.85		PHF
	Eastbound (Ladera Dr)		Westbound (Ladera Dr)			Northb	ound (Drive	wav 'A')	South	ound (Drive	L'A' vew
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	648	0	0	652	0	0	0	0	0		rugit
0	706	0	0	711	0	0	0	0	- 0	0	0
0	595	282	0	1.049		-		100	- 0	- 0	
			-	1,045	U	U	U	163	0	0	0

Driveway 'B' / Market Rd

3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

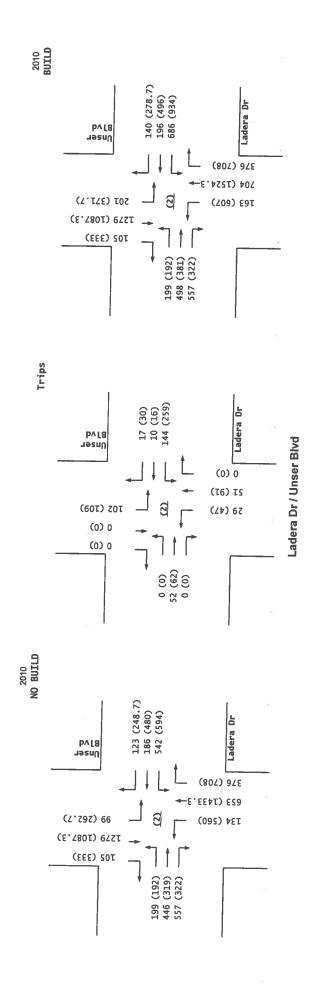
	0.85			0.85			0.86			0.86	PHF
	bound (Drive	way 'B')	Westbound (Driveway 'B')			Northi	ound (Mark	et Rd)	Southbound (Mari		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0 (0	0	0	0	0	185	0	0	42	n.igin
	0	0	0	0	0	O	185	0	0	42	
231	0	3	0	0	0	5	189	0		F2	407
	0.85			0.85		- 0	0.88	0	0	53	187

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

	0.85			0.85			0.88			0.00	
	Eastbound (Driveway 'B')			ound (Drivey	vay 'B')	North		cet Rd)	South		PHF
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	119	0	0	204	0
0	0	0	0	0	0	0	119	0	0		0
490	0	5	0	0	0	6	126	0	0		257
	Left 0	Left Thru 0 0 0 0	Eastbound (Driveway 'B') Left Thru Right 0 0 0 0 0 0 0 0 0	Eastbound (Driveway 'B') Westbound Left Thru Right Left 0 0 0 0 0 0 0 0	Eastbound (Driveway 'B') Westbound (Driveway 'B') Left Thru Right Left Thru 0 0 0 0 0 0 0 0 0	Eastbound (Driveway 'B') Westbound (Driveway 'B') Left Thru Right Left Thru Right 0 0 0 0 0 0 0 0 0 0 0 0	Eastbound (Driveway 'B') Westbound (Driveway 'B') North Left Thru Right Left Thru Right Left 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Eastbound (Driveway 'B') Westbound (Driveway 'B') Northbound (Mark Left Thru Right Left Thru Right Left Thru	Eastbound (Driveway 'B') Westbound (Driveway 'B') Northbound (Market Rd)	Eastbound (Driveway 'B') Westbound (Driveway 'B') Northbound (Market Rd) South	Column C

Heritage Neighborhood Center (Ladera Or / Unser Blvd) Projected Turning Movements Worksheet Ladera Dr / Unser Blvd

				Projec		ing Mover	nents Wo	orksheet		/			
INTERSECTION: E-WS	treet la	edera Dr			(2)				•				
N-9 S		nser Biv			(2)								
Year of Existing Counts Implementation Year	2007												
Growth	2010 Rates		0.68%			6.77%			4.58%				
			ound (Lad			bound (Lade			bound (Unse		Southi	3.68% bound (Unse	r Bivd)
Existing Volumes	-	Left 175	Thru 251	Right 385	Left 317	Thru 105	Right 44	Left 48	Thru 429	Right 224	Left	Thru	Right
Background Traffic Growth		4	5	Z	64	21	9	Z	59	31	45 5	906	58 6
Subtotal	_	179	256	372	381	126	53	55	488	255	50	1,006	64
i-40 / Unser Development Ladera Business Park	<u> </u>	0	0	43	161	0	0	32	32	121	0	42	0
Previous Development from below		20	190	142	0	0	3	0	28	0	5	47	0
Subtotal (NO BUILD - A.M.)		199	448	557	542	60 188	67 123	47 134	105 653	<u>0</u> 376	99	184	41
Percent Commercial Trips Generated/Enterin		.00%	10.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.48%	1,279	0.00%
Percent Commercial Trips Generated (Exiting Percent Office Trips Generated (Entering)		.00%	0.00% 3.59%	0.00%	38.91%	2.53%	4.37% 0.00%	7.59%	13.11%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated (Editing)		00%	0.00%	0.00%	48.95%	0.90%	5.33%	2.69%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated Total AM Peak Hour BUILD Vol	ımes	199	52 498	0 557	144 686	10	17	29	51	0	102	0	0
		100	400	331	000	190	140	163	704	376	201	1,279	105
	_	-	3,98%			2.50%			4.15%			3.12%	
	-	Eastbo Left	Thru	Right	Left	Thru	Right	Northb Left	Thru	Right	Southb	ound (Unser	
Existing Volumes		140	182	138	281	264	107	288	860	372	Len 94	Thru 547	Right 184
Background Traffic Growth Subtotal		17	22	16	21	20	8	<u>36</u>	107	46	9	51	17
I-40 / Unser Development		157	204	154 78	302	284	115	324	967	418	103	598	201
Ladera Business Park	-	0	0	0	292	0	0	77	77	290	0	77	0
Previous Development from below		35	115	90	0	196	120	0 159	123 266	0	23	204	0
Subtotal (NO BUILD - P.M.)		192	319	322	594	480	249	560	1,433	<u>0</u> 708	137 263	1,087	132 333
Percent Commercial Trips Generated(Entering Percent Commercial Trips Generated(Exiting)			10.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.48%	0.00%	0.00%
Percent Office Trips Generated(Entering)			0.00% 3.59%	0.00%	36.91%	2.53%	0.00%	7.59%	13.11%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated (Exiting)		20%	0.00%	0.00%	46.95%	0.90%	5.33%	2.69%	16.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated Subtotal PM Pk Hr. BUILD Volumes	-	192	62 381	322	259 853	16 496	30 279	47	91	0	109	0	0
Pass-by Trip Adjustments		0	0	0	81	0	0	607	1,524	708	372	1,087	333
Total PM Peak Hour BUILD Volu	mes	192	381	322	934	496	279	607	1,524	708	372	1,087	333
	Ente	ering i	Exiting										
Number of Commercial Trips Generated	41	99	378 A	.M. 1	00% Com	mercial De	velopmen	t					
Number of Office Trips Generated		02 18		'.M. .M. 1	00% Office	Developr	nent						
	2	0		.M.		остоюр	10111						
Previous Developments - AM Peak Hour	Volumes												
	Le		nd (Ladera Thru			und (Ladera			ınd (Unser I		Southbou	and (Unser E	livd)
Watershed Residential & Retail		0	78	Right 0	Left 0	Thru 24	Right 0	Left 0	Thru	Right			Right
Storm Cloud Dev. w/ others		0	112	142	0	36	0	47	44	0	0	17	0
98th / Unser Development		20	Q	0	0	0	67	0	55	0	44	36	28 13
Subtotal	L	20	190	142	0	60	67	47	105	0	44	184	41
Previous Developments - PM Peak Hour	/olumes												
	Le		nd (Ladera Thru	Dr) Right	Westboo Left	ind (Ladera		Northbou	nd (Unser B	livd)		nd (Unser B	lvd)
Watershed Residential & Retail		0	44	0	0	Thru 78	Right	Left 0		Right			- Ught
Storm Cloud Dev. w/ others		0	71	90	0	118	0	159	19	0	0	83	0
98th / Unser Development		35	Q	Q	Q	Q	120	0	98	0	137	113	91
Subtotal		35	115	90	0	196	120	159	266	0	137	208	132
MRCOG Forecast Volumes Worksheet													
Based on 2007 Traffic Count													
2007 AM Link Volume													
			791			488			704				
2007 PM Link Volume			791 460			466 652			701 1,520			1,009	
			460			652			1,520			825	
2007 PM Link Volume Based on MRCOG Model (2030 Data Set)													
2007 PM Link Volume <u>Resed on MRCOG Model (2030 Data Set)</u> 2030 AM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to M	atch 2030	Foreca	914 881			652 1192			1,520			825 1859	
2007 PM Link Volume Based on MRCOG Model (2030 Data Set) 2030 AM Link Volume	atch 2030		914 881 sts 0.68%			652 1192 1027 8.77%			1,520 1440 2970 4.58%			825 1859 1417	
2007 PM Link Volume Resed on MRCOG Model (2030 Data Set) 2030 AM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to M 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates	atch 2030		914 881 sts			652 1192 1027			1,520 1440 2970			1859 1417	
2007 PM Link Volume Resed on MRCOG Model (2010 Data Sat) 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2007-2030 AM Growth Rates 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates		3	460 914 881 sts 3.68%	7		652 1192 1027 8.77% 2.50%	4		1,520 1440 2970 4.58% 4.15%			825 1859 1417 3.66% 3.12%	
2007 PM Link Volume Resed on MRCOG Model (2030 Data Set) 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to M 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates Pass-by Trip Calculations: AM Pass-by Trips Percent Entering		stbound	914 881 883 3.68% 3.98%	00% 0	Westboun	852 1192 1027 8.77% 2.50% d (Leders Di		Northboun	1,520 1440 2970 4.58% 4.15%		Southboun	825 1859 1417 3.66% 3.12%	
2007 PM Link Volume Resed on MRCOG Model (2030 Data Set) 2030 AM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to M 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates Pess-by Trip Calculations: AM Pass-by Trips	0.00%	stbound 6 0.0	914 881 883 3.68% 3.98% 4 (Laders D) 00% 0	00% 0	Westboun	852 1192 1027 8.77% 2.50% d (Leders D)	00% 0.	Northboun 00% 0	1,520 1440 2970 4.58% 4.15% d (Unser Bh 00% 0	00% 0.	Southboun	825 1859 1417 3.66% 3.12% d (Unser Blv 00% 0.1	0
2007 PM Link Volume Based on MRCOG Model (2030 Data Sat) 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates Pass-by Trip Calculations: AM Pass-by Trips Percent Entering Volume Entering Percent Exiting Volume Exiting	E	3 3 6 0.0 0 0 6 0.0	914 881 sts 88% 98% (Laders D. 00% 0 00% 0	00% 0 0 00% 0	Westboun 00% 0 0 00% 0	652 1192 1027 8.77% 2.50% d (Ladera Di 00% 0.000000000000000000000000000000000	00% 0. 00% 0. 0	Northboun 00% 0 0 0 00% 0	1,520 1440 2970 4.58% 4.15% d (Unser Bh 00% 0	00% 0.	Southboun	825 1859 1417 3.66% 3.12% d (Unser Blv 00% 0.1	20%
2007 PM Link Volume Resed on MRCO/G Model (2030 Data Set) 2030 AM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to M 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates Pess-by Trip Calculations: AM Pass-by Trips Percent Entering Volume Entering Percent Exiting	0.00%	1 stbound 6 0.0	914 881 883 9.68% 9.68% 9.68% 9.68% 9.68% 9.60% 9.00% 9.00%	00% 0 0 00% 0	Westboun 00% 0 0 00% 0	652 1192 1027 8.77% 2.50% d (Ledera Di 00% 0:	00% 0. 0 00% 0.	Northboun 00% 0 0	1,520 1440 2970 4.58% 4.15% d (Unser Bh 00% 0.00% 0.00%	00% 0 0 00% 0	Southboun 00% 0 0	825 1859 1417 3.66% 3.12% d (Unser Blv 00% 0.0 00% 0.0	0 0 0%
2007 PM Link Volume Resed on MRCOG Model (2030 Data Sat) 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to M 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates Pass-by Trip Calculations: AM Pass-by Trips Percent Entering Percent Entering Percent Exiting Volume Exiting Volume Exiting Not AM Pass-by Trips PM Pass-by Trips	0.00% 0.00%	nstbound 6 0.0 0 0 0 0	460 914 881 881 885 8.88% 8.98% 6 (Ladera D. 00% 0. 00% 0. 0 0	00% 0 0 00% 0 0 0	Westboun 00% 0 00% 0 0 Westboun	8.52 1192 1027 8.77% 2.50% d (Laders D) 00% 0.0 0 00% 0.0	00% 0. 0 00% 0. 0	Northboun 00% 0 0 00% 0 00% 0 0 Northbounc	1,520 1440 2970 4.58% 4.15% d (Unser Sh 00% 0 0 0 0 i (Unser Sh 0	00% 0 0 00% 0 0	Southboum 00% 0 0 00% 0 0	825 1859 1417 3.66% 3.12% 3.12% 4 (Unser Blv 00% 0.1 0 00% 0.1 0 0	00% 00% 0000 0
2007 PM Link Volume Based on MRCOG Model (2030 Data Sat) 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates Pass-by Trip Calculations: AM Pass-by Trips Percent Entering Volume Entering Volume Entering Net AM Pass-by Trips PM Pass-by Trips PM Pass-by Trips PM Pass-by Trips Volume Entering Volume Entering Volume Entering Volume Entering Volume Entering	0.00% 0.00%	nstbound 6 0.0 0 0 0 0	460 914 881 881 885 8.88% 8.98% 6 (Ladera D. 00% 0. 00% 0. 0 0	00% 0 0 00% 0 0 0	Westboun 00% 0. 0 0 0 0 0 0 0 0	652 1192 1027 8.77% 2.50% d (Laders Dr 00% 0.00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 0. 0 00% 0. 0 00% 0.	Northbound 00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1,520 1440 2970 4.58% 4.15% d (Unser Sh. 00% 0.00%	00% 0. 00% 0. 0 0 0 0 0 0 0 0 0 0	Southbound 00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	825 1859 1417 3.66% 3.12% d (Unser Blv) 0 0 0 0 0 0 d (Unser Blv) 0	00% 00% 000 000 000 00%
2007 PM Link Volume Rased on MRCOG Model (2030 Data Sat) 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume Growth Rate to Apply to Existing Counts to M 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates Pass-by Trip Calculations: AM Pass-by Trips Percent Exiting Volume Entering Percent Exiting Net AM Pass-by Trips PM Pass-by Trips PM Pass-by Trips PM Pass-by Trips Percent Exiting Volume Entering Volume Entering Percent Exiting Percent Exiting Percent Exiting	Ea 0.00% 0.00% Ea 0.00%		914 881 sts	00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Westboum 00% 0. 00% 0. 00% 0. Westboum 00% 0. 00% 0.	852 1192 1027 8.77% 2.50% d (Laders Dr 00% 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 0.0 0 0 0 0.0 0 0 0 0.0 0 0 0 0.0 0 0 0.0 0 0 0.0	Northboum 00% 0. 00% 0. 00% 0. 00% 0. Northbound 00% 0. 00% 0.	1,520 1440 2970 4.88% 4.15% d (Unser Sh 00% 0 0 0 1 (Unser Sh 00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Southbound 00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	825 1859 1417 3.66% 3.12% d (Unser Sity 00% 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 000% 0 0
2007 PM Link Volume Based on MRCOG Model (2030 Data Sat) 2030 AM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2007-2030 AM Growth Rates 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates Pass-by Trip Calculations: AM Pass-by Trips Percent Entering Volume Entering Volume Entering Net AM Pass-by Trips PM Pass-by Trips PM Pass-by Trips PM Pass-by Trips Volume Entering Volume Entering Volume Entering Volume Entering Volume Entering	Ea 0.00%	stbound 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	914 881 883 9.68% 9.98% 1 (Ladera D. 00% 0 0 0 1 (Ladera D. 00% 0 0 0 0 0 0 0	00% 0 0 00% 0 0 0 0 0 0 0 0 0 0 0	Westboun 00% 0 00% 0 0 0 0 0 Westboun 00% 0	852 1192 1027 8.77% 2.50% d (Laders Dr. 00% 0.0	00% 0. 0 00% 0. 0 0 0 0 0. 0 0 0.0 0 0.0	Northboun 00% 0 0 0 00% 0 0 0 0 0 0 0 0 0 0 0 0 0	1,820 1440 2970 4.58% 4.15% d (Unser Sh 00% 0.0 0 00% 0.0 0 0 d (Unser Sh 00% 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Southbound O	825 1859 1417 3.66% 3.12% 4 (Unser Shy 00% 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
2007 PM Link Volume Based on MRCOG Model 1/2030 Data Sat) 2030 PM Link Volume 2030 PM Link Volume Crowth Rate to Apply to Existing Counts to M 2007-2030 AM Growth Rates 2007-2030 AM Growth Rates Person Entering Volume Entering Percent Entering Volume Exiting Net AM Pass-by Trips PM Pass-by Trips PM Pass-by Trips PM Pass-by Trips Percent Entering Volume Exiting	Ea 0.00% 0.00% Ea 0.00% 0.00% Enterin	Stbound	914 881 sts 0.68% .98% I (Ledere D. 00% 0 0 0 (Ledere D. 00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Westboum 00% 0. 0 0 0 0 0 0 0 0	852 1192 1027 8.77% 2.50% d (Laders Dr. 00% 0.0 0 00% 0.0 0 000% 0.0 0 000% 0.0	00% 0.	Northboun	1,520 1440 2970 4.88% 4.15% d (Unser Sh 00% 0 0 0 1 (Unser Sh 00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Southboum 00% 0 00% 0 00% 0 00% 0 00% 0 00% 0 00% 0 00% 0 00% 0 00% 0 00% 0	825 1859 1417 3.66% 3.12% d (Unser Blv 00% 0.0 0 0 d (Unser Blv 00% 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 00% 0 0 0 0 0 0 0 0 0
2007 PM Link Volume Resed on MRCOG Model (2010 Data Sat) 2030 PM Link Volume 2030 PM Link Volume 2030 PM Link Volume 2007-2030 PM Growth Rates 2007-2030 PM Growth Rates Pess-by Trip Calculations: AM Pass-by Trips Percent Entering Percent Entering Volume Entering Net AM Pass-by Trips PM Pass-by Trips PM Pass-by Trips PM Pass-by Trips Percent Entering Volume Entering Volume Entering Volume Entering Volume Entering Volume Entering Volume Entering Percent Entering Volume Entering Percent Entering Volume Entering Percent Entering Percent Entering Percent Entering Percent Entering Percent Entering	Ea 0.00% 0.00% Ea 0.00% 0.00% Enterin	Stbound	914 881 883 .88% .98% .98% .98% .90% 0.00 0 00% 0.00	00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Westboum 00% 0. 0 0 0 0 0 0 0 0	852 1192 1027 8.77% 2.50% d (Laders Dr. 00% 0.0 0 00% 0.0 0 000% 0.0 0 000% 0.0	00% 0.	Northboun	1,820 1440 2970 4.58% 4.15% d (Unser Sh 00% 0.0 0 00% 0.0 0 0 d (Unser Sh 00% 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Southbound O	825 1859 1417 3.66% 3.12% 4 (Unser Shy 00% 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 00% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0



