DRAFT 8

BACKGROUND REPORT No. 22

Traffic/Circulation

City of Goleta
May 24, 2004

INTRODUCTION

This report will provide a summary of existing traffic and circulation systems in the City of Goleta, including roadways and intersections, rail, bicycle paths and airports. The content of this report was prepared for the City of Goleta by RBF Consulting and by the City.

EXISTING ROADWAY SYSTEM

Goleta is served by an existing network of roadways providing access to and within the City. US Highway 101 traverses the central spine of the entire east-west length of the City, providing regional access to Goleta.

Exhibit 1, *City of Goleta Functional Classification System*, shows the City of Goleta road system with roadway classification according to the following four categories:

- Freeway;
- Major Arterial;
- Minor Arterial; and
- Collector.

The road system designations shown in Exhibit 1 are in accordance with the County of Santa Barbara Circulation Element. The function and a brief description of each classification is provided in the following paragraphs.

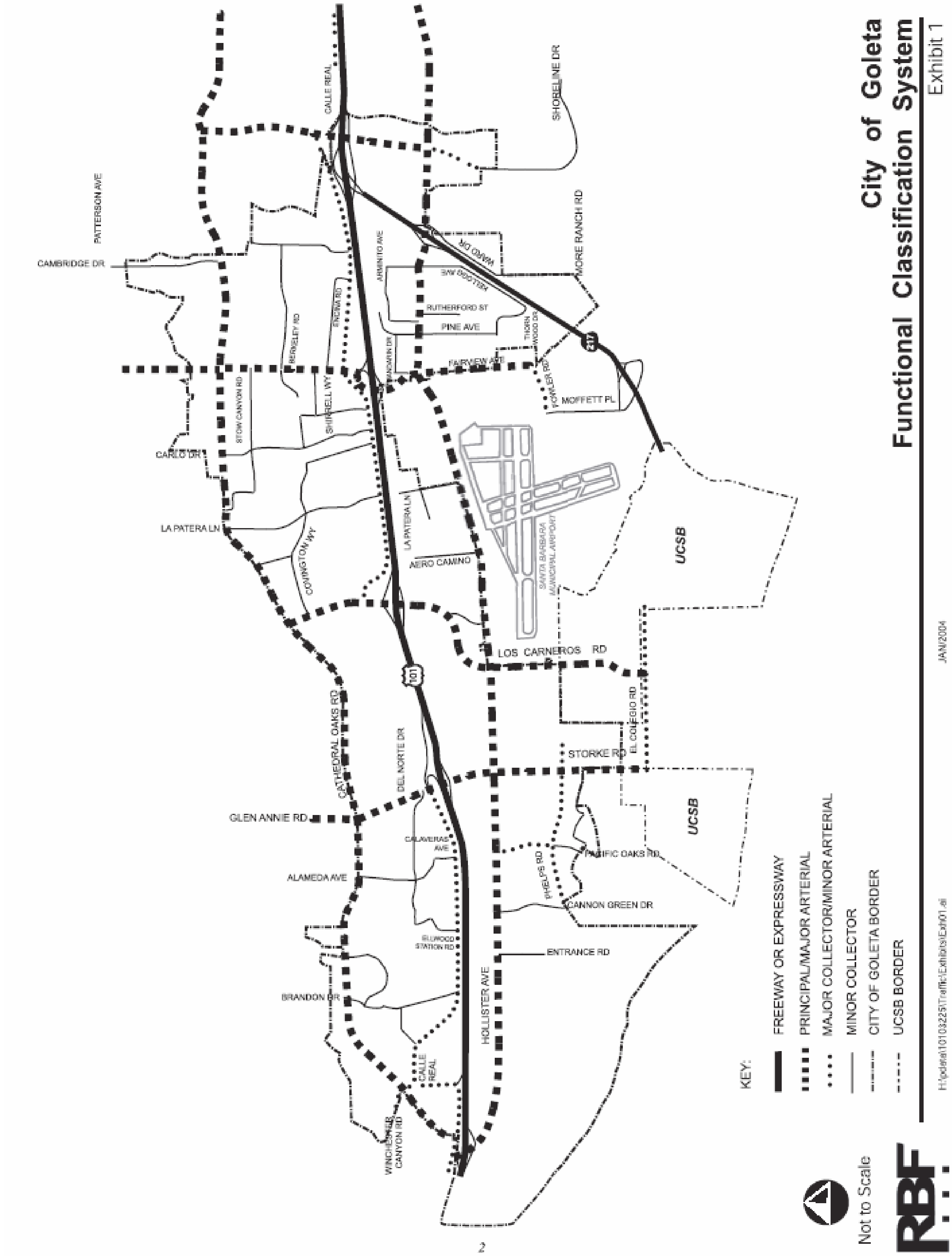
Freeway

A freeway is a four or six lane divided arterial highway with full control of access and with grade separations at intersections. Freeways serve as the principal arterials of inter- and intra-state system of highways, carrying traffic between cities, traffic generators and points of interest. As the highest type of road facility, freeways provide maximum service and safety for through traffic. The freeway system serving the City of Goleta includes US-101 and SR-217.

Major Arterial

A major arterial is an undivided four-lane road with intersections at grade and partial control of access. Major arterials serve as a secondary type of arterial facility carrying traffic through communities, frequently providing access to shopping areas, employment centers, recreational areas, residential areas and places of assembly.

Exhibit 1 City of Goleta Functional Classification System



Minor Arterial

A minor arterial is an undivided two-lane road with intersections at grade and partial control of access. Minor arterials serve as a secondary type of arterial facility carrying local through traffic within communities, frequently providing access to shopping areas, employment centers, recreational areas, residential areas and places of assembly.

Collector

Collector roads are two lane undivided roads with intersections at grade, designed to take a minimum interference of traffic from driveways. Collector roads are designed to provide principal access to residential areas or to connect streets of higher classifications to permit adequate traffic circulation.

Listed below is a description of the major routes serving the City of Goleta.

U.S. Highway 101. US 101 is a four- to six-lane freeway serving the coastal area located between Los Angeles and San Francisco. It is the principal route between the community of Goleta and the cities of Santa Barbara, Carpenteria and Ventura. While serving as the principal roadway in Goleta, this limited-access facility combined with the adjacent railroad tracks creates a circulation barrier for north-south traffic.

State Route 217. State Route 217 (SR 217 - Ward Memorial Boulevard) is a four-lane freeway extending on a northeast to southwest diagonal alignment between US 101 and the University of California Santa Barbara (UCSB).

Hollister Avenue. Hollister Avenue is a continuous local east-west street, located parallel to and just south of US 101. Hollister Avenue is a four-lane street providing direct access to the central area of the City of Santa Barbara.

Calle Real. Calle Real serves as a frontage road along several segments north of US 101. Calle Real's impact on regional circulation is limited because it is discontinuous and because its intersections with north-south streets in the corridor are very close to US 101 intersections. Calle Real is predominately a two-lane roadway except for the four-lane segment between Fairview Avenue and Kellogg Avenue.

Cathedral Oaks Road. Cathedral Oaks Road provides a continuous east-west linkage throughout the northern portion of Goleta. The width of Cathedral Oaks Road varies throughout the City between two- and four-lanes.

Storke/Glen Annie Roads. These two roads combine to provide the westernmost north-south road in the City. Glen Annie Road is predominately a two-lane facility, while sections of Storke Road south of Hollister Avenue are four lanes.

Los Carneros Road. Los Carneros Road crosses US 101 one mile east of Storke Road. It is primarily a two-lane road, however four through traffic lanes are provided between US 101 and Hollister Avenue. Los Carneros Road provides the most direct access to US 101 for a number of major employers located in the City.

Fairview Avenue. Fairview Avenue is a north-south connector providing access to central Goleta and to the Santa Barbara Municipal Airport (SBMA). The US 101 interchange for this roadway is located approximately 1.2 miles east of Los Carneros Road. Fairview Avenue is a two- to four-lane arterial road connecting residential areas north of Hwy 101 with Goleta Old Town and the Santa Barbara Airport.

Patterson Avenue. Patterson Avenue is a two- to four-lane north-south arterial, which extends north of Calle Real and south of Hollister Avenue, outside the City of Goleta. Patterson Avenue provides access to US 101 within Goleta.

El Colegio. El Colegio is a two-lane street, south of city limits, linking Storke Road and Los Carneros Road and provides access to the UCSB campus and Isla Vista.

Federal Aid Urban Streets

Exhibit 2, *Federal Aid Urban Streets Functional Classification System*, shows the Federal Highway Administration roadway designations of Federal Aid Urban Streets.

Existing Daily Trip Volumes

Exhibit 3, *Existing ADT Volumes*, shows existing average daily traffic (ADT) volumes for the City of Goleta roadway system. Table 1 shows ADT volumes collected in May 2003. ADT counts were taken at 153 locations; 117 are in the City of Goleta, and 36 are outside of city limits. Segments located outside of the City of Goleta are denoted with an asterisk. Detailed traffic count data is included in Appendix A.

Table 1
ADT COUNT DATA

#	Segment	ADT Count
1	Aero Camino n/o Hollister	4,514
2	Alameda Ave s/o Cathedral Oaks Rd	5,090
3	Alameda Ave s/o Del Norte Dr	1,990
4	Berkeley e/o Fairview Ave	3,480
5	Berkeley Rd e/o Sylvan Dr	1,268
6	Brandon Dr s/o Cathedral Oaks Rd	2,933
7	Calle Real w/o US-101 Northbound On-Ramp	1,720
8	Calle Real e/o Cathedral Oaks Rd	5,966
9	Calle Real e/o US-101 Northbound Off-Ramp	3,217
10	Calle Real e/o Winchester Canyon Rd	3,191
11	Calle Real e/o Brandon Dr	5,338
12	Calle Real e/o Ellwood Station Rd	6,967
13	Calle Real e/o Calaveras Ave	9,079