Projected Turning Movements Worksheet

Ladera Dr / Market Rd

INTERSECTION:

E-W Street: Ladera Dr

Growth Rates

(7)

0.00%

Year of Existing Counts

N-S Street: Market Rd 2007

Implementation Year

2010

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting)
Percent Office Trips Generated(Exiting)
Percent Office Trips Generated(Exiting) Total Trips Generated

Total AM Peak Hour BUILD Volumes

35		0.00%			3.00%			0.00%		0.00%			
		ound (Lade	ra Dr)	West	bound (Lade	era Dr)	North	bound (Mar	ket Rd)	South	bound (Mari		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
-	0	425	28	14	365	0	113	0	72	0	0	0	
	<u>Q</u>	<u>0</u>	<u>0</u>	1	<u>33</u>	0	0	Q	0	0	0	0	
	0	425	28	15	398	0	113	0	72	0	0	0	
	0.00%	0.00%	2.00%	33.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.00%	
	0.08%	16.75%	0.00%	0.00%	0.00%	0.00%	43.81%	0.07%	16.76%	0.00%	0.00%	0.00%	
	0.00%	0.00%	2.00%	27.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%	
	0.02%	13.79%	0.00%	0.00%	0.00%	0.00%	53.18%	0.02%	13.78%	0.00%	0.00%	0.00%	
	0	64	11	186	0	0	171	0	64	0	1	0	
8	0	489	39	201	398	-0	284	0	136	0	1	0	

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering)
Percent Commercial Trips Generated(Exiting)
Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Total PM Peak Hour BUILD Volume

	3.00% Eastbound (Ladera Dr)				3.00%			0.00%		0.00%			
- 1				West	bound (Lade	ra Dr)	North	bound (Mar	ket Rd)	South	bound (Mari	(et Rd)	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	513	156	48	463	0	83	0	36	0	n	0	
Į	<u>0</u>	<u>46</u>	14	4	42	0	0	0	0	0	0	0	
	0	559	170	52	505	0	83	0	36	0	0	<u> </u>	
	0.00%	0.00%	2.00%	33.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.00%	
	0.08%	16.75%	0.00%	0.00%	0.00%	0.00%	43.81%	0.07%	16.76%	0.00%	0.00%	0.00%	
	0.00%	0.00%	2.00%	27.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%	
L	0.02%	13.79%	0.00%	0.00%	0.00%	0.00%	53.18%	0.02%	13.78%	0.00%	0.00%	0.00%	
. L	0	110	12	208	0	0	305	0	110	0	1	0.0070	
183	0	669	182	260	505	0	388	0	146	0	1	0	

Number of Commercial Trips Generated

Entering Exiting A.M. P.M. 499 378 602 580

100% Commercial Development

Number of Office Trips Generated

68 A.M. 9 20 96 P.M.

100% Office Development

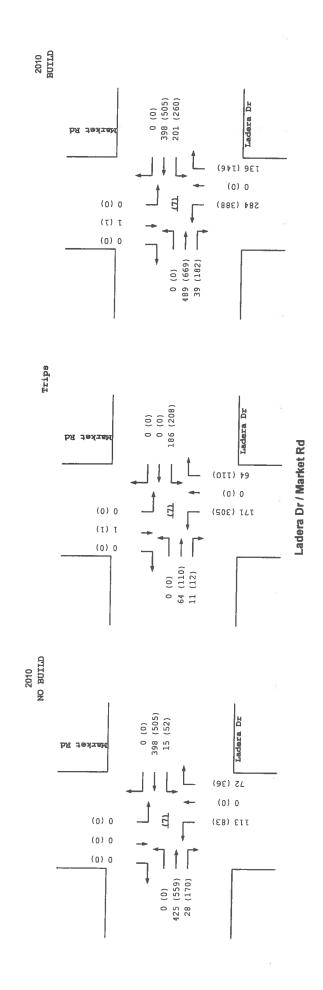
2007	ΑM	Peak	Hr.	Volumes
2007	PM	Peak	Hr.	Volumes

Eastbound (Ladera Dr)			Westbound (Ladera Dr)			North	bound (Mar	tet Rd)	Southbound (Market Rd)			
0	4	425	28	14	365	0	113	0	72	0	0	0
0		513	156	48	463	0	83	0	36	0	0	
	_									- 0		

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count

2007 PM Link Volume 453 379 185 0 2007 PM Link Volume 669 511 119 0 Based on MRCOG Model (2030 Data Set) 2005 AM Link Volume 355 355 355 0 0 0 2005 PM Link Volume 261 261 0 0 0 2030 AM Link Volume 452 1202 30 0 2030 PM Link Volume 1062 1042 47 0 Growth Rate to Apply to Existing Counts to Match 2030 Forecasts 2007-2030 AM Growth Rates -0.01% 9.44% -3.64% #DIV/0! Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2007-2030 PM Growth Rates -9.01% 9.44% -2.63% #DIV/0! Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 1.09% 9.54% #DIV/0! #DIV/0! Growth Rates 1.09% 9.54% #DIV/0! #DIV/0! #DIV/0!	2007 AM Link Volume	450			
Sased on MRCOG Model (2030 Data Set)			379	185	0
Sessed on MRCOG Model (2030 Data Set) 2005 AM Link Volume 355 355 0 0 0 0 0 0 0 0 0		669	511	119	0
2005 PM Link Volume 261 281 0 0 0 2030 AM Link Volume 452 1202 30 0 2030 PM Link Volume 1062 1042 47 0 Growth Rate to Apply to Existing Counts to Match 2030 Forecasts 2007-2030 AM Growth Rates -0.01% 9.44% -3.64% #DIV/0! 2007-2030 PM Growth Rates 2.55% 4.52% -2.63% #DIV/0! Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 1.09% 9.54% #DIV/0! #DIV/0!	Based on MRCOG Model (2030 Data Set)		X:		v
2005 PM Link Volume 261 261 0 0 0 2030 AM Link Volume 452 1202 30 0 2030 PM Link Volume 1062 1042 47 0 Growth Rate to Apply to Existing Counts to Match 2030 Forecasts 2007-2030 AM Growth Rates 2.55% 9.44% 3.64% #DIV/0! Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2007-2030 PM Growth Rates 2.55% 4.52% 2.63% #DIV/0! Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 1.09% 9.54% #DIV/0! #DIV/0!	2005 AM Link Volume	355	355	0	
2030 AM Link Volume 452 1202 30 0 0 0 2030 PM Link Volume 1062 1042 47 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2005 PM Link Volume	261			
2030 PM Link Volume 1062 1042 47 0 Growth Rate to Apply to Existing Counts to Match 2030 Forecasts 2007-2030 AM Growth Rates -0.01% 9.44% -3.64% #DIV/0! 2007-2030 PM Growth Rates 2.56% 4.52% -2.63% #DIV/0! Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 1.09% 9.54% #DIV/0! #DIV/0!	2000 48411				
Growth Rate to Apply to Existing Counts to Match 2030 Forecasts 2007-2030 AM Growth Rates -0.01% 9.44% -3.64% #DIV/01 2007-2030 PM Growth Rates 2.55% 4.52% -2.63% #DIV/01 Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 1.09% 9.54% #DIV/01 2005-2030 PM Growth Rates 1.09% 9.54% #DIV/01 2005-2030 PM Growth Rates 1.09% 9.54% #DIV/01		452	1202	30	n
2007-2030 AM Growth Rates	2030 PM Link Volume	1062	1042	47	_
2007-2030 AM Growth Rates	Growth Rate to Apply to Existing Counts to Match:	2030 Forecasts			
2007-2030 PM Growth Rates 2.55% 4.52% -2.63% #DIV/0! Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 1.09% 9.54% #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!	2007-2030 AM Growth Retes		0.4444		
Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 1.09% 9.54% #DIV/0! #DIV/0! #DIV/0! #DIV/0!				-3.64%	#DIV/0I
2005-2030 AM Growth Rates 1.09% 9.54% #DIV/0I #DIV/0I #DIV/0I	2007-2030 PM Growin Rates	2.55%	4.52%	-2.63%	#DIV/0!
2005-2030 AM Growth Rates 1.09% 9.54% #DIV/0I #DIV/0I #DIV/0I	Growth Rate to Apply to 2005 Model Volumes to M	stch 2030 Forecasts			
2005-2030 PM Growth Rates 12 298/	2005-2030 AM Growth Rates		0.5484	*****	
2003-2030 PM Growth Rates 12.28% 11.97% #DIV/0! #DIV/0! #DIV/0!				#DIV/0!	#DIV/0!
	2005-2030 PM Growth Rates	12.28%	11.97%	#DIV/0!	#DIV/0!



(9)

Projected Turning Movements Worksheet

Ladera Dr / Driveway 'A'

INTERSECTION:

E-W Street: Ladera Dr

N-S Street: Driveway 'A'

Year of Existing Counts Implementation Year

2007 2010

Growth Rates

Existing Volumes **Background Traffic Growth**

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Total AM Peak Hour BUILD Volumes

Β.		0.00%			0.00%			0.00%		0.00%				
	Easth	ound (Lade	era Dr)	West	bound (Lade	era Dr)	Northb	ound (Drive	way 'A')	Southbound (Driveway 'A')				
- [Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
	0	520	0	0	466	0	0	0	0	0	0	n n		
1	<u>0</u>	0	Q	Q	0	0	0	0	0	0	0	0		
	0	520	0	0	466	0	0	0	0	0	0	0		
Ĺ	0.00%	2.00%	25.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
	0.00%	0.00%	0.00%	0.00%	43.81%	0.00%	0.00%	0.00%	16.83%	0.00%	0.00%	0.00%		
Į.	0.00%	2.00%	22.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
	0.00%	0.00%	0.00%	0.00%	53.18%	0.00%	0.00%	0.00%	13.81%	0.00%	0.00%	0.00%		
L	0	11	144	0	171	0	0	0	65	0	0	0.0078		
sl.	0	531	144	0	637	. 0	0	0	er	0				

0.00%

1.25%

0.00%

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - P.M.) Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments Total PM Peak Hour BUILD Volumes

		0.40			010070			9.0078		U.UU7s				
		bound (Lade		West	bound (Lade	era Dr)	Northb	ound (Drive	way 'A')	Southb	ound (Drive	rav 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
	0	648	0	0	652	0	0	0	0	0	0	n		
	0	<u>58</u>	Q	Q	<u>59</u>	Q	0	0	0	0	0	0		
	0	706	0	0	711	0	0	0	0	0	0	0		
	0.00%	2.00%	25.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
	0.00%	0.00%	0.00%	0.00%	43.81%	0.00%	0.00%	0.00%	16.83%	0.00%	0.00%	0.00%		
i	0.00%	2.00%	22.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
	0.00%	0.00%	0.00%	0.00%	53.18%	0.00%	0.00%	0.00%	13.81%	0.00%	0.00%	0.00%		
i	0	12	159	0	305	0	0	0	111	0	0	0.0070		
	0	718	159	0	1,016	0	0	0	111	0	0	0		
	0	-123	123	0	33	0	0	0	52	0	0	0		
18	0	595	282	0	1,049	0	0	0	163	0	. 0	0		

Number of Commercial Trips Generated Number of Office Trips Generated

Entering Exiting 499 378 A.M. 602 P.M. 580 A.M. 20 96 P.M.

7.80%

3.00%

100% Commercial Development

100% Office Development

3.00%

2007 AM Peak Hr. Volumes

2007 PM Peak Hr. Volumes

Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northb	ound (Drive	way 'A')	Southbound (Driveway 'A')			
_ 0	520	0	0	466	0	0	0	l n	0	0	0	
0	648	0	0	852	_	-	-	-				

MRCOG Forecast Volumes Worksheet

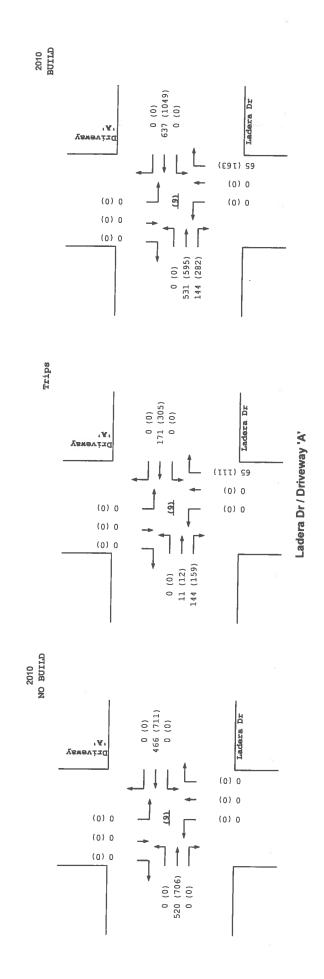
Based on 2007 Traffic Count 2007 AM Link Volume	520	466	0	
2007 PM Link Volume	648	652	ŏ	0
Based on MRCOG Model (2030 Data Set)		032	· ·	0
2005 AM Link Volume	370	327	1248	1049
2005 PM Link Volume	313	1024	1058	1246
2030 AM Link Volume	1458	848	1609	777
2030 PM Link Volume	923	1753	1389	1534
Growth Rate to Apply to Existing Counts to Match 2	030 Forecasts			
2007-2030 AM Growth Rates	7.93%	3.56%	#DIV/0!	48707/401
2007-2030 PM Growth Rates	1.85%	7.34%	#DIV/01	#DIV/01
Growth Rate to Apply to 2005 Model Volumes to Ma	tch 2030 Forecasts			
2005-2030 AM Growth Rates	11.87%	6.37%	1.16%	-1 04%

Pass-by Trip Calculations:				_			- 10					
PM Pass-by Trips		ound (Lade	era Dr)	West	ound (Lade	ra Dr)	Northbound (Driveway 'A')			Southbound (Driveway 'A')		
Percent Entering	0.00%	-46.00%	46.00%	0.00%	-18.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume Entering	0	-123		0	-48	0	0	0	0	0	0	0
Percent Exiting	0.00%	0.00%	0.00%	0.00%	28.00%	0.00%	0.00%	0.00%	18.00%	0.00%	0.00%	0.00%
Volume Exiting	0	0	0	0	81	0	0	0	52	0	0	0.0070
Net PM Passby Trips	0	-123	123	0	33	0	0	0	52	0	0	0
	Entering	Exiting								_	•	•
Pass-by Trips	0	0	AM									
	267	290	PM									

2.85%

2005-2030 PM Growth Rates

0.92%



Projected Turning Movements Worksheet

Driveway 'B' / Market Rd

INTERSECTION:

E-W Street: Driveway 'B'

(10)

Year of Existing Counts

Implementation Year

N-S Street: Market Rd 2007

2010

Growth Rates

Existing Volumes **Background Traffic Growth** Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Total AM Peak Hour BUILD Volumes

TOP		0.00%			0.00%			0.00%		0.00%			
	Eastbo	und (Drivew	ay 'B')	Westbo	ound (Drives	way 'B')	North	bound (Mari	(et Rd)	Southbound (Market Rd)			
	Left	Thru	Right	Left	Thru Right		Left	Thru	Right	Left	Thru	Right	
	0	0	0	0	0	0	0	185	0	0	42	0	
	0	0	<u>0</u>	0	0	0	0	0	Q	0	0	0	
	0	. 0	0	0	0	0	0	185	0	0	42	0	
-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.92%	0.00%	0.00%	0.00%	2.00%	33.66%	
ļ	59.64%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	
ı	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.00%	2.00%	27.61%	
	65.98%	0.00%	0.25%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	
	231	0	3	0	0	0	5	4	0	0	11	187	
8	231	0	3	0	0	. 0	5	189	0	0	53	187	

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volumes

_eft 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0.00%	Right 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0	Thru 0 0 0 0	Right 0 0 0 0	0 	Thru 119 0 119	Right 0	0 0	Thru 204	Right 0 0
			0 0 0 0,00%	0 0 0	<u>0</u>	0 0 0	0	0 <u>0</u>	0 Q	<u>0</u>	0 Q
			0 0 0,00%	0 0000	<u>0</u>	<u>0</u>	<u>0</u> 119	0	0	0	Q
			0.00%	0 000/	0	0	119	0	0		
			0.00%	0.000/					0	204	0
				U.UU76	0.00%	0.92%	0.00%	0.00%	0.00%	2.00%	33.66%
.64%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.00%	2.00%	27.61%
98%	0.00%	0.25%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
409	0	5	0	0	0	6	7	0	0		209
409	0	5	0	0	0	6	126	0	0		209
81	0	0	0	0	0	0	0	o	0	0	48
	0	5	0	. 0	0	6	126	0	. 0	216	257
	81	409 0	409 0 5 81 0 0	409 0 5 0 81 0 0 0	409 0 5 0 0 409 0 5 0 0 81 0 0 0 0	409 0 5 0 0 0 409 0 5 0 0 0 81 0 0 0 0 0	409 0 5 0 0 0 6 409 0 5 0 0 0 6 81 0 0 0 0 0 0 0	409 0 5 0 0 0 6 7 409 0 5 0 0 0 6 128 81 0 0 0 0 0 0 0	409 0 5 0 0 0 6 7 0 409 0 5 0 0 0 8 126 0 81 0 0 0 0 0 0 0 0	409 0 5 0 0 0 6 7 0 0 409 0 5 0 0 0 6 126 0 0 81 0 0 0 0 0 0 0 0	409 0 5 0 0 0 6 7 0 0 12 409 0 5 0 0 0 6 126 0 0 216 81 0 0 0 0 0 0 0 0 0 0

Number of Commercial Trips Generated

Number of Office Trips Generated

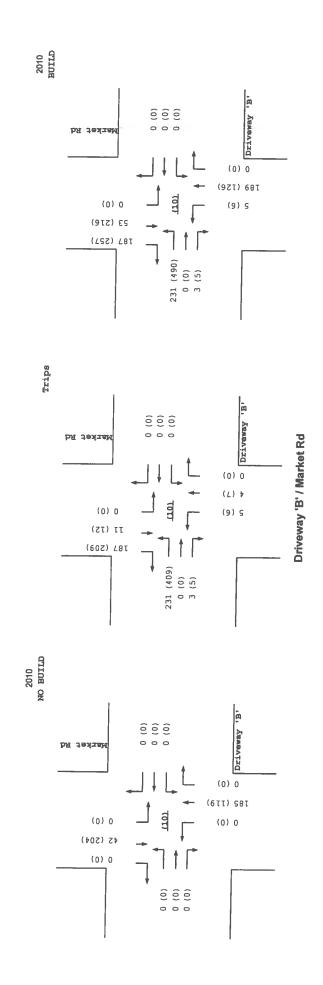
Entering Exiting A.M. P.M. 68 9 A.M.

100% Commercial Development

20 96 P.M. 100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Eastbour	nd (Driveway 'I	3")	Westbound	(Driveway	B')	Northbo	und (Market I	Rd)	Southbound (Market Rd)			
0	0	0	0	0	0	0	185	0	0	42	0	
0	0	0	0	0	0	0	119	0	0	204	0	



Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2010) - 100% Development

Case R - RI, RO only at Intersection 12

INTERSECTION:

Summary

<u>Hanover</u>	<u>Rd /</u>	Driveway	<u>'C'</u>
			_

3.0% Truck Existing (2007)

2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

	0.85			0.85			0.85			0.85	PHF
	ound (Hanov	er Rd)	Westbo	ound (Hanov	er Rd)	Northbo	und (Drivey	vay 'C')	Southbo	und (Drive	
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	11	0	0	0	7	- 0	
	0.85			0.85			0.05		/	0	U

		0.83			0.85			0.85			0.85	PHF
	Eastbo	ound (Hanov	er Rd)	Westb	ound (Hano	ver Rd)	Northb	ound (Drive	way 'C')	Southb	ound (Drive	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
_	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	11	0	0	0	12	0	0

Driveway 'D' / Unser Blvd

(12)

3.0% Truck Existing (2007)

2010 (NO BUILD - A.M.)

2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

_		0.85			0.85			0.85			0.85	PHF
_	Eastbo	und (Drivew	ray 'D')	Westbe	ound (Drivey	way 'D')	Northb	ound (Unse	r Blvd)	Southb	ound (Unse	r Rhyd)
_	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	701	0	0	1,588	0
	0	0	0	0	0	0	0	797	0	0	1.806	0
_	0	0	0	0	0	80	0	797	216	0		0
-		0.85				- 00	U		210	U	1,950	
_		0.85			0.85			0.95			0.95	DHE

	0.85			0.85			0.95			0.95	PHF
	und (Drivew	-4	Westbo	und (Drivey	vay 'D')	Northb	ound (Unse	r Blvd)	Southb	ound (Unse	r Blvd)
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	1,520	0	0	966	0
0	0	0	0	0	0	0	1,709	0	0	1.086	0
0	0	0	0	0	295	0	1,613	327	0	1,426	0

Projected Turning Movements Worksheet

Hanover Rd / Driveway 'C'

0.00%

INTERSECTION:

E-W Street: Hanover Rd

Driveway 'C'

(11)

Year of Existing Counts

Background Traffic Growth

2007

Implementation Year

Existing Volumes

2010

Growth Rates

N-S Street:

0.00% Eastbound (Hanover Rd) Westbound (Hanover Rd) Northbound (Driveway 'C') Left Thru Right Southbound (Driveway 'C') Left Thru Right Left Right Left Thru Right 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 1.91% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 1.91% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 1.25% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 1.25% 0.00% 0.00% 0 Total AM Peak Hour BUILD Volumes 0 0 0 0 11 0 0 0

0.00%

Existing Volumes Background Traffic Growth

- Total Trips Generated

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering)

Percent Commercial Trips Generated(Exiting)

Percent Office Trips Generated(Entering)

Percent Office Trips Generated(Exiting)

Total Trips Generated

Total PM Peak Hour BUILD Volume

		ound (Hanov	er Rd)	Westb	ound (Hano	ver Rd)	Northb	ound (Drive	way 'C')	Southb	ound (Drive	way 'C')
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	0	0	0	0	0
	Q	0	0	<u>0</u>	0	0	Q	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.91%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%
Ĺ	Ó	0	0	0	0	11	0	0	0	12	0	0
88	_ 0	0	0	0	0	11	0	. 0	0	12	0	0

Number of Commercial Trips Generated

Number of Office Trips Generated

Entering Exiting 499 A.M. P.M. 378 602 580 68 9 A.M.

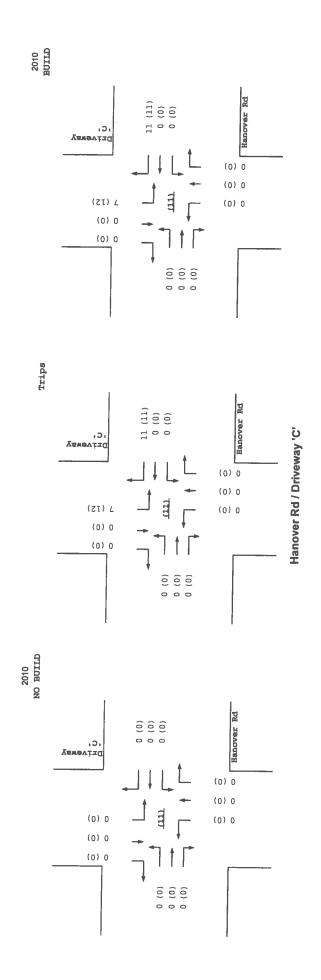
100% Commercial Development

100% Office Development P.M. 96

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

Eastbo	ound (Hanov	rer Rd)	Westbo	und (Hanov	er Rd)	Northb	ound (Drive	way 'C')	Southbe	ound (Driver	av 'C')
0	0	0	_ 0	0	0	0	0	0	01	Ol	Ω
0	0	0	0	0	0	0	0	0	0	0	0

A - 87



Projected Turning Movements Worksheet Driveway 'D' / Unser Blvd

INTERSECTION:

E-W Street: Driveway 'D' N-S Street: Unser Blvd

(12)

Year of Existing Counts

Implementation Year

2007

2010

Growth Rates

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - A.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

Total Trips Generated **Total AM Peak Hour BUILD Volumes**

_												
S		0.00%			0.00%			4.58%			4.58%	
		rund (Drives		Westb	ound (Drive	way 'D')	North	ound (Unse	r Blvd)	South	ound (Unse	r Blvd)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	701	0	0	1,588	0
	0	0	0	<u>0</u>	0	0	0	96	0	0	218	0
i	0	0	0	0	0	0	0	797	0	0	1.806	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.91%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	20.70%	0.00%	0.00%	0.00%	0.00%	36,91%	0.00%
ļ	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.95%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	18.69%	0.00%	0.00%	0.00%	0.00%	46.95%	0.00%
Į	0	0	0	0	0	80	0	0	216	0	144	0
8	0	0	0	0	0	80	0	797	216	0	1.950	0

 Existing Volumes **Background Traffic Growth**

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated

Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volume

		0.00%			0.00%			4.15%			4.15%	
		ound (Driver		Westb	ound (Drive	vay 'D')	Northb	ound (Unse	r Blvd)	South	ound (Unse	r Blvd)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	1,520	0	0	966	0
	0	0	0	0	0	Q	Q	189	0	0	120	0
	0	0	0	0	0	0	0	1,709	0	0	1,086	0
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.91%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	20.70%	0.00%	0.00%	0.00%	0.00%	36.91%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	46.95%	0.00%	0.00%	0.00%
	0.00%	0.00%	0.00%	0.00%	0.00%	18.69%	0.00%	0.00%	0.00%	0.00%	46.95%	0.00%
	0	0	0	0	0	138	0	0	231	0	259	0.007.0
	0	0	0	0	0	138	0	1,709	231	0	1,345	0
	0	0	0	0	0	157	0	-96	96	0	81	o
105	0	0	0	. 0	0	295	0	1,613	327	0	1,426	. 0

Number of Commercial Trips Generated

Entering Exiting 602 580 Number of Office Trips Generated 68 9

100% Commercial Development

20

100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

ĺ	Eastbou	ind (Drives	vay 'D')	Westb	ound (Drivew	ray 'D')	Northb	ound (Unse	r Blvd)	South	ound (Unse	er Blvd)
	0	0	0	0	0	0	0	701	0	0	1,588	0
	0	0	0	. 0	0	0.	0	1,520	0	Ö	966	0

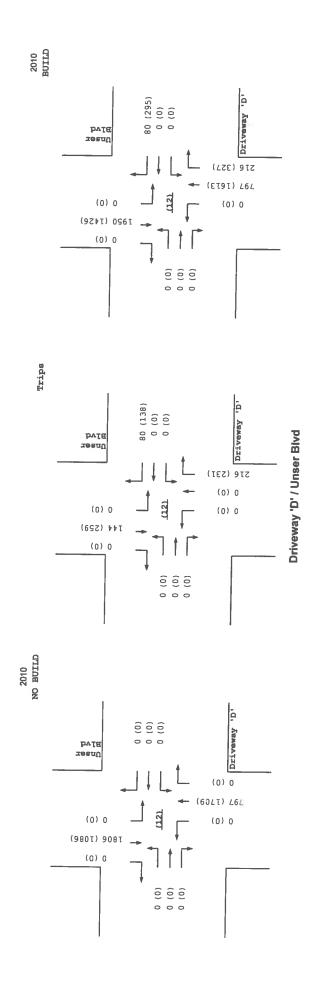
Pass-by Trip Calculations: PM Pass-by Trips Eastbound (Driveway 'D') Westbound (Driveway 'D') Northbound (Unser Blvd) Southbound (Unser Blvd) Percent Entering 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% -36.00% 36.00% 0.00% 0.00% Volume Entering 0 0 -96 96 0 0 Percent Exiting 0.00% 0.00% 0.00% 0.00% 0.00% 54.00% 0.00% 0.00% 0.00% 28.00% 0 00% Volume Exiting 157 0 0 81 Net PM Passby Trips 0 0 157 -96 Entering Exiting Pass-by Trips O AM 267 290 PM

P.M.