#	Segment	ADT Count
14	Calle Real e/o Los Carneros Rd	7,980
15	Calle Real e/o La Patera Ln	7,658
16	Calle Real e/o Carlo Dr	9,959
17	Calle Real e/o Encina Ln	14,781
18	Calle Real e/o Kellogg Ave	16,337
19	Calle Real w/o San Marcos Road*	974
20	Calle Real e/o San Marcos Road*	3,946
21	Cambridge Dr n/o Cathedral Oaks Rd	2,241
22	Cambridge Dr s/o Cathedral Oaks Rd	1,665
23	Cambridge Dr s/o Berkeley Rd	1,401
24	Cannon Green Dr s/o Hollister Ave	3,665
25	Carlo Dr n/o Cathedral Oaks Rd	455
26	Carlo Dr s/o Cathedral Oaks Rd	1,883
27	Carlo Dr s/o Stow Canyon Rd	1,184
28	Castilian Dr w/o Los Carneros Rd	4,058
29	Cathedral Oaks Rd e/o Calle Real	2,012
30	Cathedral Oaks Rd e/o Winchester Canyon Rd	2,482
31	Cathedral Oaks Rd e/o Gerard Dr	4,663
32	Cathedral Oaks Rd e/o Brandon Dr	5,471
33	Cathedral Oaks Rd e/o Alameda Ave	9,656
34	Cathedral Oaks Rd e/o Glen Annie Rd	7,157
35	Cathedral Oaks Rd e/o Los Carneros Rd	9,160
36	Cathedral Oaks Rd e/o Windsor Ave	8,535
37	Cathedral Oaks Rd e/o Carlo Dr	10,199
38	Cathedral Oaks Rd e/o Fairview Ave	9,506
39	Cathedral Oaks Rd e/o Arundel Rd	10,621
40	Cathedral Oaks Rd e/o Cambridge Dr*	10,154
41	Cathedral Oaks Rd e/o Kellogg Ave*	11,466
42	Cathedral Oaks Rd e/o Patterson Ave*	11,400
43	Cathedral Oaks Rd e/o Ribera Rd*	12,680

#	Segment	ADT Count
44	Covington Wy e/o Los Carneros Rd	1,690
45	Dearborn Pl n/o Hollister Ave	3,182
46	Del Norte Dr w/o Alameda Ave	2,202
47	Del Norte Dr w/o Glen Annie Rd	1,888
48	Edgewood n/o Stow Canyon Rd	210
49	Encina Rd e/o Fairview Ave	4,592
50	Encina Rd e/o Encina Ln	2,680
51	Entrance Rd s/o Hollister Ave	6,229
52	Fairview Ave n/o Cathedral Oaks Rd	3,948
53	Fairview Ave n/o Stow Canyon Rd	9,864
54	Fairview Ave n/o Berkeley Rd	12,565
55	Fairview Ave n/o Shirrell Wy	12,546
56	Fairview Ave n/o Calle Real	14,716
57	Fairview Ave n/o Hollister Ave	18,755
58	Fairview Ave n/o Carson St	8,636
59	Fairview Ave n/o Fowler Rd	6,055
60	Fowler Rd w/o Fairview Ave	5,326
61	Gerard Dr s/o Cathedral Oaks Rd	614
62	Glen Annie Rd n/o Cathedral Oaks Rd	1,305
63	Glen Annie Rd n/o Del Norte Dr	8,478
64	Glen Annie Rd n/o Calle Real	10,363
65	Glen Annie Rd n/o Hollister Ave[2]	40,035
66	Hollister Ave e/o US-101 Southbound Ramps[1]	6,496
67	Hollister Ave w/o Entrance Rd	11,464
68	Hollister Ave w/o Cannon Green Dr	10,642
69	Hollister Ave w/o Pacific Oaks Rd	19,141
70	Hollister Ave w/o Marketplace Dr	22,105
71	Hollister Ave w/o Storke Rd[2]	29,539
72	Hollister Ave w/o Los Carneros Rd[2]	20,349
73	Hollister Ave w/o Cremona Dr[2]	15,864

#	Segment	ADT Count
74	Hollister Ave w/o Los Carneros Wy	15,746
75	Hollister Ave w/o La Patera Ln	21,326
76	Hollister Ave w/o Fairview Ave	21,718
77	Hollister Ave w/o Pine Ave	23,105
78	Hollister Ave w/o Kinman Ave	23,345
79	Hollister Ave w/o Kellogg Ave	23,860
80	Hollister Ave w/o Dearborn Pl	25,937
81	Hollister Ave w/o Patterson Ave	17,759
82	Hollister Ave w/o Lassen Dr	23,240
83	Hollister Ave w/o Walnut Ln*	19,912
84	Hollister Ave w/o San Marcos Rd*	16,918
85	Hollister Ave e/o San Marcos Rd*	1,8748
86	Kellogg Ave n/o Cathedral Oaks Rd*	2,239
87	Kellogg Ave s/o Cathedral Oaks Rd*	1,823
88	Kellogg Ave n/o Marbury Dr	2,963
89	Kellogg Ave n/o Calle Real	3,780
90	Kellogg Ave n/o Hollister Ave	4,851
91	Kellogg Ave s/o Hollister Ave	6,729
92	Kingston Ave n/o Calle Real	3,067
93	La Patera Ln n/o Covington Wy	2,223
94	La Patera Ln n/o Calle Real	2,482
95	La Patera Ln n/o Hollister Ave	4,048
96	La Ramada Dr w/o San Marcos Rd*	1,173
97	Lassen Dr n/o Hollister Ave*	2,252
98	San Ricardo Dr s/o Hollister Ave*	3,376
99	Los Carneros Rd n/o Covington Wy	2,669
100	Los Carneros Rd n/o Calle Real	2,525
101	Los Carneros Rd n/o US-101 Northbound Ramps	12,154
102	Los Carneros Rd n/o Calle Koral	20,771
103	Los Carneros Rd n/o Cremona Dr	23,223

#	Segment	ADT Count
104	Los Carneros Rd n/o Hollister Ave[2]	17,506
105	Los Carneros Rd s/o Hollister Ave[2]	20,517
106	Los Carneros Rd s/o Mesa Rd*	19,755
107	Los Carneros Wy n/o Hollister Ave	4,050
108	Mesa Rd e/o Los Carneros Rd*	5,033
109	Mirano Dr w/o Placer Dr	1,302
110	Moffett Pl s/o Fowler Rd	5,871
111	Patterson Ave e/o Cambridge Dr*	1,154
112	Patterson Ave n/o Cathedral Oaks Rd*	3,934
113	Patterson Ave n/o University Dr*	10,943
114	Patterson Ave n/o Calle Real*	16,039
115	Patterson Ave n/o US-101 Northbound Off-Ramp*	26,528
116	Patterson Ave n/o Overpass Rd	25,098
117	Patterson Ave n/o Hollister Ave	22,140
118	Patterson Ave s/o Hollister Ave	10,936
119	Patterson Ave n/o More Ranch Rd*	5,407
120	Pebble Beach Dr s/o Hollister Ave	431
121	Phelps Rd w/o Pacific Oaks Rd	1,340
122	Phelps Rd w/o Storke Rd	3,650
123	Phelps Rd e/o Storke Rd	2,135
124	Nectarine Ave n/o Hollister Ave	2,295
125	Pine Ave n/o Gaviota St	5,189
126	Placer Dr s/o Del Norte Dr	1,532
127	Orange Ave n/o Hollister Ave	2,286
128	Ribera Rd n/o La Ramada Dr*	1,275
129	Rutherford St n/o Dawson Ave	1,542
130	University Dr w/o Patterson Ave*	1,084
131	University Dr w/o Ribera Rd*	3,254
132	University Dr w/o San Marcos Rd*	1,982
133	San Marcos Rd n/o Cathedral Oaks Rd*	7,750

#	Segment	ADT Count
134	San Marcos Rd n/o La Ramada Dr*	1,289
135	San Marcos Rd n/o Calle Real*	3,900
136	San Marcos Rd s/o Hollister Ave*	3,243
137	San Simeon Dr w/o Walnut Ln*	968
138	San Simeon Dr w/o San Marcos Rd*	1,529
139	Shirrell Wy w/o Fairview Ave	4,419
140	SR-217 WB Off-Ramp e/o Moffett Pl*	3,129
141	SR-217 EB On-Ramp e/o Sandspit Rd*	3,214
142	Storke Rd n/o Marketplace Dr[2]	21,619
143	Storke Rd n/o Phelps Rd	21,351
144	Storke Rd s/o Phelps Rd	20,589
145	Stow Canyon Rd w/o Carlo Rd	15,773
146	Stow Canyon Rd w/o Fairview Ave	1,259
147	Storke Rd n/o El Colegio Rd*	3,438
148	Sylvan Dr n/o Encina Rd	1,537
149	Tecolote Ave n/o Hollister Ave	2,453
150	Thornwood Dr w/o Kellogg Ave	1,689
151	Valdez Ave n/o Calle Real	3,569
152	Walnut Ln s/o Hollister Ave*	6,919
153	Ward Dr s/o SR-217 Northbound Off-Ramp	5,238

* Segments outside of City of Goleta [1]Counted in January 2004
[2]Counted in February 2004