A.M.

P.M.

96



Timings

2: Ladera Dr & Unser Blvd	ser Blvd	_							۳	erry O.	Terry O. Brown, P.E.	P.E.
				l							12/25	12/29/2007
	1	†	7	1	ţ	1	—	•	٨	→	7	
Lane Group	EBI		EBR	WBL	WBT	E E	NBT	MBR	6	TOS	000	COSTUM
Lane Configurations	F	‡	N. N.	15	4	N.	*	*	4	*	VON.	
Volume (vph)	199	498	557	686	186	53	704	378	20.	1270	- \$	
um Type	pm+pt		pm+ov	Prot		Prot		Dm+no	Prod	270	3	
Protected Phases	7	4	5	9	80	2	2	3	5	ď	VOTING V	
Permitted Phases	4		4					00		3	- 0	
Defector Phases	7	4	ro.	3	89	ıa	2	1 (*)	-	d	4 0	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		50.	200		
Minimum Spitt (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0		10.0	2.0	0.0	
Total Split (s)	19.0	21.0	10.0	31.0	33.0	10.0	43.0		15.0	40.0	20.0	
Total Split (%)	17.3%	19.1%	9.1%	28.2%	30.0%	9.1%	39 196	28 294	12 000	40.0	19.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	•	2.0 A D	45.0%	2.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0		100	200	5 6	
Lead/Lag	Lead	Lad	Lead	Lead	- 20	pad	0		1 200	2	2	
Lead-Lag Optimize?			Ŋ		D		20		read	8	Lead	
Recall Mode	Min	Min	Min	Min	Min	Min	May	Min	Mono	Man		
Act Effet Green (s)	32.9	18.0	28.0	28.0	31.1	7.0	40.2	71.2	11 8	MEX	MIN	
Actuated g/C Ratio	0.30	0.16	0.25	0.25	0.28	0.06	0.37	0.65	2 7 7	0.44	0 62.0	
vic Ratio	0.59	1.00	06.0	1.00	0.41	0.89	0.65	0.43	0.62	5 5	0.00	
Control Delay	27.7	83.3	55.4	72.9	20.8	89.8	31.9	10.6	240	27.3	3.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	000	200	7 0	
Total Delay	27.7	83.3	55.4	72.9	20.8	89.8	31.9	10.6	240	57.5	2 0	
507	O	14.	ш	ш	O	L	O		2	5 H	7.7	
		62.1			55.8		33.1	1	3	53.4	•	
Approach LOS		ш			Ш		O			0		
The second secon	Contract Section 1	110										

Intersection LOS: D Intersection Signal Delay, 51.0 Intersection Capacity Utilization 86.7% Analysis Period (min) 15 Natural Cycle: 110 Control Type: Semi Act-Uncoord Maximum v/c Ratio: 1,00 Actuated Cycle Length: 110

F 83 Splits and Phases: 2: Ladera Dr & Unser Blvd 43 s 10: 10: ē

HCM Signalized Intersection Capacity Analysis 2: Ladera Dr & Unser Blvd

Terry O. Brown, P.E. 12/29/2007

Fight Figh				•	-		,	_	_		•	•	7
1900 1800	Movement	B	EBT	ER	WELV	WBT	WRR	MEN	TOW	AIDO	100	100	-
1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1000	Lane Configurations	15	\$	R	×	**		1	ight	MON	100	200	3
1,00	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	169	t of	-80	F 1007	‡	
1.00 0.95 0.98 0.97 0.95 0.97 0.95 1.00 0.97 0.95 0.97 0.95 0.98 0.97 0.95 0.97 0.95 0.97 0.95 0.97 0.95 0.97 0.95 0.97 0.95 0.99 0.95 0.99 0.99 0.99 0.99 0.99	Total Lost time (s)	3.0	3.0	3.0	3.0	30	3	3 6	36	300	3	38	190
1.00 1.00 0.035 1.00 0.94 0.097 0.097 0.097 0.095 0.09	Lane Util. Factor	1.00	0.95	0.88	0 07	0.06		200	200	3.0	3.0	3.0	3.0
0.85 1.00 1.00 0.95 1.00 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0	Ŧ	00.	100	0.85	5	200		100	200	3.0	0.97	0.95	1.00
1752 3565 2760 3400 3400 3505 1568 3400 3505	Fit Protected	0.85	100	8	200	4 5		3 6	3 3	0.85	.00	8	0.85
Color Colo	Satd. Flow (prof.)	1752	3505	2700	2400	300		CA.	9.	9	0.85	1.00	1.00
198 498 557 686 196 140 163 1704 150	Fit Permitted	200	200	200	200	3286		3400	3202	1568	3400	3505	1568
1894 4986 2470 3286 1588 3400 3505 1588 3400 3505 1588 3400 3505 1588 3400 3505 1588 3400 3505 1588 3400 3505 1588 3400 3505 1588 3400 3505 1588 3400 3505 1588 3400 3505 1378 1388	Satd. Flow (nerm)	800	25.05	370	000	30.0		0.30	8	1.00	0.95	1.00	1.00
184 184 184 184 184 184 185 185 185 185 187	Volume (amh)	3 5	2000	2/2	3400	3200		3400	3505	1568	3400	3505	1568
Color Colo		200	900	200	999	200	5	1 63	200	376	201	1279	105
1,229 572 640 988 248 177 192 828 442 226 1437 229 572 628 888 308 0 192 828 433 226 1437 1	5	0.0	0.87	0.87	0.79	0.79	0.79	0.85	0.85	0.85	0.89	0.89	0.89
1	DIOD Deduction (1971)	877	272	640	898	248	171	182	828	442	226	1437	118
1,229 572 628 868 308 0 192 828 433 226 1437	A I OK Reduction (vpn)	0	0	12	0	117	0	0	0	o	0	0	24
Print-bit Print-bit Prot	Larie Group Flow (vpn)	228	272	828	888	308	0	192	828	433	228	1437	2
7 4 5 3 8 5 2 3 1 6 28.8 16.0 21.0 26.0 28.1 5.0 38.2 64.2 9.8 43.0 32.9 18.0 25.0 28.0 31.1 7.0 40.2 68.2 11.8 45.0 0.30 0.18 0.25 0.26 0.28 0.06 0.37 0.82 0.11 0.41 65.0 50 <	lum lype	pm+pt		VO+mc	Prot			Prot		70+mc	Prot	1	10+65
28.9 16.0 21.0 28.1 5.0 38.2 64.2 9.8 43.0 32.9 18.0 21.0 28.0 31.1 7.0 40.2 64.2 11.8 45.0 32.9 18.0 22.0 28.0 31.1 7.0 40.2 64.2 11.8 45.0 32.0 0.16 0.23 0.26 0.28 0.08 0.37 0.62 0.11 0.41 33.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 33.8 574 703 865 929 2.16 1281 1015 36.1 0.10 0.07 0.07 0.08 0.08 0.06 0.24 0.11 0.07 0.04 0.10 0.07 0.07 0.08 0.08 0.08 0.04 0.01 0.07 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.24 54.0 72.4 31.4 63.7 52.5 0.3 3.1 24.3 0.24 54.0 54.0 54.0 54.0 54.0 55.0 0.26 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.37 0.38 0.38 0.38 0.38 0.38 0.38 0.38 0.38 0.39 0.30 0.30 0.30 0.30 0.30 0.39 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30 0.30	Protected Phases	1	4	S	e	80		S	8	6	-	8	7
28.9 16.0 21.0 28.0 28.1 5.0 38.2 64.2 9.8 43.0 32.9 18.0 25.0 25.0 25.0 5.0	Fermilled Phases	4		4						2			. (
32.8 18.0 25.0 28.0 31.1 7.0 40.2 68.2 11.8 45.0 0.30 0.16 0.23 0.25 0.28 0.28 0.08 0.37 0.82 0.11 0.41 0.50 0.16 0.23 0.25 0.28 0.08 0.37 0.82 0.11 0.41 0.41 0.20 0.30 0.16 0.28 0.09 0.06 0.24 0.11 0.07 0.41 0.10 0.10 0.10 0.10 0.10 0.10 0.10	Actuated Green, G (s)	28.9	16.0	21.0	26.0	28.1		5.0	38.2	64.2	9.8	43.0	55.0
0.30 0.16 0.23 0.26 0.28 0.06 0.37 0.62 0.11 0.41 0.41 0.41 0.42 0.26 0.26 0.06 0.37 0.62 0.11 0.41 0.41 0.41 0.41 0.41 0.41 0.41	Errective Green, g (s)	32.9	18.0	25.0	28.0	31.1		7.0	40.2	68.2	11.8	45.0	50.0
5.0 5.0 <td>Actuated g/C Ratio</td> <td>0,30</td> <td>0,16</td> <td>0.23</td> <td>0.25</td> <td>0.28</td> <td></td> <td>90.0</td> <td>0.37</td> <td>0.82</td> <td>0 11</td> <td>0.44</td> <td>O EA</td>	Actuated g/C Ratio	0,30	0,16	0.23	0.25	0.28		90.0	0.37	0.82	0 11	0.44	O EA
3.0 3.0	Clearance I ime (s)	2.0	2.0	2.0	2.0	5.0		5.0	5.0	20	2	4	3
389 574 703 865 929 216 1281 1015 365 1434 0.08 co.18 co.08 co.28 0.09 0.06 0.24 0.11 co.07 co.41 0.10 0.58 1.00 0.88 1.00 0.33 0.28 0.06 0.24 0.11 co.07 co.41 0.58 1.00 0.88 1.00 0.33 0.28 0.66 0.42 0.11 co.07 co.41 0.58 1.00 0.88 1.00 0.33 0.28 0.65 0.43 0.82 1.00 0.31 1.46 0.10 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	30	30	9 6	0.0
0.08	Lane Grp Cap (vph)	389	574	703	865	929		216	1281	1015	38.	1434	200
0.10 0.17 0.03 0.89 0.65 0.43 0.82 1.00 0.83 0.80 0.65 0.43 0.82 1.00 0.83 0.80 0.65 0.43 0.82 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	v/s Ratio Prot	0.08	80,18	90.00	60.28	0.09		900	0 24	0 44	300	5 5	000
0.58 1.00 0.88 1.00 0.33 0.89 0.65 0.41 0.81 1.00 1.00 1.00 1.00 1.00 1.00 1.0	v/s Ratio Perm	0.10		0.17				3	2	0 47	3	50.41	5 6
31.1 46.0 41.2 41.0 31.2 51.1 28.0 01.8 97.2 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0	wc Ratio	0.59	1.00	0.89	1.00	0.33		0.89	0.85	0.43	000	5	0.03
1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Uniform Delay, d1	31.1	46.0	41.2	41.0	31.2		51.1	29.0	10.5	47.0	3.5	4,00
2.3 36.4 13.7 31.4 0.2 32.6 2.5 0.3 31.2 4.3 33.4 82.4 54.9 72.4 31.4 83.7 31.5 11.1 50.1 56.8 62.4 56.9 72.4 31.4 83.7 31.5 11.1 50.1 56.8 E C F C B D E C C C B D E C C C C C C C C C C C C C C C C C C	Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	100	2 5	9 9	25.5	5 5
33.4 82.4 54.9 72.4 31.4 83.7 31.5 11.1 56.1 56.8 C F D E C F C B D E C C C B D E C C C C B D E C C C C C C C C C C C C C C C C C C	Incremental Delay, d2	2.3	36.4	13.7	31.4	0.2		32.6	25	03	2 4	24.2	3 6
C F D E C F C B D E C	Delay (s)	33.4	82.4	54.9	72.4	31.4		83.7	315	11 1	50.5	50.0	200
62.4 59.0 32.2 5 E E C C Delay 51.4 HCM Level of Service D ity ratio 0.96 (s) 110.0 Sum of lost time (s) 6.0 ititation 88.7% iCU Level of Service E	Level of Service	ပ	щ	۵	ш	O		ш	C	α	3	3 11	Ď.
Delay 51.4 HCM Level of Service D (s) 110.0 Sum of lost time (s) 6.0 Hidzelon 88.7% KDL Level of Service E	Approach Delay (s)		62.4			58.0		SALPHY	33.5	STREET, S	3	820	0
Delay 51.4 HCM Level of Service tty ratio 0.86 Sum of lost time (s) (s) 110.0 Sum of lost time (s) titlization 86.7% ICU Level of Service 15	Approach LOS		ш			ш			0			07.9	
Delay 51.4 HCM Level of Service thy ratio 0.96 Sum of lost time (s) (s) 110.0 Sum of lost time (s) titization 86.7% KCU Level of Service 15	Intersection Summary		MATERIAL SECTION OF SECTION SE	STATE OF	STATISTICS.	SECTION.		SERVER	SHOREGIS	SERVER	200000000000000000000000000000000000000	SPACING	SPACES
110.0 Sum of lost time (s) 86.7% ICU Level of Service 15	HCM Average Control Do HCM Volume to Capacity	elay y ratio		51.4	Ĭ	CM Lev	el of Ser	vice		0			
15 RULLENGE OF SERVICE	Actuated Cycle Length (s	S)		110.0	ઝ 9	of form	st time ((S.	WEEKING BE	0.9			
	Analysis Period (min)			15	5		200	8		ш			

2010 AM Peak BUILD Conditions - MITIGATED Case R - Right-in, right-out access at Intersection 12 D:ATOBE/PROJECTS/Heritage_Neighborhood_Marketplace_Ladera_Unser/CaseR/2010AB_Mit_R.sy7 2010 AM Peak BUILD Conditions - MITIGATED Case R - Right-in, right-out access at Intersection 12 D:\ATOBE\PROJECTS\Herriage_Neighborhood_Marketplace_Ladera_Unser\CaseR\2010AB_Mit_R.sy7

	*	-	7	1	-	•		†	-	-	Ţ	1
Movement	EBL	EBT	EBF	R WBL	WBT	WBF	R NBL	NBT	NBR	SBL	SBT	SBI
Lane Configurations	100	† }		7	Name and Address of the Owner, where the Owner, which the Owner, where the Owner, which the		k	THE RESERVE AND ADDRESS OF THE PARTY OF THE	THE REAL PROPERTY.		4	CDI
Sign Control		Free		Maria A	Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	489	39	201	398	C	284	0		0	1	(
Peak Hour Factor	0.88	0.88	0.88	0.79	0.79				0.86	0.85	0.85	0.85
Hourly flow rate (vph) Pedestrians	0	556	44	254	504	0		0	158	0	1	0.00
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								Raised		Section 1	Raised	
Median storage veh)								1		ASSOCIATION OF	1	
Upstream signal (ft)		888						NEW YORK			TO BE	
pX, platoon unblocked												
C, conflicting volume	504			600			1339	1590	300	1449	1613	252
C1, stage 1 conf vol							578	578	000	1013	1013	202
/C2, stage 2 conf vol							761	1013		436	600	
Cu, unblocked vol	504			600			1339	1590	300	1449	1613	252
C, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
C, 2 stage (s)							6.6	5.6	1.0	6.6	5.6	1.0
F (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
00 queue free %	100			74			0	100	77	100	99	100
M capacity (veh/h)	1050			966			190	173	693	110	140	745
Direction, Lane #	EB 1	EB 2	EB 3	WB1	WB 2	WB ₁ 3	NB 1	NB 2	SBa		74G-19190	
olume Total	0	370	230	254	336	168	330	158	1		denna ma	
/olume Left	0	0	0	254	0	0	330	0	0			
/olume Right	0	0	44	0	0	0	0	158	Ö			
SH	1700	1700	1700	966	1700	1700	190	693	140			
olume to Capacity	0.00	0.22	0.14	0.26	0.20	0.10	1.74	0.23	0.01			
Queue Length 95th (ft)	0	0	0	26	0	0	573	22	1			
Control Delay (s)	0.0	0.0	0.0	10.1	0.0	0.0	395.9	11.7	31.0			
ane LOS		a San Guller	EMPLOYED BY	В	0.0	0.0	F	B	D			
pproach Delay (s)	0.0			3.4			271.5		31.0			
pproach LOS				0.1			F		D			
tersection Summary				3/12/14/19						TEST CARE	u en com	STATES OF
verage Delay			73.2		1000000				114 (4) (4)			50.749
Itersection Capacity Uti Itersection Capacity Uti Itersection Capacity Uti	lization	5	58.3% 15	IC	U Leve	of Ser	vice		В			

	-	-	•	•	4	-	
Movement	EBIT	EBF	R WBL	WBT	NBL	NBR	
Lane Configurations	47+	And in concession, where the party was not to provide the party of the		† †	The second second	7	
Sign Control	Free			Free	Stop	Service Service	
Grade	0%			0%	0%		
Volume (veh/h)	531	144	0		0	65	CALL THE SECTION OF T
Peak Hour Factor	0.79	0.79			0.85	0.85	
Hourly flow rate (vph)	672	182			0	76	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)	481						
pX, platoon unblocked			0.88		0.88	0.88	
vC, conflicting volume			854		1166	427	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			702		1056	218	
tC, single (s)			4.2		6.9	7.0	
C, 2 stage (s)							
F (s)			2.2		3.5	3.3	
00 queue free %			100		100	89	
cM capacity (veh/h)			781		193	691	
Direction, Lane#	EB 1	EB 2	WB 1	WB 2	NB 1	AT SHE ONLY	
/olume Total	448	406	403	403	76		
/olume Left	0	0	0	0	0		
/olume Right	0	182	0	0	76		
SH	1700	1700	1700	1700	691		
/olume to Capacity	0.26	0.24	0.24	0.24	0.11		
Queue Length 95th (ft)	0	0	0	0	9		
Control Delay (s)	0.0	0.0	0.0	0.0	10.9		
ane LOS					В		
approach Delay (s)	0.0		0.0		10.9		
pproach LOS					В		
tersection Summary							
verage Delay			0.5		tir and and		
ntersection Capacity Util	lization		30.0%	IC	U Level	of Service	A
nalysis Period (min)			15	1111	and real blanch		

	1	-	1	†	+	1	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	14			व	7.		
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Volume (veh/h)	231	3	5	189	53	187	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.86	0.86	
Hourly flow rate (vph)	272	4	6	222	62	217	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	404	170	279				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	404	170	279				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	55	100	100				
cM capacity (veh/h)	598	871	1278				
Direction, Lane#	EB 1	NB 1	SB 1	MAN TO SERVE	VALUE AND		
Volume Total	275	228	279				
Volume Left	272	6	0				
Volume Right	4	0	217				
cSH	600	1278	1700				
Volume to Capacity	0.46	0.00	0.16				
Queue Length 95th (ft)	60	0	0				
Control Delay (s)	16.0	0.2	0.0				
ane LOS	C	Α					
Approach Delay (s)	16.0	0.2	0.0				
Approach LOS	С						
ntersection Summary							
Average Delay			5.7				
ntersection Capacity Uti	lization	3	34.0%	ICI	Level	of Service	Δ
Analysis Period (min)			15		- 40101	J. 001 1100	

	•	-	4		-	4	
Movement	EBL	_ EBT	WBT	WBR	SBL	SBR	
Lane Configurations		स	4		W		Committee of the second of the
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Volume (veh/h)	C	0 0	0	11	7	0	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	
Hourly flow rate (vph)	0	0	0	13	8	0	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	13				6	6	
vC1, stage 1 conf vol						A SHOULD .	
vC2, stage 2 conf vol							
vCu, unblocked vol	13				6	6	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)							
tF(s)	2.2				3.5	3.3	
p0 queue free %	100				99	100	
cM capacity (veh/h)	1599				1012	1073	
Direction, Lane #	EB 1	WB 1	SB 1				
Volume Total	0	13	8		Ballet !		
Volume Left	0	0	8				
/olume Right	0	13	0				
SH	1700	1700	1012				
/olume to Capacity	0.00	0.01	0.01				
Queue Length 95th (ft)	0	0	1				
Control Delay (s)	0.0	0.0	8.6				
ane LOS			Α				
Approach Delay (s)	0.0	0.0	8.6				
Approach LOS			Α				
ntersection Summary					NIST.		76.7
verage Delay			3.3				
ntersection Capacity Uti	lization	1	3.3%	ICI	U Level	of Service	ce A
analysis Period (min)			15			THE TOTAL STREET	

	1	4	†	-	-						
Movement	WBL	WBR	NBT	NBR	SBL	SBT				TO SECTION AND ADDRESS.	A STREET
Lane Configurations		74	^ ^^			444					
Sign Control	Stop		Free			Free					
Grade	0%		0%			0%					
Volume (veh/h)	0	80	797		0						
Peak Hour Factor	0.85	0.85	0.85		0.85						
Hourly flow rate (vph)	0	94	938	254	0						
Pedestrians											
Lane Width (ft)											
Walking Speed (ft/s)											
Percent Blockage											
Right turn flare (veh)											
Median type	Raised										
Median storage veh)	1										
Upstream signal (ft)						970					
pX, platoon unblocked						0,0					
vC, conflicting volume	1702	313			1192						
vC1, stage 1 conf vol	938										
C2, stage 2 conf vol	765										
Cu, unblocked vol	1702	313			1192						
C, single (s)	6.9	7.0			4.2						
C, 2 stage (s)	5.9										
F (s)	3.5	3.3			2.2						
00 queue free %	100	86			100						
cM capacity (veh/h)	208	680			576						
Olfection, Lane #	WB1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3			e e e e e e e e e e e e e e e e e e e
/olume Total	94	313	313	313	254	765	765	765			
/olume Left	0	0	0	0	0	0	0	0			
/olume Right	94	0	0	0	254	0	0	0			
SH	680	1700	1700	1700	1700	1700	1700	1700			
olume to Capacity	0.14	0.18	0.18	0.18	0.15	0.45	0.45	0.45			
Queue Length 95th (ft)	12	0	0	0	0	0	0	0.40			
Control Delay (s)	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
ane LOS	В					0.0	0.0	0.0			
pproach Delay (s)	11.1	0.0				0.0					
pproach LOS	В					0.0					
tersection Summary							95365				C145-1
verage Delay		7 2 - 10	0.3								200000
itersection Capacity Ut	lization	4	1.0%	IC	U Leve	of Serv	rice		Δ		
nalysis Period (min)			15	entropy and the							

Terry O. Brown, P.E. 2: Ladera Dr & Unser Blvd

alized Inters	2: Ladera Dr & Unser Blvd

12/29/2007

Capacity Analysis

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Brown,	12/20
Ö	
Terry	

1900 3.0 1.00 0.85 1.00 1568 1.00 1568 333 0.96 347 347 35 347

1132

pm+ov

Prot

0 88

1004

339 pm+ov

1087 0.96 1132

372 0.96 388

278 0.93 300

0.934 3400

28.93

381 0.93 410

417 182 0.93 206

\$000 3.0 1.00 1.00 1.00 3505 3505 3505

3.0 3.0 1.00 1.00 3.400 3.400 3.400

3.0 1.00 1.00 1.00 1.00 1.568

1900 WBR

3.0 1.00 1.00 3400 0.85 0.95 607 639

1900 3.0 3.0 3.0 3.0 1.00 3.316 4.86 0.93 3.316 4.86 0.93 6.93 6.53 6.53

3.0 3.0 1.00 1.00 3400 0.95

3.0 3.0 0.88 0.85 1.00 2760 1.00 2760

3.0 1.00 1.00 1.00 1.00 3505 3505

3.0 1.00 1.00 1.752 0.23

47.7 5.0 5.0 3.0 7.17 0.05 0.15 0.15 0.44 23.8 1.00 0.4

74.0 78.0 0.66 5.0 5.0 0.17 0.17 0.30 0.30 0.30 0.30 1.30 1.00 1.53 1.53

36.7 39.7 5.0 3.0 3.0 985 9.0 9.0 1.00 1.00 0.2 30.4 0.2

262 0.09 0.12 0.78

36.0 38.0 0.32 5.0 3.0 1113

48.0 48.0 5.0 3.0 1406 60.46

22.0 22.0 5.0 3.0 625 625

32.0 0.28 5.0 3.0 5.0 5.0 5.0 5.0 5.0

27.4 31.4 0.26 5.0 3.0

3.0 341

12.0

Signature EBL EBR WBL WBT NBL Signature		1	1	1	1	ļ	•	←	•	٨	→	•	
ons 192 381 322 834 496 607 1524 708 372 1087 333 1084 81	Lane Group	EBI	EBT	EBR	WBL	WBT	N	NET	MAR	ĕ	Too	000	100
182 381 322 824 496 807 1524 708 372 1087 1088 1	Lane Configurations	*	۱.	N.	N. A.	44	K	1		3	100	NOO.	Movement
Pun+pt	Volume (vph)	192	100	322	934	496	807	1624	70°	בננ	Ļģ		Lane Configurations
s 7 4 5 3 8 10 PITORI LOST time (s) s 4	Tum Type	pm+pt		Dm+ov	Prot		Part D		201	7 1		223	(deal Flow (uphpl)
S	Protected Phases	7	A	K		a	5 4	•	ADLING	Ž,	_	70+mc	Total Lost time (s)
10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0	Permitted Phases	4		4	,	0	0	7	70		00	7	Lane Util. Factor
5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Detector Phases	7	4	147	57.	œ	ĸ	c	7 6	•		9	Fr
10.0 21.0 10.0 10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0 10.0 21.0 21	Minimum Initial (s)	5.0	5.0	5.0			מ כ		2 0		0 0	1	Fit Protected
17.0 21.0 25.0 33.0 37.0 21.9 10.0 10.0 11.0 10.0 11.0 10.0 11.0 10.0 11.0 10.0 11.0 10.0 11.0 1	Minimum Spitt (s)	10.0	21.0	10.0			200		0.0		0.0	0.0	Satd. Flow (prot)
14.2% 17.5% 20.8% 20.8% 42.5% 27.5% 10.50 15.0 15.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 17.0 23.0 23.0 23.0 23.0 23.0 23.0 23.0 23	Total Solit (s)	17.0	210	25.0			0.0	э.	0.0	_	21.0	10.0	Fit Permitted
1.0 1.0	Total Spile (90)	44.00	27.70	0.02		_	72.0	_ 7	33.0	_	41.0	17.0	Safri Flow (norm)
4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	(R) made spine	14.2%	9,07	20.8%			20.8%	ıΩ	27.5%	1/22	34.2%	14.2%	Card. Lion (parill)
1.0 1.0	reliow (Ime (s)	4.0	4.0	4.0		_	4.0		40	_	40	40	Volume (vph)
Lead Leg Lead	Alf-Red Time (s)	1.0	1.0	1.0		-	1.0		10		9 9	2 0	Peak-hour factor, PHF
Min	Lead/Lag	Lead	Lad	Lead		٠.	peo		Pool		2	2	Adj. Flow (vph)
Min Min Min Min Min Min Min Min Max Min Min Max Min Min Max Min	Lead-Lag Optimize?					_			רפפת		E G	Lead	RTOR Reduction (vph)
5) 31.4 17.7 42.7 30.0 34.0 22.0 48.0 8.0 10.0 12.0 38.0 54.7 10.0 12.0 13.8 10.0 13.8 10.0 13.0 13.8 10.0	Recall Mode	Min	Min	Min	Min	Min	Min	May	Min	Min	Mari	100	Lane Group Flow (vph)
io 0.26 0.15 0.36 0.25 0.28 0.18 0.40 0.68 0.10 38.0 34.7 0.70 0.79 0.79 0.36 0.25 0.25 0.28 0.18 0.40 0.68 0.10 0.46 0.79 0.36 1.18 0.83 1.02 1.14 0.70 1.14 1.02 0.46 0.10 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Act Effet Green (s)	31.4	17.7	427	30.0	34.0	22.0	400	0.0	THE COL	Max	MIN	Tum Type
0.78 0.79 0.35 1.18 0.38 1.02 0.44 0.08 0.10 0.32 0.45 0.79 0.79 0.35 1.18 0.38 1.02 0.44 0.70 0.49 0.30 0.40 0.30 0.00 0.00 0.00 0.00 0.00	Actuated o/C Ratio	0.26	0.15	98.0	200	200	9 40	10.0	0.10	12.0	28.0	54.7	Professor Phases
51.1 61.2 28.5 132.3 43.8 90.2 108.6 16.0 139.9 72.1 20.5 51.1 61.2 28.5 132.3 43.8 90.2 108.6 16.0 139.9 72.1 20.5 51.1 61.2 28.5 132.3 43.8 90.2 106.6 16.0 139.9 72.1 20.5 D E C F D F F B F E C A 7.3 92.2 80.5 F F F E E C D F F F F F E C C F F F F F F F F F F F F	v/c Ratio	0.70	0,0	0.00	4 40	0.40	0.0	0.40	0.68	0.10	0.32	0.46	Parmitted Observe
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Control Delay	2 7	0 0	2000	1220	20.0	7.02	1.14	0.70	1.14	7.02	0.46	Achiera Communication
51.1 61.2 28.5 132.3 43.8 90.2 10.6 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Origina Dalan	5	2 6	20.0	132.3	43.0	80.2	106.6	16.0	139.9	72.1	20.5	(8) O (1) O (8)
51.1 61.2 28.5 132.3 43.8 90.2 106.6 16.0 139.9 72.1 20.5 47.3 92.2 80.5 76.6 many	Cueue Detay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	00	Effective Green, g (s)
D E C F D F F B F F C C T C T C C C T C C C T C C C T C C C T C	otal Delay	51.1	61.2	28.5	132.3	43.8	90.2	106.6	16.0	139.9	72.1	20.5	Actuated g/C Ratio
47.3 92.2 80.5 F 76.6 C	ros	0	ш	O	4	-	L	u	2 0	2	1.4.	50.3	Clearance Time (s)
D F F E	Approach Delay		47.3			92.2		BO E	2	L	U 0	د	Vehicle Extension (s)
nery.	Approach LOS		۵			1		3			0.0 M		Lane Grp Cap (vph)
	Intersection Summery	STATEMENT OF	STATE STATE	Schools	STOREGIST	SENDOR	parameter	distance	Suffering Street	The party of	1	The second second	v/s Ratio Prot
	Comb Leadth: 120							Hallen	Wilder State		CONTRACT	ALEXANDER DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IN	v/s Ratio Perm