Exhibit 2 Federal Aid Urban Streets Functional Classification System

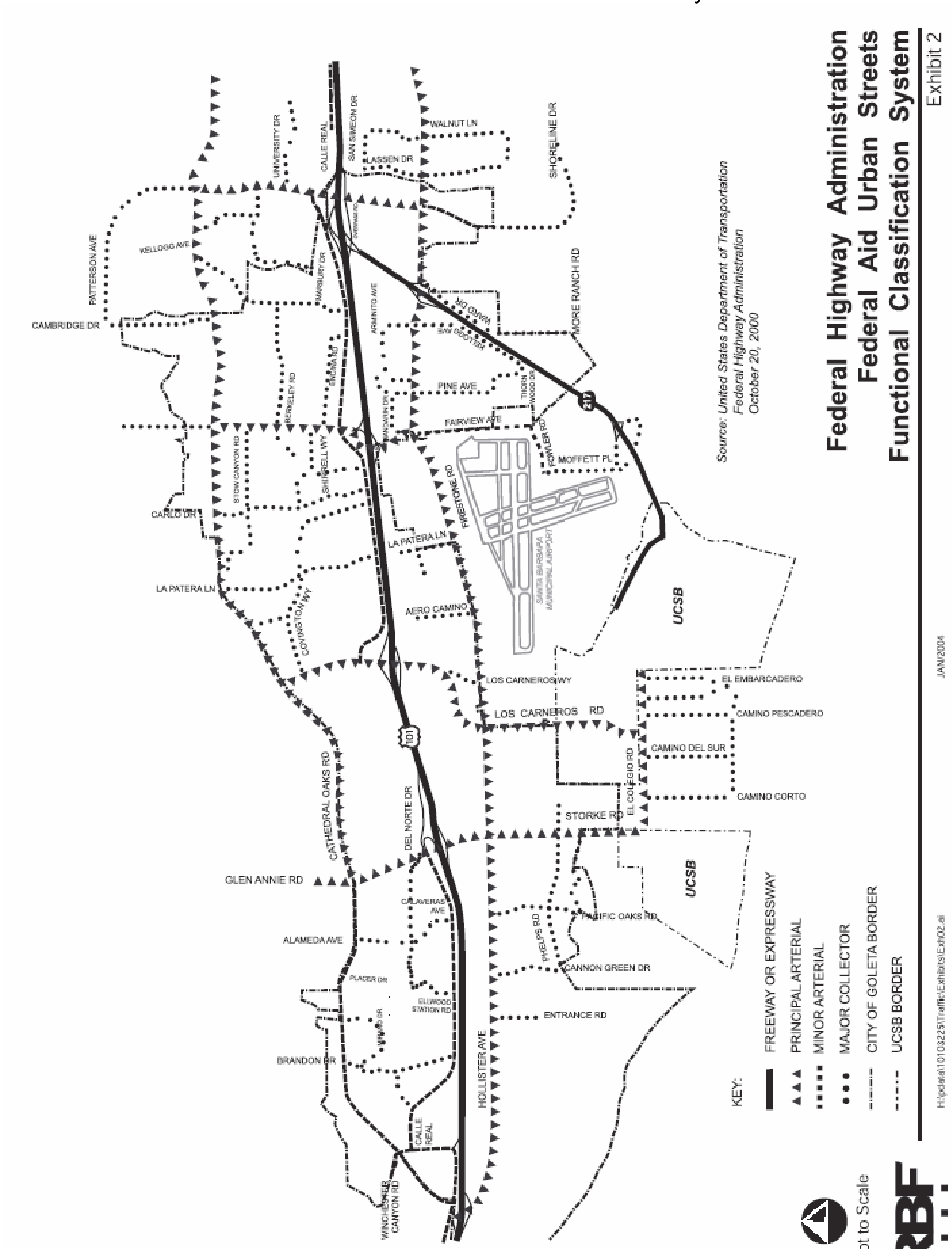


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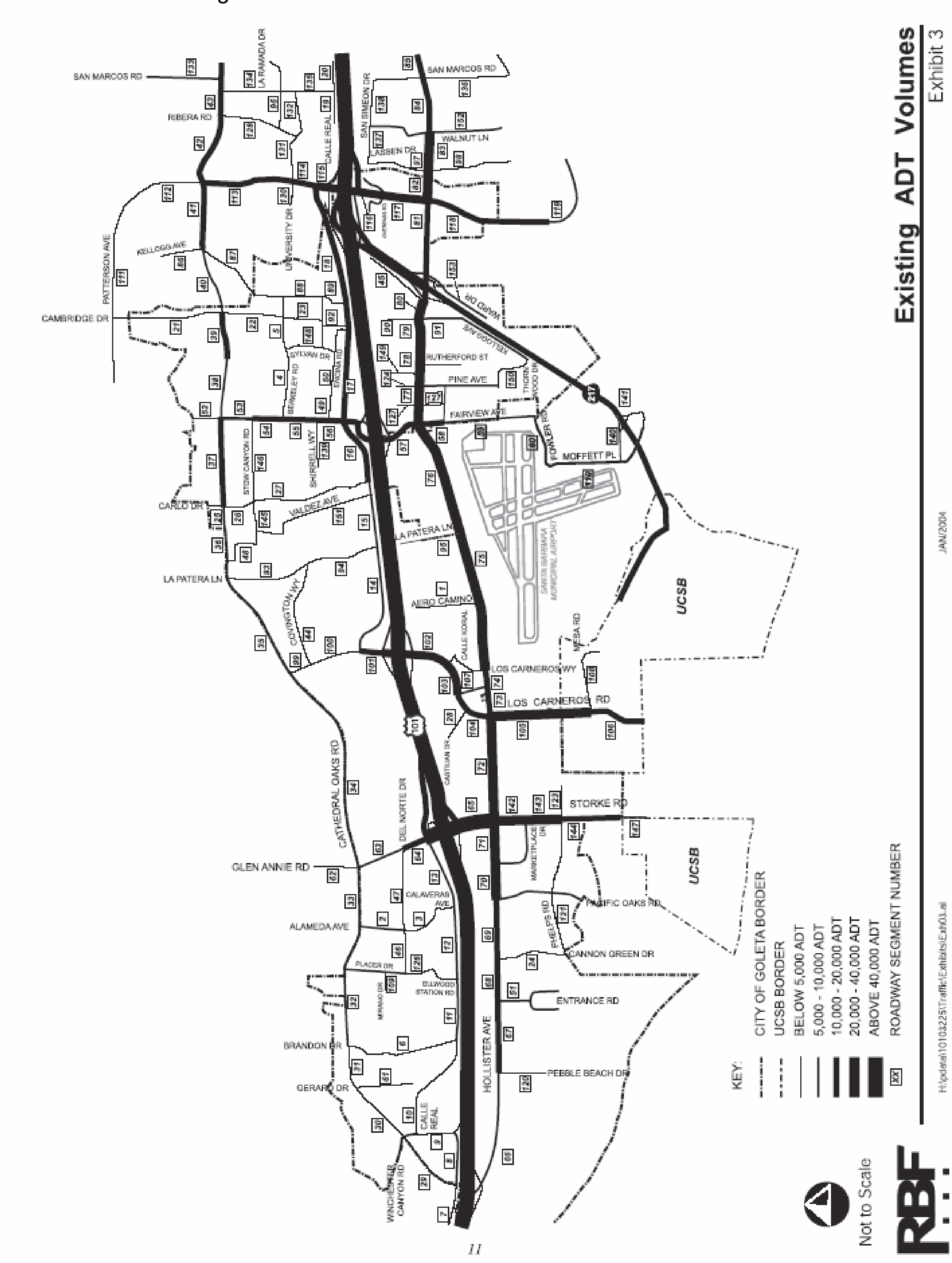
Exhibit 3 Existing ADT Volumes



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STUDY INTERSECTIONS

This study analyzes existing traffic conditions at 41 intersections within the City of Goleta, and 10 intersections adjacent the City of Goleta. Exhibit 4 shows the 51 intersections analyzed within this study.

The following list identifies the 51 intersections analyzed in this study City of Goleta; intersections located outside of the City of Goleta are denoted with an asterisk:

1. Hollister Avenue/Calle Real (unsignalized)
2. Entrance Road/Hollister Avenue (signalized)
3. Cannon Green Drive/Hollister Avenue (unsignalized)
4. Pacific Oaks Road/Hollister Avenue (signalized)
5. Marketplace Drive/Hollister Avenue (signalized)
6. Storke Road/Hollister Avenue (signalized)
7. Storke Road/Marketplace Drive (signalized)
8. Storke Road/Phelps Road (signalized)
9. Glen Annie Road/Cathedral Oaks Road (signalized)
10. Glen Annie Road/Del Norte Drive (unsignalized)
11. Glen Annie Road/US-101 Northbound Ramps (signalized)
12. Glen Annie Road/US-101 Southbound Ramps (signalized)
13. Alameda Avenue/Cathedral Oaks Road (signalized)
14. Los Carneros Road/Cathedral Oaks Road (unsignalized)
15. Los Carneros Road/Calle Real (unsignalized)
16. Los Carneros Road/US-101 Northbound Ramps (signalized)
17. Los Carneros Road/US-101 Southbound Ramps (signalized)
18. Los Carneros Road/Calle Koral (signalized)
19. Los Carneros Road/Castillian Drive (signalized)
20. Los Carneros Road/Hollister Avenue (signalized)
21. Los Carneros Road/Mesa Road (signalized)*
22. Los Carneros Way/Hollister Avenue (signalized)
23. Aero Camino/Hollister Avenue (signalized)
24. La Patera Lane/Hollister Avenue (signalized)
25. Fairview Avenue/Cathedral Oaks Road (signalized)
26. Fairview Avenue/Stow Canyon Road (unsignalized)
27. Fairview Avenue/Encina Road (signalized)
28. Fairview Avenue/Calle Real (signalized)
29. Fairview Avenue/US-101 NB Ramps (signalized)
30. Fairview Avenue/Hollister Avenue (signalized)
31. Pine Avenue/Hollister Avenue (signalized)
32. Rutherford Street/Hollister Avenue (signalized)
33. Cambridge Drive/Cathedral Oaks Road (signalized)
34. Kellogg Avenue/Cathedral Oaks Road (signalized)*
35. Kellogg Avenue/Calle Real (signalized)
36. Kellogg Avenue/Hollister Avenue (signalized)
37. SR-217 Southbound Ramps/Hollister Avenue (signalized)
38. Ward Drive/Hollister Avenue (signalized)
39. Patterson Avenue/Cathedral Oaks Road (signalized)*
40. Patterson Avenue/University Drive (signalized)*

41. Patterson Avenue/Calle Real (signalized)*
42. Patterson Avenue/US-101 NB Ramps (signalized)
43. Patterson Avenue/US-101 SB Ramps (signalized)
44. Patterson Avenue/Overpass Road (signalized)
45. Patterson Avenue/Hollister Avenue (signalized)
46. Walnut Lane/Hollister Avenue (signalized)*
47. San Marcos Road West/Cathedral Oaks Road (unsignalized)*
48. San Marcos Road East/Cathedral Oaks Road (signalized)*
49. San Marcos Road/Calle Real (unsignalized)*
50. San Marcos Road/Hollister Avenue (signalized)*
51. Fairview Aveneu/US-101 SB Ramps (signalized)

EXISTING CONDITIONS

To determine the existing operation of the study area intersections, a.m. and p.m. peak hour intersection movement counts were taken in May 2003 while UCSB classes were in session. Exhibits 5 through 8 show existing study intersection geometry. Exhibits 9 through 12 show a.m. and p.m. peak hour volumes at the study intersections. Detailed traffic count data is included in Appendix A.