Actuated Cycle Length: 119.7	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 78.2	Inters
Infersection Capacity Utilization 103.3%	ICOL
Analysis Period (min) 15	

evel of Service G ection LOS: E

7 1 5 സ്ത 12 2: Ladera Dr & Unser Blvd Splits and Phases:

V/C Katio	0.79	0.79	0.34	1.18	0.82	1 02			444	400	
Haifarm Dalay at	27.0	40.0	000		-				1.14	777	9
Cillidati Calay, Ul	57.3	49.7	30.5	44.8	38.9	48.9			53.8	40 B	23
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00			5	8	4 00
Incremental Delay d2	143	B 4	00	100	4	1			3	3	5
Dalmital			1	25.4	0.0	41.8			9	<u>ب</u>	ò
Cardy (a)	9.10	57.3	30.4	137.3	45.4	908			145.4	79.9	24
Level of Service	٥	ш	C	ш	c	L	ш	2		1	4.7
American Delear Int		40.4							_	n	_
(s) Appropriate (s)		40.4			92.8		81.3			78.5	
Approach LOS		۵			Ŀ		ц			1	
Intersection Summary	Company of	MARKET	Minne	30336	PROFESSIONS	SAN THE PARTY NAMED IN	PROFESSOR	minner	MACIBLE PRINCIPALISM	7	10 modes
HCM Average Control D	Delay		79.7		CM I evel	HCM I evel of Service			1000		
HCM Volume to Capaci	ly ratio		1.07			500		L STATE OF			
Actuated Cycle Length (s)	(s)		119.7		Sum of lost time (s)	time (s)		6.0			
mersection Capacity Uf Analysis Period (min) C. Critical Lane Groun	Mization	¥	15		U Level o	f Service		O			

2010 PM Peak BUILD Conditions - MITIGATED Case R - Right-in, right-out access at Intersection 12 D:\ATOBEPROJECTS\Heritage_Neighborhood_Marketplace_Ladera_Unser\CaseR\t2010PB_Mit_R.sy7

2010 PM Peak BUILD Conditions - MITIGATED Case R - Right-in, right-out access at intersection 12 D:\ATOBE\PROJECTS\Prescript{Principal} - Mithersection 12

	•	-	7	-	-	•	1	†	-	-	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	T.	1		74	1		1				4	ODI
Sign Control		Free			Free		ST TOTAL	Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	669	182	260			388	1		1	1	1
Peak Hour Factor	0.93	0.93	0.93		119 5 201 12 16	0.80	0.88	0.88	Control of the Contro	0.85	0.85	0.85
Hourly flow rate (vph)	1	719	196		631	1	441	1		1	0.03	0.00
Pedestrians			and providing to	100000000000000000000000000000000000000					100	Contract of		
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								Daisad			Detect	
Median storage veh)								Raised		Exchala	Raised	
Upstream signal (ft)		888						area estado			1	
pX, platoon unblocked		000										
vC, conflicting volume	632			915			4707	0400	450	1010		
vC1, stage 1 conf vol	002			915			1787	2102	458	1810	2199	316
vC2, stage 2 conf vol							819	819		1282	1282	
vCu, unblocked vol	632			045			967	1282		528	917	
tC, single (s)	4.2			915			1787	2102	458	1810	2199	316
tC, 2 stage (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tF (s)	0.0			0.0			6.6	5.6		6.6	5.6	
00 queue free %	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
and the management and a life tree and an all the contract of	100			56			0	99	70	95	95	100
cM capacity (veh/h)	939			735			106	97	547	22	24	677
Direction, Lane #	EB 1	EB 2	EB 3	WB1	WB 2	WB3	NB 1	NB2	SB 1			
Volume Total	1	480	435	325	421	212	441	167	4	SHOES		
/olume Left	1	0	0	325	0	0	441	0	1			
/olume Right	0	0	196	0	0	1	0	166	1			
SH	939	1700	1700	735	1700	1700	106	531	34			
/olume to Capacity	0.00	0.28	0.26	0.44	0.25	0.12	4.17	0.31	0.10			
Queue Length 95th (ft)	0	0	0	57	0	0	Err	33	8			
Control Delay (s)	8.8	0.0	0.0	13.7	0.0	0.0	Err	14.9	122.5			
ane LOS	Α			В		0.0	F	B	F			
Approach Delay (s)	0.0			4.7		7	255.7	7/25/2011	122.5			
Approach LOS						A STATE OF THE STATE OF	F		F			
ntersection Summary										E SEE SEE	ENREAL TO	
verage Delay		1	777.0					HILLIAN TO STATE OF THE STATE O		0 AV 4" (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1,407582,02
ntersection Capacity Uti	lization		76.9%	IC	U Leve	of Serv	rice		D			
nalysis Period (min)			15									

		-	1	- 4	4	-	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	1			^		7	
Sign Control	Free			Free	Stop	25,000	
Grade	0%			0%	0%		
Volume (veh/h)	595	282	. 0		0	163	
Peak Hour Factor	0.93	0.93	0.93		0.85	0.85	
Hourly flow rate (vph)	640	303	0	1128	0	192	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							·
Median type					None		
Median storage veh)							
Upstream signal (ft)	481						
pX, platoon unblocked			0.96		0.96	0.96	
vC, conflicting volume			943		1355	472	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			897		1327	405	
tC, single (s)			4.2		6.9	7.0	
tC, 2 stage (s)							
tF(s)			2.2		3.5	3.3	
p0 queue free %			100		100	66	
cM capacity (veh/h)			715		139	568	
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB1		
/olume Total	427	516	564	564	192		
/olume Left	0	0	0	0	0		
/olume Right	0	303	0	0	192		
:SH	1700	1700	1700	1700	568		
/olume to Capacity	0.25	0.30	0.33	0.33	0.34		
Queue Length 95th (ft)	0	0	0	0	37		
Control Delay (s)	0.0	0.0	0.0	0.0	14.5		
ane LOS					В		
approach Delay (s)	0.0		0.0		14.5		
pproach LOS					В		
ntersection Summary							
verage Delay			1.2				
ntersection Capacity Uti	lization		42.2%	IC	U Level	of Service	ce A
nalysis Period (min)			15		THE REAL PROPERTY.	7.0	

	1	7	1	†	1	4	
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	Tyl.			र्स	4		
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Volume (veh/h)	490	5	6	126	216	257	
Peak Hour Factor	0.85	0.85		0.88	0.88	0.88	
Hourly flow rate (vph)	576	6		143	245	292	
Pedestrians					250.00		
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None						
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	548	391	538				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	548	391	538				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	0	99	99				
cM capacity (veh/h)	492	655	1026				
Direction, Lane #	EB 1	NB 1	SB 1		A ROSE		
Volume Total	582	150	538	MAZ.			
Volume Left	576	7	0				
Volume Right	6	0	292				
SH	493	1026	1700				
/olume to Capacity	1.18	0.01	0.32				
Queue Length 95th (ft)	534	1	0				
Control Delay (s)	127.1	0.4	0.0				
ane LOS	F	Α					
Approach Delay (s)	127.1	0.4	0.0				
Approach LOS	F						
ntersection Summary					ACTUAL Y		
verage Delay			58.4			re-renie-line	
ntersection Capacity Ut	ilization		31.2%	ICI	J Level	of Service	e B
nalysis Period (min)			15			70 4	
ntersection Capacity Ut nalysis Period (min)	ilization	•		ICU	J Level	of Servic	В

	, j	-	—	4	-	1	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	**************************************
Lane Configurations		4	4		W		
Sign Control		Free	Free		Stop		
Grade		0%	0%		0%		
Volume (veh/h)	0		0	11	12	0	
Peak Hour Factor	0.85		0.85	0.85	0.85	0.85	
Hourly flow rate (vph)	0		0	13	14	0.00	
Pedestrians			A CHANGE AND A STATE OF	1 - 20 2 2 3	STATE OF THE STATE OF		
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type					None		
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	13				6	6	
vC1, stage 1 conf vol					St. IG.		
vC2, stage 2 conf vol							
vCu, unblocked vol	13				6	6	
tC, single (s)	4.1				6.4	6.2	
tC, 2 stage (s)					0.4	0.2	
tF (s)	2.2				3.5	3.3	
p0 queue free %	100				99	100	
cM capacity (veh/h)	1599				1012	1073	
Direction, Lane #	EB 1	WB1	SB 1				
Volume Total	0	13	14	NAME OF			
Volume Left	0	0	14				
Volume Right	0	13	0				
cSH	1700	1700	1012				
Volume to Capacity	0.00	0.01	0.01				
Queue Length 95th (ft)	0	0	1				
Control Delay (s)	0.0	0.0	8.6				
ane LOS		PART AND LOCAL	Α				
Approach Delay (s)	0.0	0.0	8.6				
Approach LOS			A				
htersection Summary							
Average Delay		, ,	4.5				
ntersection Capacity Uti	lization	1	3.3%	IC	U Level	of Service	ce A
Analysis Period (min)			15				
			S S ALE				

†	•	-	\					-		
NBT	WBR	NBR	SBL	SBT	SERVISIO				A SERVICE	
444	7			444			A (1692 ± 693			
Free				Free						
0%				0%						
1613	295		0							
0.95	0.85									
1698	347			1501						
				1001						
				935						
				200						
	566		2042							
			2072							
	566		2042							
	7.0		4.2							
	1.0		7.2							
	3.3		2.2							
	25		100							
	465		269							
NB 2	NB 1	NB 3	NB 4	SB 1	SB 2	SB 3		The State		
566	566	566	344	500	500	500				
0	0	0	0	0	0	0				
0	0	Ö	344	O	0	0				
1700	1700	1700	1700	1700	1700	1700				
0.33	0.33	0.33	0.20	0.29	0.29	0.29				
0	0	0.00	0.20	0.23	0.23	0.29				
0.0	0.0	0.0	0.0	0.0	0.0	0.0				
0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0			0.0						
	0.0			0.0						
2.9			A STATE OF THE PARTY OF THE PAR				A STATE OF THE STA		and the latter of the latter	- 1 W
3.1%	5	IC	U Leve	of Serv	ice		B			
15										
	5	1%	1% IC	1% ICU Leve	1% ICU Level of Serv	1% ICU Level of Service	1% ICU Level of Service	1% ICU Level of Service B	1% ICU Level of Service B	1% ICU Level of Service B

Analysis of

2010 BUILD Conditions

CASE "N"
(No Access Driveway on Unser Blvd.)

Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2010) - 100% Development

Case N - no driveway at Intersection 12

0.79

Westbound (Ladera Dr)

0.79

Thru Right

105

186

Left

317

542

365

557

INTERSECTION:

Summary

0.87 Eastbound (Ladera Dr)
Thru Right

0.79

312

446

Left

199

Ladera Dr / Unser Blvd
(2)
3.0% Truck
Existing (2007)
2010 (NO BUILD - A.M.)
-

2010 (BUILD - A.M.)

19	9 498	557	686	224	191	134	653	592	201	1.279	105
	0.93			0.93			0.95			0.96	PHF
	thound (Lade		Westh	ound (Lade	ra Dr)	Northb	ound (Unse	r Blvd)	Southb	ound (Unse	
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
14		138	281	264	107	288	860	372	94	547	184
192	2 319	322	594	480	249	560	1,433	708	263	1.087	333
192	381	322	934	542	527	560	1.433	939	372	1.087	222

44

Left

48

134

0.85

Northbound (Unser Blvd) Left Thru Right

429

653

0.85

185

0.89

Southbound (Unser Blvd)

Thru

906

1,279

42

0

Right

58

105

Left

45

99

224

376

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

Ladera Dr / Market Rd 3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.)

2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.)

2010 (BUILD - P.M.)

_		0.88			0.79			0.86			0.85	PHF
L		ound (Lade		Westb	ound (Lade	ra Dr)	Northb	ound (Mark	et Rd)	South		
ļ	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
-	0	425	28	14	365	0	113	0	72	0	0	0
L	0	425	28	15	398	0	113	0	72	0	0	0
L	0	489	39	201	398	0	363	0	136	0	1	0
_	0.93				0.80			0.88			0.85	PHE

- 1		0.00			0.00			0.88		0.85 PHF			
		Eastbound (Ladera Dr)			bound (Lade	ra Dr)	North	bound (Mari	cet Rd)	Southbound (Market Rd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	513	156	48	463	0	83	0	36	0	0	n	
	0	559	170	52	505	0	83	0	36	0	0	0	
Į	0	669	182	260	505	0	526	0	146	0	1	0	

Ladera Dr / Driveway 'A'

3.0% Truck Existing (2007) 2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

		Engthound / I adam Du 181-45 1/1 - 1 - D -						0.85			0.85	PHF
		Eastbound (Ladera Dr) Westbound (Ladera Dr)					Northbo	ound (Drives	way 'A')	Southbo	ound (Driver	rav 'A')
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	520	0	0	466	0	0	0	0	0	0	0
	0	520	0	0	466	0	0	0	0	0	0	- 0
	0	531	307	0	716	0	0	0	65	0	0	- 0
		0.93			0.93		-	0.85	00	- 0	0.85	PHF
ı	Eastbo	ound (Lade	ra Dr)	Westbound (Ladera Dr)			Northbound (Driveway 'A')			Southbo		
İ	Left	Thru	Right	Left Thru Right			Left	Thru	Right	Left	Thru	Right
ł	0	648	0	0	652	٥١	O.	0	0			Tagrit

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

Driveway 'B' / Market Rd 3.0% Truck Existing (2007)

2010 (NO BUILD - A.M.) 2010 (BUILD - A.M.)

Existing (2007) 2010 (NO BUILD - P.M.) 2010 (BUILD - P.M.)

i	U	700	U	0	711	0	0	0	0	0	1 0	0
	0	499	548	0	1,344	0	0	0	163	0	0	0
		0.85			0.85			0.86			0.86	PHF
		und (Drives		Westbo	und (Drivey	vay 'B')	North	bound (Mari	ket Rd)	South	bound (Mari	(et Rd)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	185	0	0	42	0
- 1	- 1	-									74	U

312	0	3	0	0	0	5	189	0	0	53	187
	0.85			0.85			0.88			0.88	PHF
	und (Drivev		Westbound (Driveway 'B')			North	bound (Mar	ket Rd)	South	bound (Mari	
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	0	0	0	0	119	0	0	204	1.1911
0	0	0	0	0	0	0	119	0	0	204	0
785	0	5	0	0	0	6	126	0	0	216	257

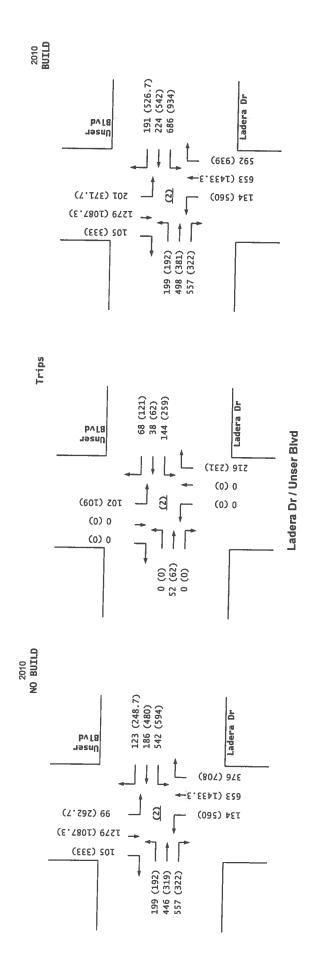
Heritage Neighborhood Center (Ladera Dr / Unser Blvd) Projected Turning Movements Worksheet

					Ladors	Dr / Ha	ser Blvc	rksheet					
					200072	01/01	SOF DIVE		-				
INTERSECTION:	E-W Street:	Ladera Di			(2)								
Year of Existing Counts	N-S Street: 2007	Unser Blv	d										
Implementation Year	2010												
	Growth Rates		0.68%	,		6.77%			4.58%			3.66%	
			ound (Lad			bound (Lad			bound (Uns		South	bound (Uns	
Existing Volumes		Left 175	Thru 251	Right 365	Left 317	Thru	Right	Left	Thru	Right	Left	Thru	Right
Background Traffic Growth		4	5		64		9	48 Z		1	45		58
Subtotal		179	256	+		126	53	55	59 488	31 255	5		
I-40 / Unser Development		0	0			0	30	32	32	121	50		6
Ladera Business Park		0	0			_	3	0	28	121	5		-
Previous Development from below	w	20	190	142	0		67	47	105	0	44	47 184	
Subtotal (NO BUILD - A.I	M.)	199	448	557	542	186	123	134	653	378	99	1,279	105
Percent Commercial Trips Generated		0.00%	10,12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.91%	17.48%	0.00%	0.00%
Percent Commercial Trips Generate Percent Office Trips Generated(E		0.00%	3,59%	0.00%	38.91%	10.12%	17.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(E		0.00%	0.00%	0.00%	0.00% 48,95%	0.00% 3.59%	0.00% 21.33%	0.00%	0.00%	48.95% 0.00%	21,33%	0.00%	0.00%
Total Trips Generated		0	52	0	144	38	68	0.00%	0.00%	216	0.00%	0.00%	0.00%
Total AM Peak Hour BU	JILD Volumes	199	498	557	688	224	191	134	653	592	201	1,279	105
												· · · · ·	
	ſ	Feethy	3.98% ound (Lade	en Del	Weeth	2.50% ound (Lade	- 84	11. 41.1	4.15%	81 5		3.12%	
		Left	Thru	Right	Left	Thru	Right	Left	Ound (Unse	Right	Left	Ound (Unse	Right
Existing Volumes		140	182	138	281	264	107	288	860	372	94	547	184
Background Traffic Growth	ļ	17	22	<u>16</u>	21	20	8	36	107	46	9	51	17
Sublotal	L	157	204	154	302	284	115	324	967	418	103	598	201
I-40 / Unser Development		0	0	78	292	0	0	77	77	290	0	77	0
Ledera Business Park	Ļ	0	0	0	- 0	0	14	0	123	0	23	204	0
Previous Development from below	-	35	115	90	0	<u>196</u>	120	159	266	0	137	208	132
Subtotal (NO BUILD - P.M		192	319	322	594	480	249	560	1,433	708	263	1,087	333
Percent Commercial Trips Generated Percent Commercial Trips Generated		0.00%	0.00%	0.00%	0.00% 38.91%	0.00%	0.00%	0.00%	0.00%	36,91%	17.48%	0.00%	0.00%
Percent Office Trips Generaled(En	ntering)	0.00%	3.59%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00% 48.95%	0.00% 21.33%	0.00%	0.00%
Percent Office Trips Generated(E:	cating)	0.00%	0.00%	0.00%	48.95%	3.59%	21.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated Subtotal PM Pk Hr. BUILD Volum	100	192	62 381	322	259 853	542	121 370	560	0	231	109	0	0
		100									372	1,087	333
Pass-by Trip Adjustments	L	0	0	0	81	0			1,433	939			
Pass-by Trip Adjustments Total PM Peak Hour BUII	LD Volumes	192					157 527	560	1,433	939	372	0	<i>o</i> 333
Pass-by Trip Adjustments Total PM Peak Hour BUII	L	192	<i>0</i> 381	0	81	0	157	0	0	0	0		333
		192 Entering 499	381 Exiting	322	934	542	157 527	580	0	0	0	0	
Total PM Peak Hour BUI Number of Commercial Trips Gener		192 Entering 499 602	381 Exiting 378 /	322 3.M.	934 934 100% Com	542	157 527 svelopmen	580	0	0	0	0	
Total PM Peak Hour BUI Number of Commercial Trips Gener		192 Entering 499	381 Exiting 378 / 580 F	322 322 A.M. 1	934	542	157 527 svelopmen	580	0	0	0	0	
Total PM Peak Hour BUII		192 Entering 499 602 68 20	0 381 Exiting 378 / 580 F 9 / 96 F	0 322 A.M. 1 P.M.	934 934 100% Com	o 542	157 527 svelopmen	580	0	0	0	0	
Total PM Peak Hour BUII Number of Commercial Trips Gener Number of Office Trips Generated	rated	192 Entering 499 802 68 20 Eastbox	0 381 Exiting 378 / 580 F 9 / 96 F	0 322 A.M. 1 P.M. 1 P.M. 1	934 934 100% Com 100% Offic	o 542	157 527 svelopmen ment	560 560 Morthbo	0 1,433	939 939 Bivd)	0 372	0 1,087	333
Total PM Peak Hour BUII Number of Commercial Trips Gener Number of Office Trips Generated 2007 AM Peak Hr	rated	192 Entering 499 802 68 20 Eastboo 175	0 381 Exiting 378 / 580 F 9 / 96 F	0 322 A.M. P.M. O.M. 1 Dr) 385	934 934 100% Com 100% Offic Westbo 317	o 542 mercial De Bovelop und (Laden 105	157 527 evelopment ment	o 560 Northbo	0 1,433 und (Unser 429	939 939 Bivd) 224	372 372 Southbo	0 1,087 1,087 und (Unser 906	333 Blvd) 58
Total PM Peak Hour BUII Number of Commercial Trips Gener Number of Office Trips Generated	rated	192 Entering 499 802 68 20 Eastbox	0 381 Exiting 378 / 580 F 9 / 96 F	0 322 A.M. 1 P.M. 1 P.M. 1	934 934 100% Com 100% Offic	o 542	157 527 svelopmen ment	560 560 Morthbo	0 1,433	939 939 Bivd)	0 372	0 1,087	333 Blvd)
Total PM Peak Hour BUII Number of Commercial Trips Gener Number of Office Trips Generated 2007 AM Peak Hr 2007 PM Peak Hr	rated f. Volumes r. Volumes	192 Entering 499 602 68 20 Eastbox 175 140	0 381 Exiting 378 / 580 F 9 / 96 F	0 322 A.M. P.M. O.M. 1 Dr) 385	934 934 100% Com 100% Offic Westbo 317	o 542 mercial De Bovelop und (Laden 105	157 527 evelopment ment	o 560 Northbo	0 1,433 und (Unser 429	939 939 Bivd) 224	372 372 Southbo	0 1,087 1,087 und (Unser 906	333 Blvd) 58
Total PM Peak Hour BUII Number of Commercial Trips Gener Number of Office Trips Generated 2007 AM Peak Hr 2007 PM Peak Hr	rated f. Volumes r. Volumes	192 Entering 499 602 68 20 Eastbox 175 140	o 381 Exiting 378 / 580 F 9 / 98 F Ind (Lader) 251 182	0 322 A.M. 9.M. 1.M. 1.M. 1.M. 1.M. 1.M. 1.M. 1	934 934 00% Com 00% Offic Westbo 317 281	o 542 mercial De a Develop und (Lader 105 284	157 S27 svelopment ment 10r) 44 107	0 580 Morthbo	0 1,433 und (Unser 429 860	939 939 Bivd) 224 372	94	0 1,087 und (Unser 908 547	333 Blvd) 58 184
Total PM Peak Hour BUII Number of Commercial Trips Generated Number of Office Trips Generated 2007 AM Peak Hr 2007 PM Peak Hr 2007 PM Peak Hr	rated f. Volumes r. Volumes	192 Entering 499 602 68 20 Eastbox 175 140	0 381 Exiting 378 / 580 F 9 / 96 F	0 322 A.M. 9.M. 1.M. 1.M. 1.M. 1.M. 1.M. 1.M. 1	934 934 00% Com 00% Offic Westbo 317 281	o 542 mercial Do	157 S27 svelopment ment 10r) 44 107	0 580 Morthbo	0 1,433 und (Unser 429	939 939 Bivd) 224 372	94	0 1,087 und (Unser 906 547	333 Blvd) 58 184
Total PM Peak Hour BUII Number of Commercial Trips Gener Number of Office Trips Generated 2007 AM Peak Hr 2007 PM Peak Hr 2007 PM Peak Hr Previous Developments - AM Peai	rated f. Volumes r. Volumes	192 Entering 499 602 68 20 Esstbox 175 140 288 Esstbox Left 0	0 381 Exiting 378 / 580 F 9 / 78 F Ind (Ledera 251 182 Ind (Ledera Thru 78	0 322 A.M. 1 P.M. 1 P.M. 1 P.M. 1 Br) 385 138	934 934 00% Com 00% Offic Westbo	o 542 mercial Do	157 527 sevelopment ment 44 107	Northbook	0 1,433 und (Unser 429 860 und (Unser 400 400 400 400 400 400 400 400 400 40	839 Blvd) 224 372 Blvd)	Southbo	0 1,087 und (Unser 906 547	333 Blvd) 58 184
Total PM Peak Hour BUII Number of Commercial Trips Generated Number of Office Trips Generated 2007 AM Peak Hr 2007 PM Peak Hr 2007 PM Peak Hr Previous Developments - AM Peal Vatershed Residential & Retail torm Cloud Dev. w/ others	rated f. Volumes r. Volumes	192 Entering 499 602 68 20 Eastbox 175 140 198 Eastbox Left 0 0	o 381 Exiting 378 / 580 F 9 / 98 F 182 Ind (Ladera 251 182 182 183 183 183 183 183 183 183 183 183 183	0 322 A.M. 12.M. 1	934 934 934 934 934 934 934 934 934 934	o 542 mercial Do	157 527 sevelopment ment 107 107 Dr) Right	Northbook Northbook Northbook Northbook Left	und (Unser 429 860 Unser Thru	839 Blvd) 224 372 Blvd) Right	Southbooks 94	und (Unser 906 547	333 Blvd) 58 184 Blvd) Right
Total PM Peak Hour BUIL Number of Commercial Trips Generated Lumber of Office Trips Generated 2007 AM Peak Hr 2007 PM Peak Hr 2007 PM Peak Hr Trevious Developments - AM Peal Jatershed Residential & Retail Lorm Cloud Dev. w/ others Bith / Unser Development	r. Volumes	192 = ntering 499 602 68 20 Eastbox 175 140 148 Eastbox Left 0 0 20 20	o 381 Exiting 378 / 580 F 9 / 98 F 100 (Ledera 251 182) and (Ledera 77 182) 78 112 0	0 322 A.M. 1 2.M. 1 2.M. 1 3.65 138 Dr) Right 0 142 9	934 934 100% Com 100% Offic Westbo 317 281 Westbo Left 0	o 542 mercial De a Develop und (Ladern 105 264 und (Ladern Thru 24	157 527 sevelopment ment 107 44 107	Northbor 48 288 Northbor Left 0	0 1,433 und (Unser 429 860 und (Unser Thru 6	939 Bivd) 224 372 Bivd) Right 0	Southbook 45 94 Southbook Left 0	0 1,087 und (Unser 906 547 und (Unser Thru 17 131	8lvd) 58 184 Blvd) Right 0 28
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Total PM Peak Hour BUIL Number of Commercial Trips Generated 2007 AM Peak Hr 2007 PM Peak 2007 PM Link Volksh 2007 PM Peak Hr 2007 PM	r. Volumes	192 Entering 499 602 68 20 Eastboot 175 140 728 Eastboot Left 0 20 20 0 10 35	0 381 Exiting 378 / 580 F 9 / 98 F 98 F 182 182 182 182 190 190 115 781	0 322 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	81 934 100% Com 100% Offic 100% Of	0 542 mercial Do e Develop 105 264 mercial Do e Develop 105 264 mercial Do e Develop 105 264 mercial Do e Develop 105 105 mercial Do e Develop 105 105 mercial Do e Develop 105 105 mercial Do e Develop 105 mercial Do e Develop 105 mercial Do e Devel	157 527 107	Northbox	0 1,433 und (Unser 429 860 860 150 150 150 150 150 150 150 150 150 15	0 939	8outhboo Loft Southboo Loft	0 1,087 und (Unser 2 Thru 12 83 113	333
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Total PM Peak Hour BUIL Number of Commercial Trips Generated 2007 AM Peak Hr 2007 PM Link Voltaged on MRCOG Model 2007 PM Link Voltaged on MRCOG Model 2008 PM Link Voltaged PM	r. Volumes r. Setj.	192 Entering 499 602 68 20 Eastboot 175 140 728 Eastboot Left 0 20 20 0 10 35	0 381 Exiting 378 / 680 F 9 / 98 F 9 98 F 9 98 F 102 182 182 182 190 190 115 791 480 299 270	0 322 1M. 1	81 934 100% Com 100% Offic 100% Of	0 542 mercial Do e Develop 105 264 mercial Do e Develop 105 264 mercial Do e Develop 105 264 mercial Do e Develop 105	157 527 107	Northbox	o 1,433 und (Unser 429 860 860 1701 199 98 266 830 2016	0 939 Blvd) 224 372 Blvd) Q Q Blvd) Right Q Q Q Q Q Q Q Q Q	8outhboo Loft Southboo Loft	0 1,087 Unser 10 10 10 10 10 10 10 1	333
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Total PM Peak Hour BUII Number of Commercial Trips Generated 2007 AM Peak Hr 2007 PM Peak Hr Previous Developments - AM Peal Storm Cloud Dev. w/ others Bith / Unser Development Storm Cloud Dev. w/ others Bith / Unser Development Storm Cloud Dev. w/ others Bith / Unser Development St. RCOG Forecast Volumes Worksh ased on 2007 Traffic Count 2007 AM Link Volu 2007 PM Link Volu 2007 PM Link Volu 2005 PM Link Volu 2006 PM Link Volu 2009 PM Link Volu	r. Volumes	192 Entering 499 602 68 20 Eastboo 175 140 765 20 20 20 20 0 35 35	o 381 Exiting 378 / 550 F 9 / 755	0 322 1M. 1	81 934 100% Com 100% Offic 100% Of	0 542 mercial Do e Develop mercial Do	157 527 107	Northbox	o 1,433 und (Unser 429 860 860 1701 199 98 266 830 2016	0 939 Blvd) 224 372 Blvd) Q Q Blvd) Right Q Q Q Q Q Q Q Q Q	8outhboo Loft Southboo Loft	0 1,087 Unser 10 10 10 10 10 10 10 1	8lvd) 58 184 Bivd) Right 0 28 13 41 Sivd) Right 0 91 41
Number of Commercial Trips Generated 2007 AM Peak Hr 2007 PM Peak Hr Previous Developments - AM Peal Storm Cloud Dev. w/ others 8th / Unser Development //revious Developments - PM Peak //revious Development & Retail from Cloud Dev. w/ others 8th / Unser Development St. RCOG Forecast Volumes Worksh 2007 PM Link Volt 2005	r. Volumes	192 Entering 499 602 68 20 Eastbox 175 140 108 Eastbox Left 0 0 35 35	o 381 Exiting 378 / 550 F 9 / 755	0 322 1M. 1	## 934 100% Com 100% Offic 0 542 mercial Do e Develop mercial Do	157 527 107	Northbox Northbox Left	o 1,433 und (Unser 429 850 so 105 so	0 939 Blvd) 224 372 Blvd) Q Q Blvd) Right Q Q Q Q Q Q Q Q Q	Southbook	0 1,087 und (Unser 906 547 17 131 36 184 113 206 1163 1825 1826 1163 1826 1826 1163 1869	8lvd) 58 184 Bivd) Right 0 28 13 41 Sivd) Right 0 91 41	