Exhibit 4, City of Goleta Study Intersections

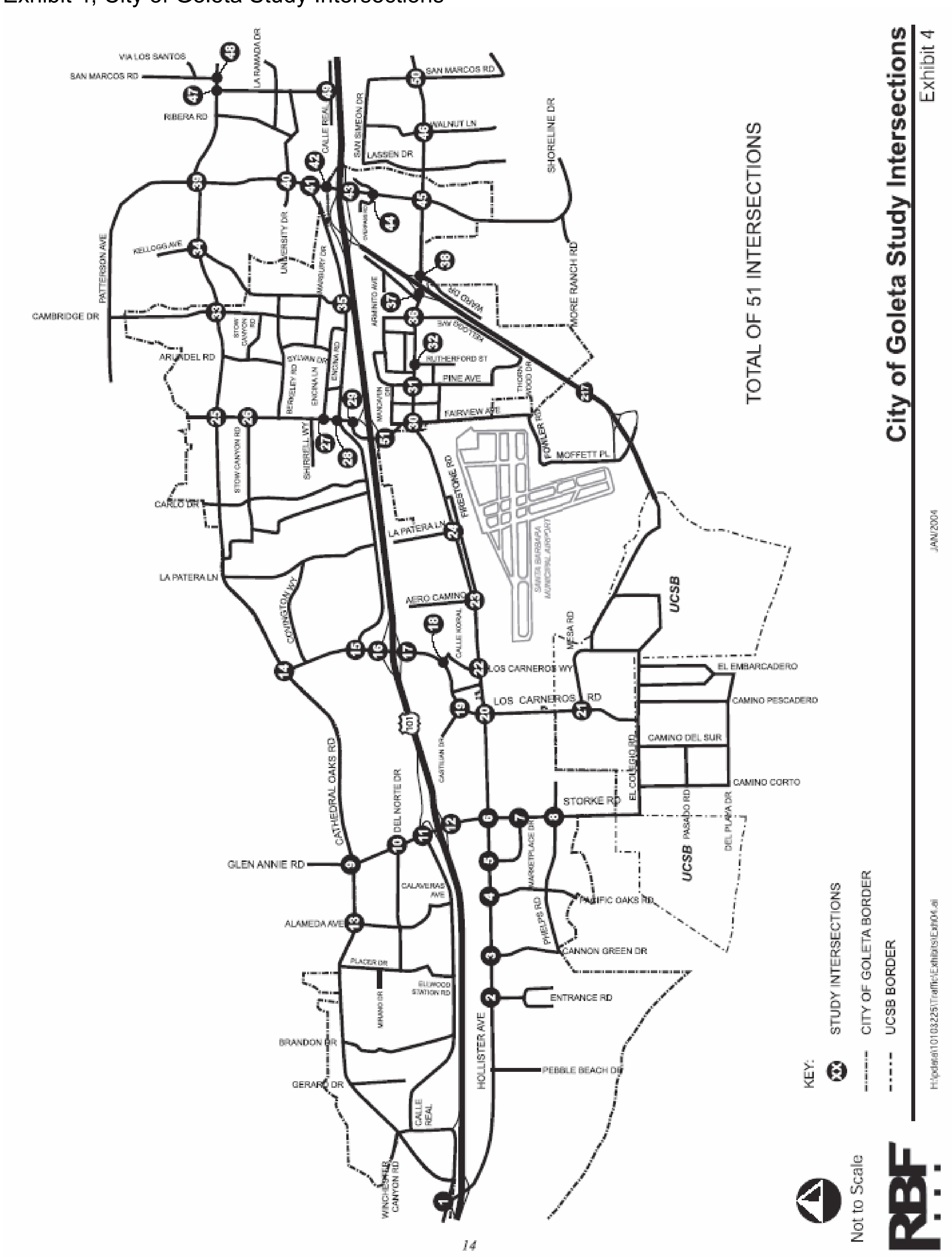

Exhibit 5 Study Area A – Existing Intersection/Roadway Geometry

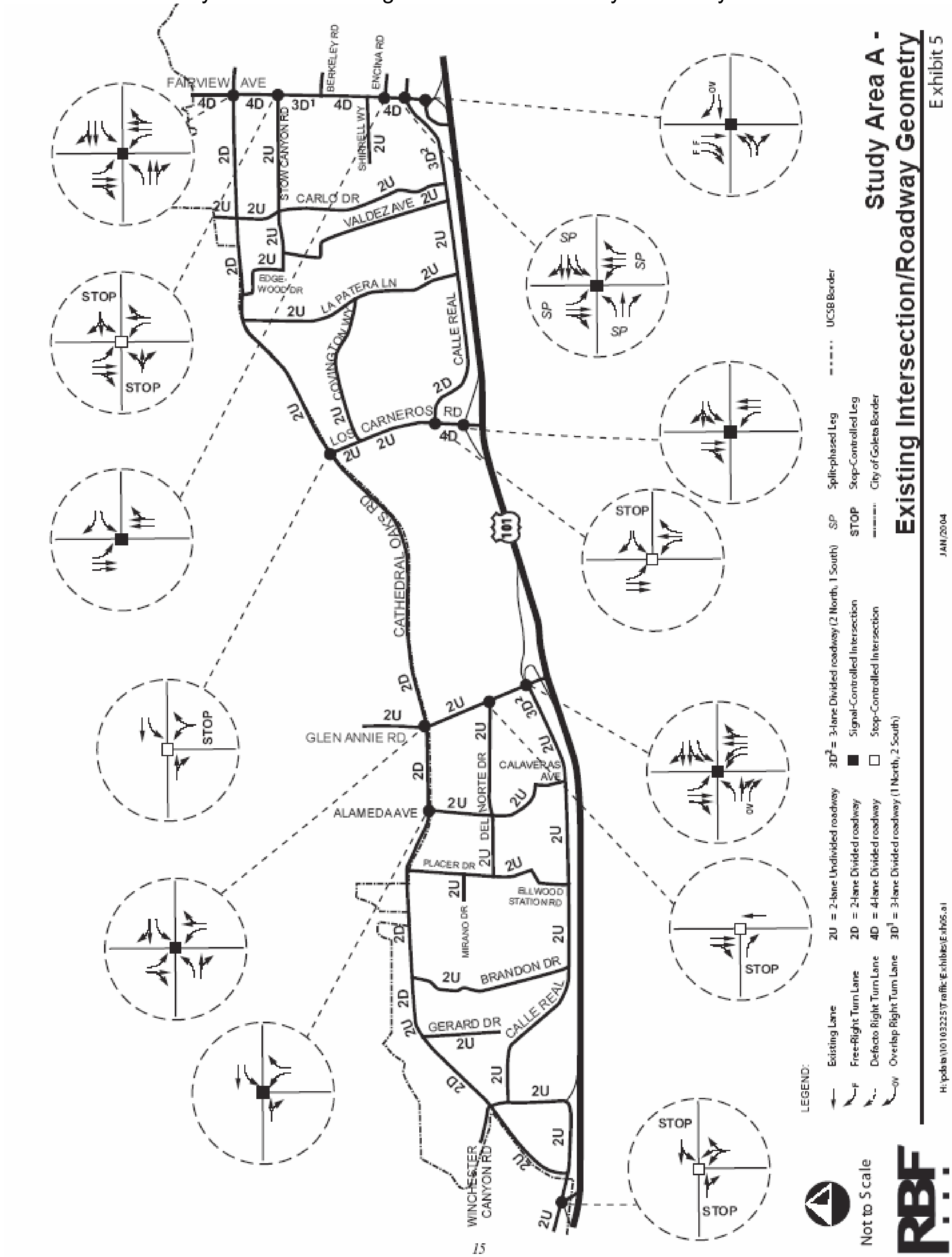

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Exhibit 6 Study Area B – Existing Intersection/Roadway Geometry

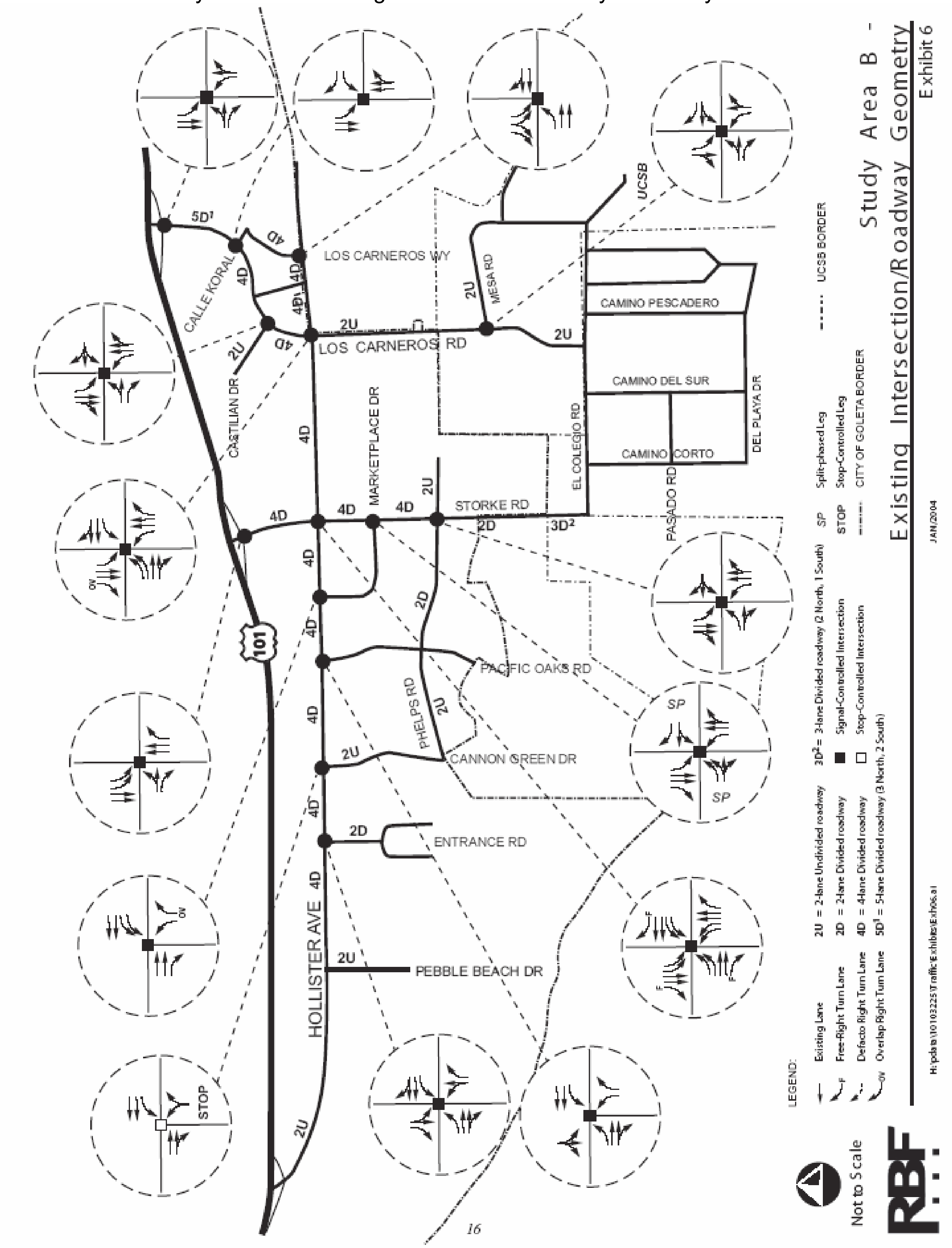

Exhibit 7 Study Area C – Existing Intersection/Roadway Geometry

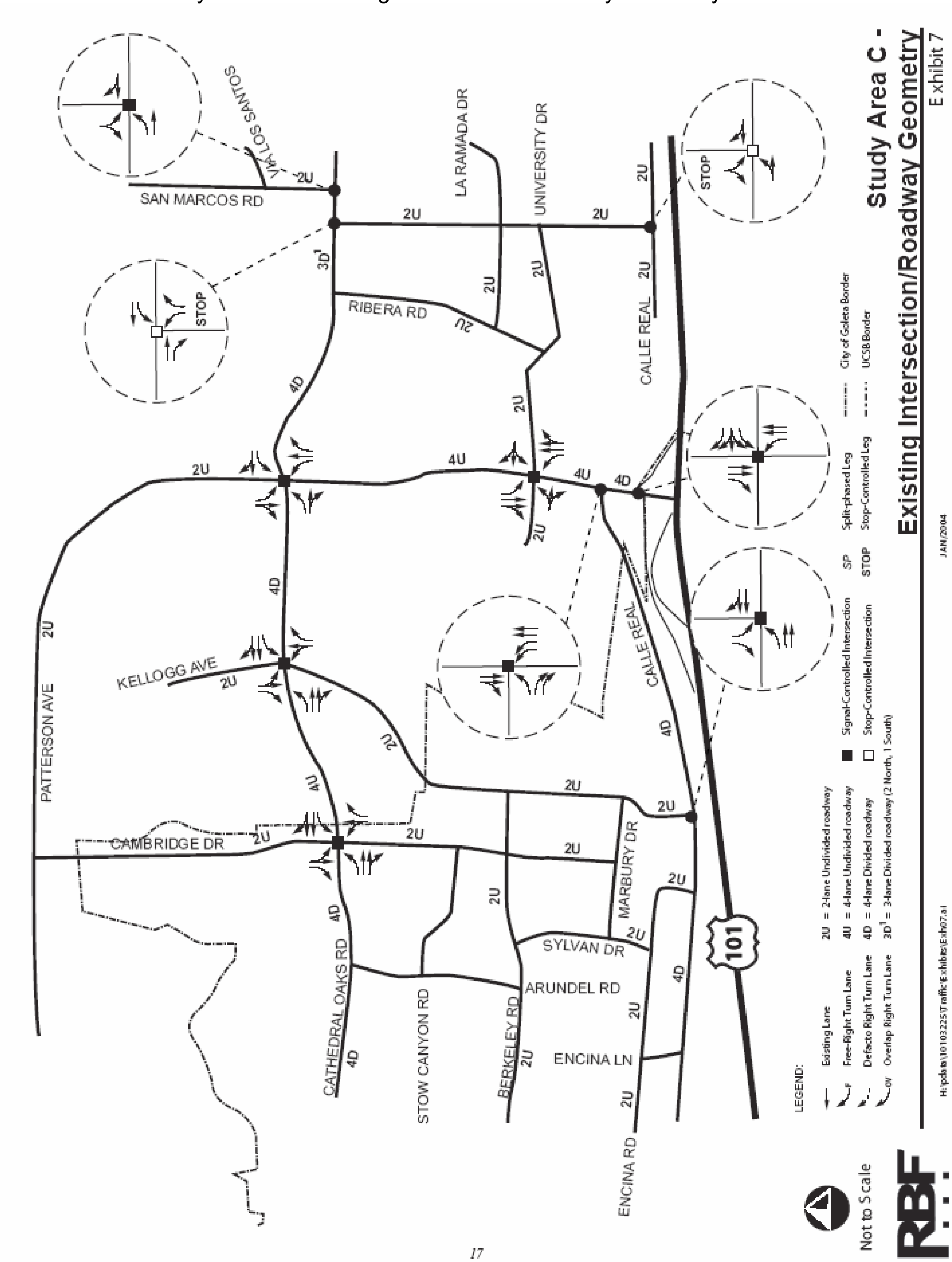

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EXHIBIT 8 STUDY AREA D – EXISTING INTERSECTION/ROADWAY GEOMETRY

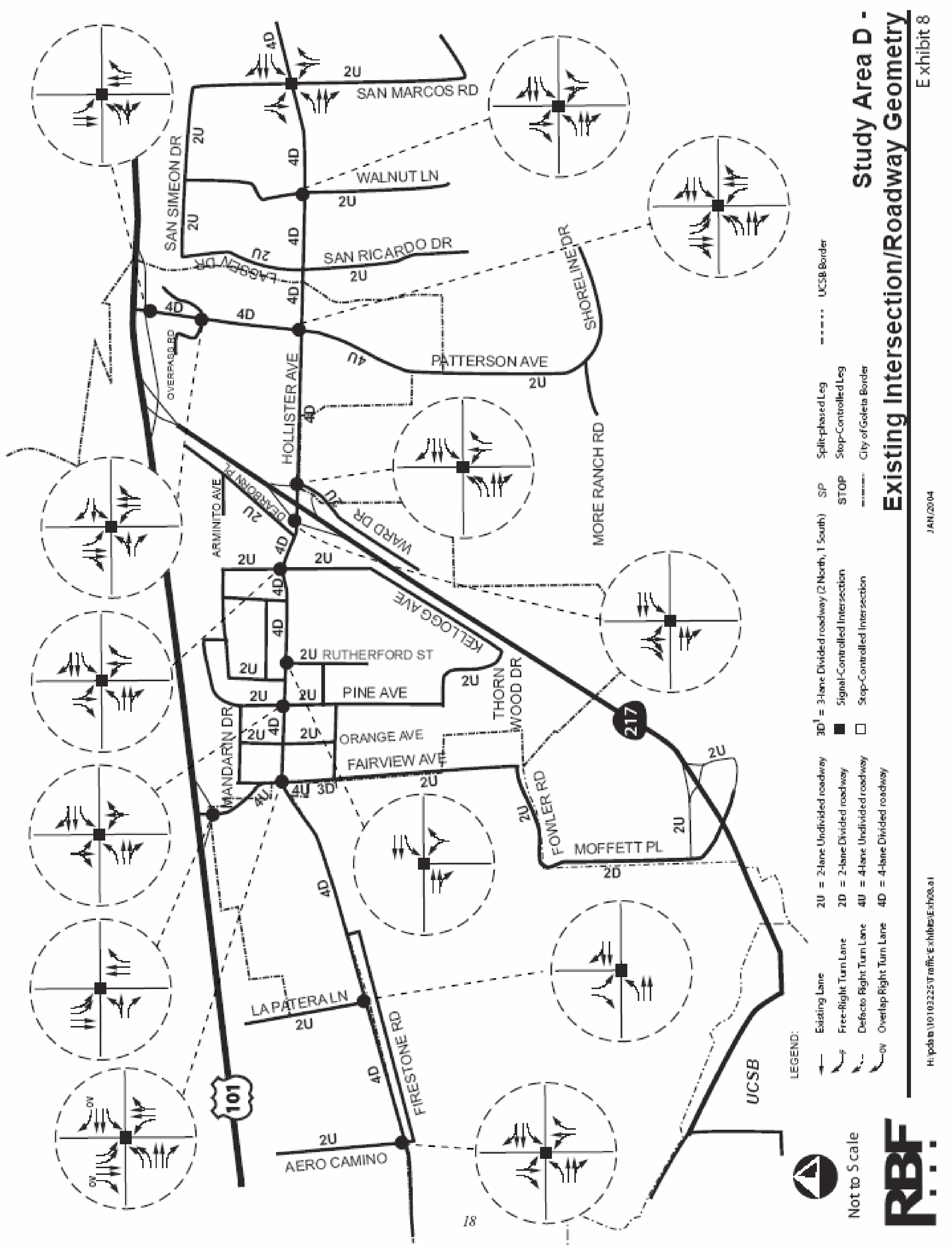