9.43% 11.74%

6.87% 1.89% 0.87% 0.87%

Growth Rate to Apply to 2005 Model Volumes to Match 2025 Forecasts 2005-2030 AM Growth Rates 8.23% 2005-2030 PM Growth Rates 9.05%



Projected Turning Movements Worksheet

Ladera Dr / Market Rd

3.00%

Westbound (Ladera Dr)

Left

186

201

INTERSECTION:

E-W Street: Ladera Dr N-S Street:

(7)

Year of Existing Counts

2007

Implementation Year

2010

Market Rd

Left

0

0

0

Growth Rates

Existing Volumes Background Traffic Growth Subtotal (NO BUILD - A.M.) Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) **Total Trips Generated**

Total AM Peak Hour BUILD Volumes

28 0 0 425 28 15 0.00% 0.00% 2.00% 33.51% 0.08% 16.75% 0.00% 0.00% 0.00% 0.00% 2.00% 27.57% 0.02% 13.79% 0.00% 0.00%

39

0.00%

Eastbound (Ladera Dr)
eft Thru Right

425

64

489

Thru Thru Right Left Thru Right 113 <u>33</u> 0 0 0 0 398 113 72 0 0 0 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.15% 0.00% 0.00% 0.00% 64.51% 0.07% 16.76% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.04% 0.00% 0.00% 0.00% 71.87% 0.02% 13.78% 0.00% 0.00% 0.00% 0 64

0

136

0

0.00%

Northbound (Market Rd)

363

0.00%

0

0

Southbound (Market Rd)

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) **Total Trips Generated**

Total PM Peak Hour BUILD Volume:

		3.00%			3.00%			0.00%			0.00%	
	Easti	oound (Lade	ra Dr)	West	ound (Lade	ra Dr)	Northi	bound (Mari	ket Rd)	South	bound (Mari	(et Rd)
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	513	156	48	463	0	83	0	36	0	0	0
	<u>0</u>	46	14	4	42	0	0	0	0	0		
	0	559	170	52	505	0	83		36	0	<u>v</u>	
	0.00%	0.00%	2.00%	33.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.000/
	0.08%	16.75%	0.00%	0.00%	0.00%	0.00%	64.51%	0.07%	16.76%	0.00%	0.13%	0.00%
ı	0.00%	0.00%	2.00%	27.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%
	0.02%	13.79%	0.00%	0.00%	0.00%	0.00%	71.87%	0.02%	13,78%	0.00%	0.00%	0.00%
[0	110	12	208	0	0	443	0	110	0.0070	1	0.0078
88	0	669	182	260	505	. 0	526	0	146		4	. 0

Number of Commercial Trips Generated

Number of Office Trips Generated

Entering Exiting 499 378 A.M. 580 P.M. 20

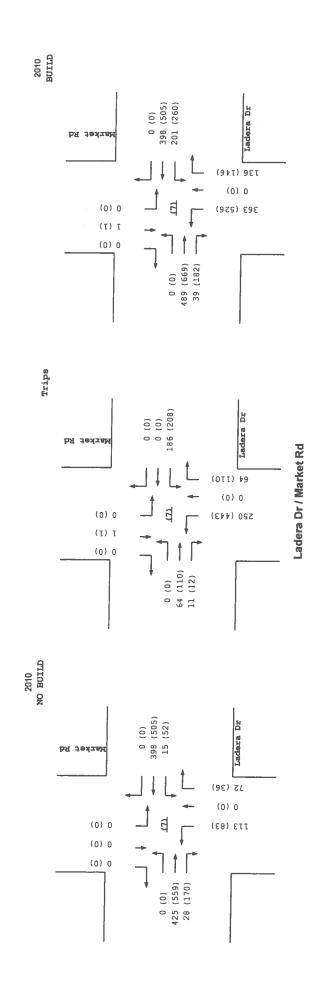
100% Commercial Development

A.M. 100% Office Development 96 P.M.

		Eastbound (Ladera Dr)			Westbound (Ladera Dr)			Northbound (Market Rd)			Southbound (Market Rd)		
2007 AM Peak Hr. Volumes		425	28	14	365	0	113	0	72	Ω	n n	0	
2007 PM Peak Hr. Volumes	0	513	156	48	463	0	83	0	36	0	0	- 0	
						-							

MRCOG Forecast Volumes Worksheet

Based on 2007 Traffic Count				
2007 AM Link Volume	453	379	185	0
2007 PM Link Volume	669	511	119	0
Based on MRCOG Model (2030 Data Set)		• • • • • • • • • • • • • • • • • • • •	110	U
2005 AM Link Volume	355	355	0	
2005 PM Link Volume	261	261	0	0
		201	· ·	U
2030 AM Link Volume	452	1202	30	0
2030 PM Link Volume	1062	1042	47	0
			41	U
Growth Rate to Apply to Existing Counts to Match 2	2030 Forecasts			
2007-2030 AM Growth Rates	-0.01%	9.44%	-3.64%	#PB//A
2007-2030 PM Growth Rates	2.55%	4.52%		#DIV/0!
	2.0076	4.0276	-2.63%	#DIV/01
Growth Rate to Apply to 2005 Model Volumes to M	atch 2030 Forecasts			
2005-2030 AM Growth Rates	1.09%	9.54%	#DIV/0!	AIDIT (ID)
2005-2030 PM Growth Rates	12.28%	11.97%		#DIV/0I
	12.20 /4	11.0770	#DIV/0!	#DIV/0!



Projected Turning Movements Worksheet

0.00%

Ladera Dr / Driveway 'A'

INTERSECTION:

E-W Street: Ladera Dr N-S Street:

(9)

Year of Existing Counts

2007

Implementation Year

Existing Volumes Background Traffic Growth

Total Trips Generated

2010

Growth Rates 0.00%

Driveway 'A'

0.00% Eastbound (Ladera Dr) eft Thru Right Westbound (Ladera Dr) Northbound (Driveway 'A') Southbound (Driveway 'A') Left Left Thru Right Left Right Left 0 0 0 0 0 520 0 0 466 0 0 0 0 0 0 0 Percent Commercial Trips Generated(Entering) 0.00% 52.39% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Percent Commercial Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 64.51% 0.00% 0.00% 0.00% 16.83% 0.00% 0.00% 0.00% Percent Office Trips Generated(Entering) 0.00% 2.00% 67.87% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% Percent Office Trips Generated(Exiting) 0.00% 0.00% 0.00% 0.00% 71.87% 0.00% 0.00% 0.00% 13.81% 0.00% 0.00% 0.00% 307 0 250 0 65 Total AM Peak Hour BUILD Volumes 0 531 307 0 716 0

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting)

Subtotal (NO BUILD - A.M.)

Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting) Total Trips Generated Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volume

		3.00%			3.00%		0.00% 0.00%						
		ound (Lade	ra Dr)	West	ound (Ladi	era Dr)	Northb	ound (Drive	way 'A')	Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	0	648	0	0	652	0	0	0	0	0	0	0	
	<u>Q</u>	<u>58</u>	0	<u>0</u>	<u>59</u>	Q	0	0	0	0	0	0	
	0	706	0	0	711	0	0	0	0	0	0	0	
	0.00%	2.00%	52.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	0.00%	0.00%	0.00%	0.00%	64.51%	0.00%	0.00%	0.00%	16.83%	0.00%	0.00%	0.00%	
ļ	0.00%	2.00%	67.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
-	0.00%	0.00%	0.00%	0.00%	71.87%	0.00%	0.00%	0.00%	13.81%	0.00%	0.00%	0.00%	
ļ	0	12	329	0	443	0	0	0.	111	0	0	0	
- 1	0	718	329	0	1,154	0	0	0	111	0	0	0	
	0	-219	219	0	190	0	0	0	52	0	0	ol	
es	. 0	499	548	0	1,344	0	. 0	. 0	163	0	0	0	

Number of Commercial Trips Generated

Entering **Exiting** 499 378 A.M.

100% Commercial Development

Number of Office Trips Generated

602 580 P.M. A.M. 20 96 P.M.

100% Office Development

2007	AM Peak Hr. Volumes	
2007	PM Peak Hr. Volumes	

I	Eastb	ound (Lade	ra Dr)	Westbound (Ladera Dr)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
L	0	520	0	0	466	0	0	0	0	0	0	0
l	0	648	0	0	652	0	0	0	0	0	0	0

1.16%

1.25%

MRCOG Forecast Volumes Worksheet

520	466	0	٥
648		n	0
	-	_	U
370	327	1248	1049
313			1246
	1027	1000	1240
1468	848	1609	777
923			
	1133	1309	1534
	648 370 313	648 652 370 327 313 1024 1458 848	648 652 0 370 327 1248 313 1024 1058 1468 848 1609

Growth Rate to Apply to Existing Counts to Match 2030 Forecasts 2007-2030 AM Growth Rates 7.93% 3.58% #DIV/01 #DIV/0! 2007-2030 PM Growth Rates 1.85% 7.34% #DIV/0! #DIV/0! 6.37%

Growth Rate to Apply to 2005 Model Volumes to Match 2030 Forecasts 2005-2030 AM Growth Rates 11.87% 11.87% 2005-2030 PM Growth Rates 7.80%

Net PM Passby Trips

ns:					
PM Pass-by Trips	Eastb	ound (Lade	Westbound (L.s		
Percent Entering	0.00%	-82.00%	82.00%	0.00%	-18,00%
Volume Entering	0	-219	219	0	-4
Percent Exiting	0.00%	0.00%	0.00%	0.00%	82.00%
Volume Exiting	0	0	0	0	23
PM Passby Trips	0	-219	219	0	19

East	bound (Lade	ra Dr)	West	ound (Lade	ra Dr)	Northbound (Driveway 'A')			
0.00%	-82.00%	82.00%	0.00%	-18.00%	0.00%	0.00%	0.00%	0.00%	
	-219	219	0	-48	0	0	0		
0.00%	0.00%	0.00%	0.00%	82.00%	0.00%	0.00%	0.00%	18,009	
0	0	0	0	238	0	0	0		
0	-219	219	0	190	0	0	0	E	
Entering	Exiting						_		

2.85%

Pass-by Trips

0 O AM 267 290 PM

Pass-by Trip Calculations:

-1.04%

0.92%

Southbound (Driveway 'A')

0

0

0.00%

0.00%

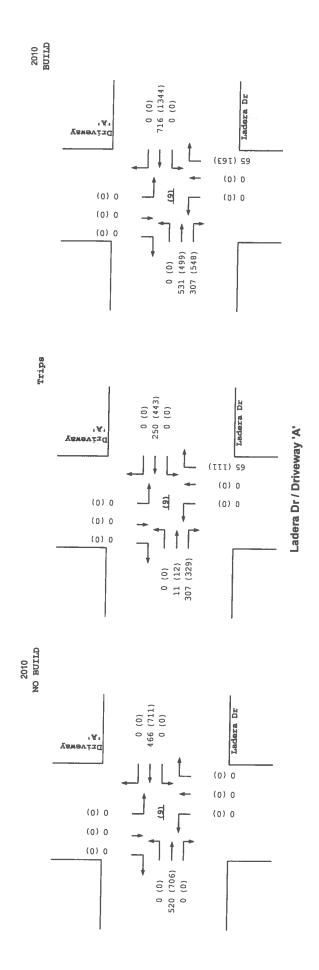
0.00%

0.00%

0.00%

52

0.00%



Projected Turning Movements Worksheet

Driveway 'B' / Market Rd

INTERSECTION:

N-S Street:

E-W Street: Driveway 'B' Market Rd

(10)

Year of Existing Counts

2007

Implementation Year

2010

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - A.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

Total Trips Generated

Total AM Peak Hour BUILD Volumes

Growth Rates		0.00%			0.00%			0.00%			0.00%	
	Eastbo	und (Drivey	ray 'B')	Westbe	ound (Drivey	vay 'B')	North	bound (Marl	cet Rd)	Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
	0	0	0	0	0	0	0	185	0	0	42	n
	<u>0</u>	<u>0</u>	<u>0</u>	Q	0	0	Q	0	0	0	0	
.M.)	0	0	0	0	0	0	0	185	0	0	42	0
ed(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.92%	0.00%	0.00%	0.00%	2.00%	33.66%
ted(Exiting)	80.34%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.00%	2.00%	27.61%
(Exiting)	84.67%	0.00%	0.25%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
	312	0	3	0	0	0	5	4	0	0	11	187
UILD Volumes	312	0	3	. 0	0	0	5	189	0	. 0	53	187

Existing Volumes Background Traffic Growth

Subtotal (NO BUILD - P.M.)

Percent Commercial Trips Generated(Entering) Percent Commercial Trips Generated(Exiting) Percent Office Trips Generated(Entering) Percent Office Trips Generated(Exiting)

Total Trips Generated Subtotal PM Pk Hr. BUILD Volumes

Pass-by Trip Adjustments

Total PM Peak Hour BUILD Volumes

ļ		ound (Drivey		Westbo	ound (Drive	way 'B')	North	bound (Mark	et Rd)	Southbound (Market Rd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	0	0	0	0	0	0	0	119	0	0	204	
	<u>Q</u>	<u>Q</u>	<u>0</u>	0	0	0	Q	Q	0	0.	0	
	0	0	0	0	0	0	0	119	0	0	204	
L	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.92%	0.00%	0.00%	0.00%	2.00%	33.66%
L	80.34%	0.00%	0.92%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
L	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.00%	2.00%	27.61%
L	84.67%	0.00%	0.25%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%
L	547	0	5	0	0	0	6	7	0	0	12	209
ı	547	0	5	0	0	0	6	126	0	0	216	209
L	238	0	0	0	0	0	0	0	o	o	- 0	48
Г	785	0	5	0	0	0	6	126	0	0	216	257

Number of Commercial Trips Generated

Number of Office Trips Generated

Entering	Exiting	
499	378	A.M
602	580	P.M
GD.	0	A 84

100% Commercial Development

A.M. P.M. 20

100% Office Development

2007 AM Peak Hr. Volumes 2007 PM Peak Hr. Volumes

L	Eastbound	d (Driveway	'B')	Westbou	nd (Drivew)	Ry 'B')	Northb	ound (Marke	t Rd)	Southb	ound (Mari	(et Rd)
L	0	0	0	0	0	0	0	185	0	0	42	0
L	0	0	0	0	0	0	0	119	0	0	204	0