EXHIBIT 9 – VOLUMES A

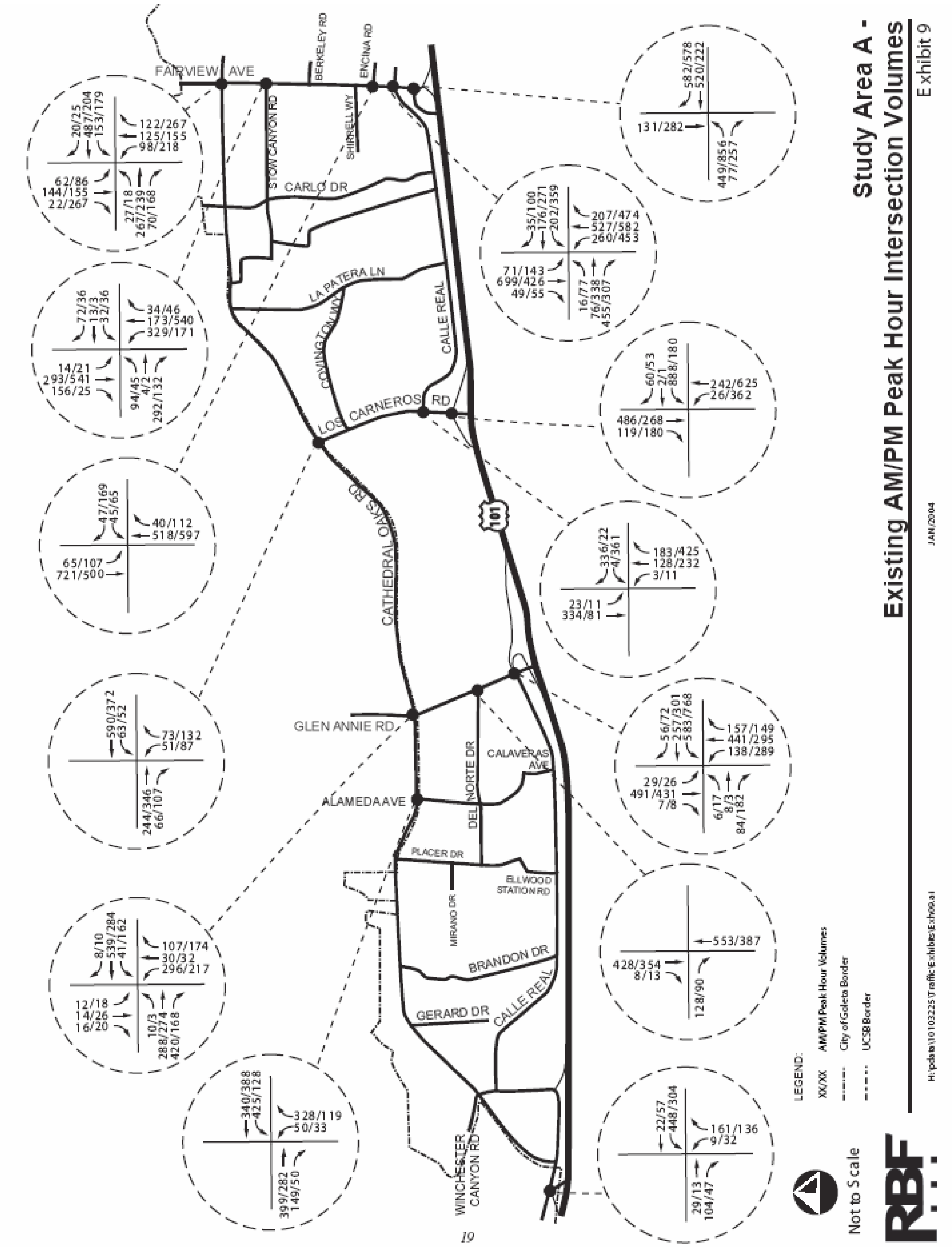

EXHIBIT 10 VOLUMES B

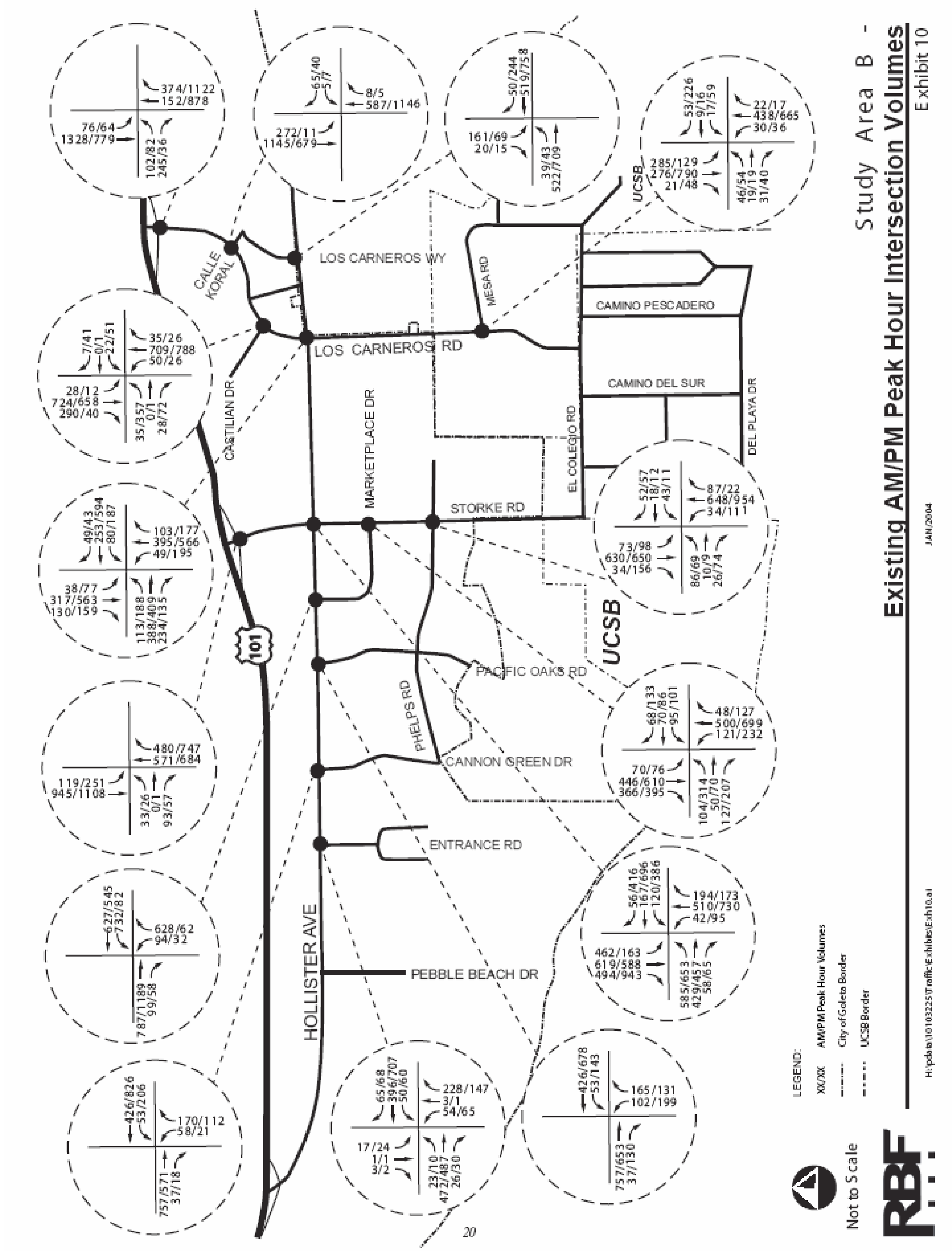

EXHIBIT 11 – VOLUMES C

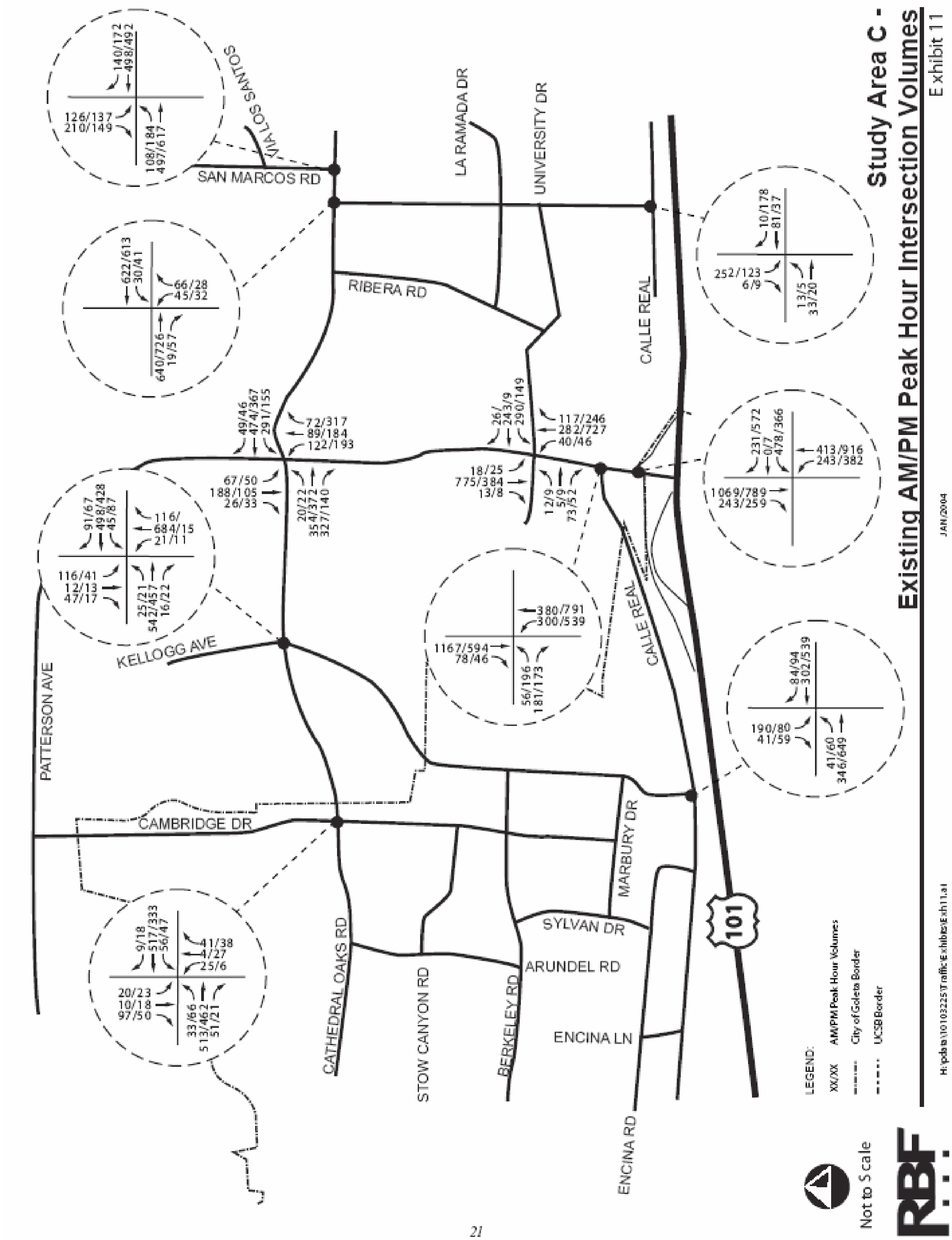

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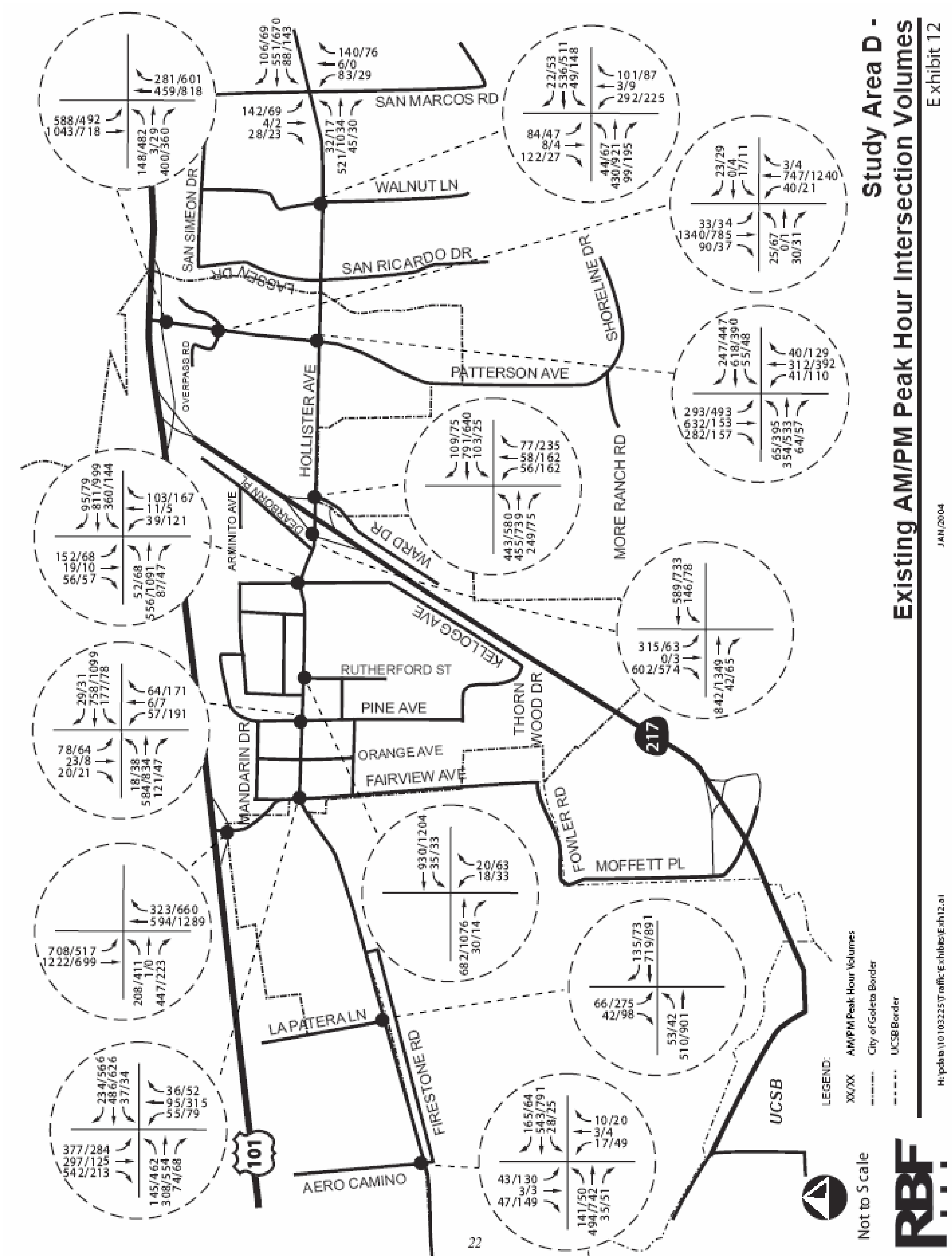
exhibit 12 – volumes d



EXISTING CONDITIONS LEVEL OF SERVICE

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection.

Intersection Capacity Utilization

Intersection capacity analysis evaluates the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on corresponding Volume/Capacity (V/C) ratios shown in Table 2, *Level of Service & V/C Ratio*.

Table 2
LEVEL OF SERVICE & V/C RATIO

LOS	Description of Operation	V/C Ratio
A	Describes primarily free-flow conditions at average travel speeds. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delay at intersections is minimal.	< 0.60
B	Represents reasonably unimpeded operations at average travel speeds. The ability to maneuver in the traffic stream is slightly restricted and delays are not bothersome.	0.61 - 0.70
C	Represents stable operations, however, ability to change lanes and maneuver may be more restricted than LOS B and longer queues are experienced at intersections.	0.71 - 0.80
D	Congestion occurs and a small change in volumes increases delays substantially.	0.81 - 0.90
E	Severe congestion occurs with extensive delays and low travel speeds occur.	0.91 - 1.00
F	Characterizes arterial flow at extremely low speeds and intersection congestion occurs with high delays and extensive queuing.	> 1.00

The City of Goleta uses the Intersection Capacity Utilization (ICU) analysis method to calculate level of service for existing conditions at each of the City's signal controlled intersections. This ICU analysis method was adopted by the Santa Barbara County Association of Governments and is being utilized by each agency within Santa Barbara County. Within the ICU method, the City of Goleta uses a saturation flow rate of 1,600 vehicles per hour per lane and a loss time factor of 10 percent (0.10) per signal cycle. For each intersection approach, the right turn movement volumes are added into the through movement volumes unless there is a clearly striped separate right turn lane. Additionally, the City's level of service calculation procedures do not incorporate any right turn on red reduction factors for standard signalized intersections within the City. However, for the Storke Road/Hollister Avenue intersection, which is a nonstandard signalized intersection with right turn yield movements, the City uses right turn on red reduction factors to account for vehicles turning right on red from the yield sign controlled approaches to that intersection.

The Intersection Capacity Utilization (ICU) analysis method is currently being used by several agencies in San Luis Obispo, Santa Barbara, Ventura and Los Angeles counties. Within these counties, the cities of Calabasas, Camarillo and Westlake Village use ICU calculation procedures that generally do not apply right turn on red reductions (with exceptions for these cities only being noted in special circumstances). As a conservative level of service calculation procedure, the City of Goleta has prepared this baseline conditions report with ICU calculation procedures that will provide a worst case analysis for the signalized intersections within the City.

The 2000 Highway Capacity Manual (HCM) Operational Analysis Methodology is used to evaluate the operation of unsignalized study intersections, where the LOS of study intersections is based on the delay experienced per vehicle. The LOS delay ranges for unsignalized intersections are summarized in Table 3, *Level of Service & Delay Ranges*.

Table 3
LEVEL OF SERVICE & DELAY RANGES

LOS	Description of Operation	Unsignalized Intersections: Average Total Delay Per Vehicle (Seconds)
A	Describes primarily free-flow conditions at average travel speeds. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delay at intersections is minimal.	0 - 10.0
B	Represents reasonably unimpeded operations at average travel speeds. The ability to maneuver in the traffic stream is slightly restricted and delays are not bothersome.	10.01 - 15.0
C	Represents stable operations, however, ability to change lanes and maneuver may be more restricted than LOS B and longer queues are experienced at intersections.	15.01 - 25.0
D	Congestion occurs and a small change in volumes increases delays substantially.	25.01 - 35.0
E	Severe congestion occurs with extensive delays and low travel speeds occur.	35.01 - 50.0
F	Characterizes arterial flow at extremely low speeds and intersection congestion occurs with high delays and extensive queuing.	50.01 & up
Source: 2000 Highway Capacity Manual		

City Target Level of Service

Exhibits 13 through 16 show the existing a.m. and p.m. peak hour LOS and corresponding V/C ratio or Delay of the study intersections. Table 4, *City of Goleta Signalized Intersections Existing Peak Hour Level of Service*, summarizes the existing a.m. and p.m. peak hour LOS of the City of Goleta signalized study intersections; note table is organized first by major east/west corridors followed by north/south corridors, hence some intersections are listed twice. Detailed LOS analysis sheets are provided in Appendix B.

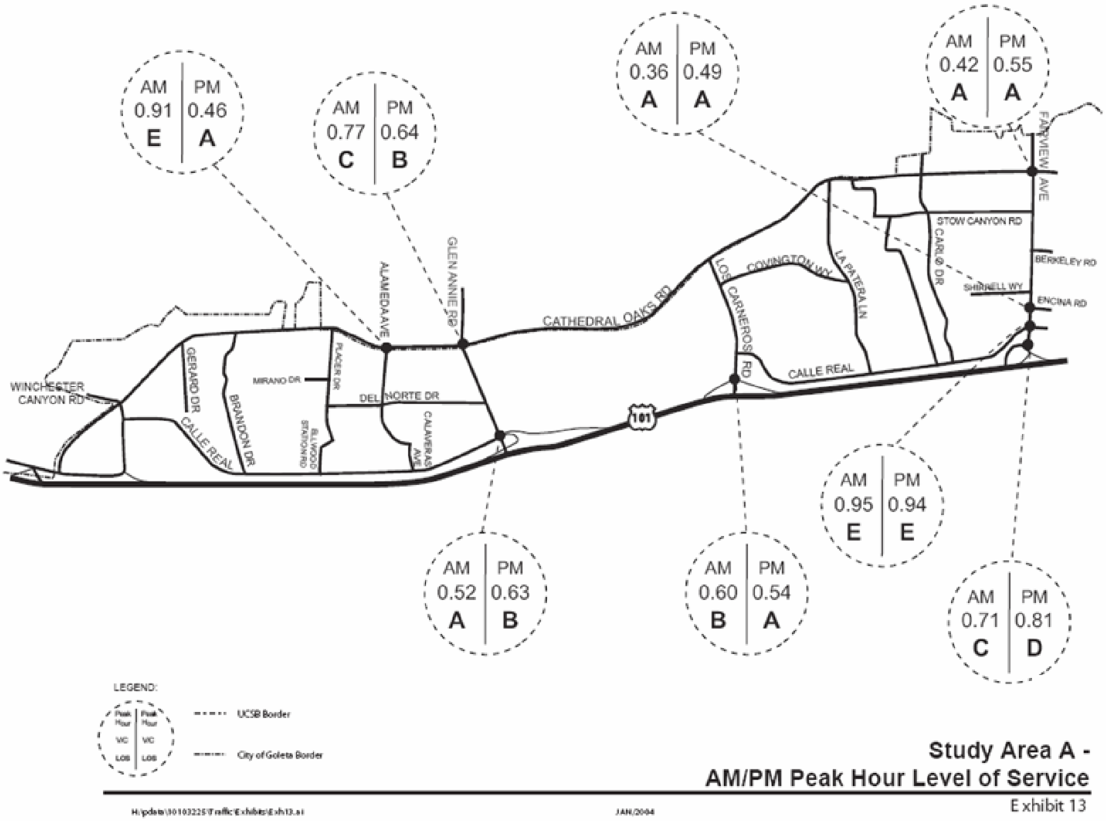
Table 4
CITY OF GOLETA SIGNALZED INTERSECTIONS
EXISTING PEAK HOUR LEVEL OF SERVICE

Study Intersection (Map #)	V/C		Delay		LOS	
	AM	PM	AM	PM	AM	PM
Calle Real/Fairview Ave (28)	**0.95**	**0.94**	**N/A**	**N/A**	**E**	**E**
Calle Real/Kellogg Ave (35)	0.37	0.39	N/A	N/A	A	A
Calle Real/Patterson Ave (41)*	0.64	0.64	N/A	N/A	B	B
Cathedral Oaks Rd/Alameda Ave (13)	**0.91**	**0.46**	**N/A**	**N/A**	**E**	**A**
Cathedral Oaks Rd/Glen Annie Rd. (9)	0.77	0.64	N/A	N/A	C	B
Cathedral Oaks Rd/Fairview Ave (25)	0.42	0.55	N/A	N/A	A	A
Cathedral Oaks Rd/Cambridge Dr. (33)	0.39	0.32	N/A	N/A	A	A
Cathedral Oaks Rd/Kellogg Ave (34)*	0.40	0.37	N/A	N/A	A	A
Cathedral Oaks Rd/Patterson Ave (39)*	0.71	0.66	N/A	N/A	C	B
Cathedral Oaks Rd/San Marcos Rd East (48)*	**0.78**	**0.81**	**N/A**	**N/A**	**C**	**D**
Fairview Ave/Cathedral Oaks Rd (25)	0.42	0.55	N/A	N/A	A	A
Fairview Ave/Encina Rd (27)	0.36	0.49	N/A	N/A	A	A
Fairview Ave/Calle Real (28)	**0.95**	**0.94**	**N/A**	**N/A**	**E**	**E**
Fairview Ave/US-101 NB Ramps (29)	***0.71***	***0.81***	***N/A***	***N/A***	***C***	***D***
Fairview Ave/US-101 SB Ramps (51)[2]	**0.98**	**0.99**	**N/A**	**N/A**	**E**	**E**
Fairview Ave/Hollister Ave (30)	*0.67*	*0.71*	*N/A*	*N/A*	*B*	*C*
Glen Annie Rd/Cathedral Oaks Rd (9)	0.77	0.64	N/A	N/A	C	B
Glen Annie Rd/US-101 NB Ramps (11)	0.52	0.63	N/A	N/A	A	B
Glen Annie Rd/US-101 SB Ramps (12)	0.50	0.68	N/A	N/A	A	B
Hollister Ave/Entrance Rd (2)	0.44	0.46	N/A	N/A	A	A
Hollister Ave/Pacific Oaks Rd (4)	0.53	0.56	N/A	N/A	A	A
Hollister Ave/Marketplace Dr (5)	0.74	0.52	N/A	N/A	C	A
Hollister Ave/Storke Rd (6)[1]	***0.66***	***0.91***	***N/A***	***N/A***	***B***	***E***
Hollister Ave/Los Carneros Rd (20)[1]	0.49	0.69	N/A	N/A	A	B
Hollister Ave/Los Carneros Way (22)	0.35	0.46	N/A	N/A	A	A
Hollister Ave/Aero Camino (23)	0.45	0.52	N/A	N/A	A	A

Study Intersection (Map #)	V/C		Delay		LOS	
	AM	PM	AM	PM	AM	PM
Hollister Ave/La Patera Ln (24)	0.44	0.60	N/A	N/A	A	A
Hollister Ave/Fairview Ave (30)	0.67	0.71	N/A	N/A	B	C
Hollister Ave/Pine Ave (31)	0.56	0.75	N/A	N/A	A	C
Hollister Ave/Rutherford St (32)	0.41	0.54	N/A	N/A	A	A
Hollister Ave/Kellogg Ave (36)	0.69	0.69	N/A	N/A	B	B
Hollister Ave/SR-217 SB Ramps (37)	0.75	0.79	N/A	N/A	C	C
Hollister Ave/Ward Dr (38)	0.56	0.68	N/A	N/A	A	B
Hollister Ave/Patterson Ave (45)	**0.70**	**0.82**	**N/A**	**N/A**	**C**	**D**
Hollister Ave/Walnut Ln (46)*	0.56	0.72	N/A	N/A	A	C
Hollister Ave/San Marcos Rd (50)*	0.51	0.61	N/A	N/A	A	B
Los Carneros Rd/US-101 NB Ramps (16)	0.60	0.54	N/A	N/A	B	A
Los Carneros Rd/US-101 SB Ramps (17)[3]	**0.67**	**0.89**	**N/A**	**N/A**	**B**	**D**
Los Carneros Rd/Calle Koral (18)	0.50	0.49	N/A	N/A	A	A
Los Carneros Rd/Castilian Dr (19)	0.49	0.64	N/A	N/A	A	B
Los Carneros Rd/Hollister Ave (20)[1]	0.49	0.69	N/A	N/A	A	B
Los Carneros Rd/Mesa Road (21)*	**0.63**	**0.83**	**N/A**	**N/A**	**B**	**D**
Patterson Ave/Cathedral Oaks Rd (39)*	0.71	0.66	N/A	N/A	C	B
Patterson Ave/University Dr (40)*	0.61	0.56	N/A	N/A	B	A
Patterson Ave/Calle Real (41)*	0.64	0.64	N/A	N/A	B	B
Patterson Ave/US-101 NB Ramps (42)	0.73	0.78	N/A	N/A	C	C
Patterson Ave/US-101 SB Ramps (43)	***0.90***	***1.06***	***N/A***	***N/A***	***D***	***F***
Patterson Ave/Overpass Rd (44)	0.60	0.63	N/A	N/A	B	B
Patterson Ave/Hollister Ave (45)	***0.70***	***0.82***	***N/A***	***N/A***	***C***	*D*
Storke Rd/Hollister Ave (6)[1]	**0.66**	**0.91**	**N/A**	**N/A**	**B**	**E**
Storke Rd/Marketplace Dr (7)	**0.83**	**0.79**	**N/A**	**N/A**	**D**	**C**
Storke Rd/Phelps Rd (8)	0.50	0.56	N/A	N/A	A	A

N/A = Not Applicable. Deficient intersection operation shown in bold. * Intersection outside City of Goleta
[1] Counted in January 2004 [2] Counted in October 2003 [3] P.M. peak hour counted in November 2003

Exhibit 13-14 – LOS & V/C Areas A & B



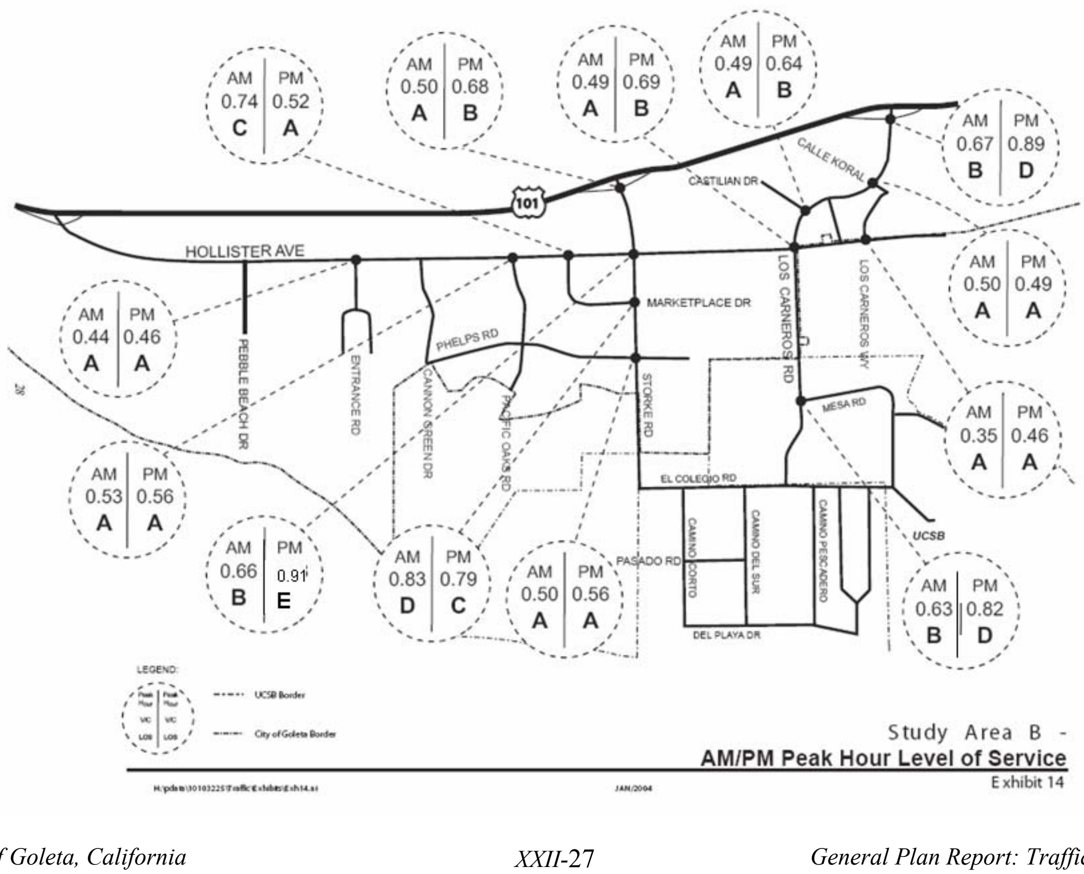
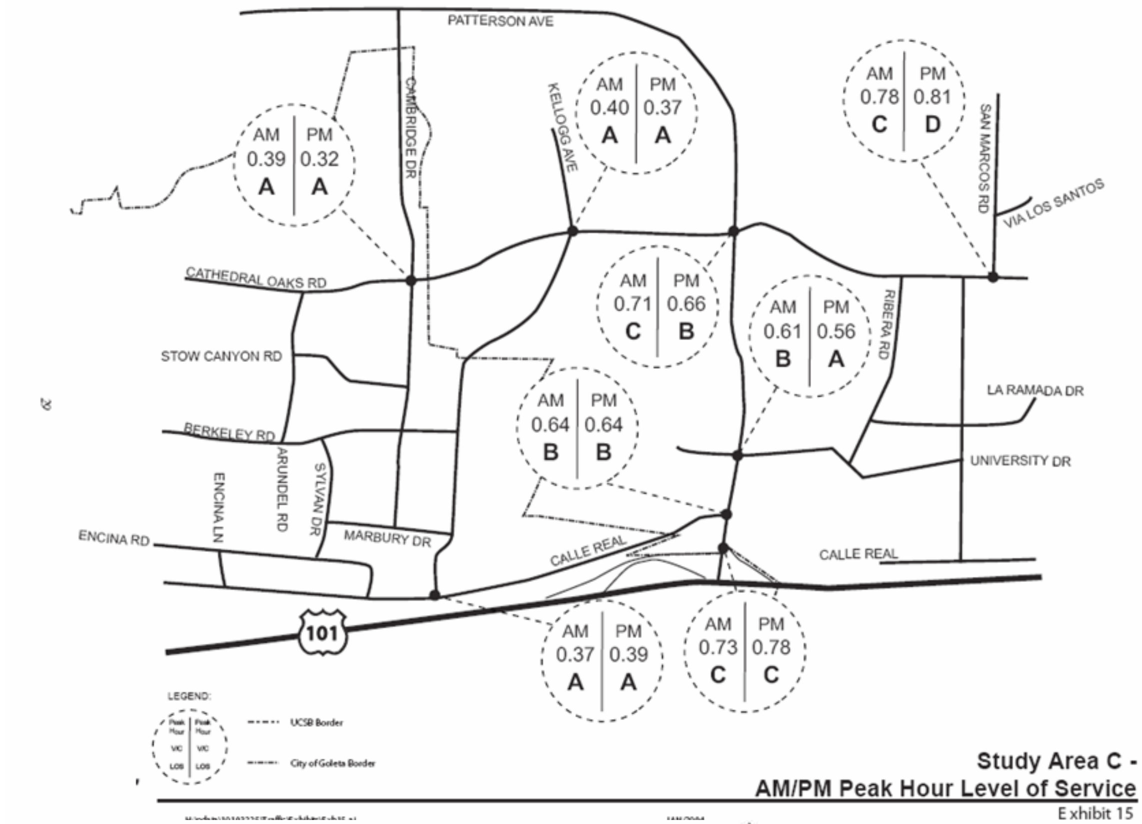
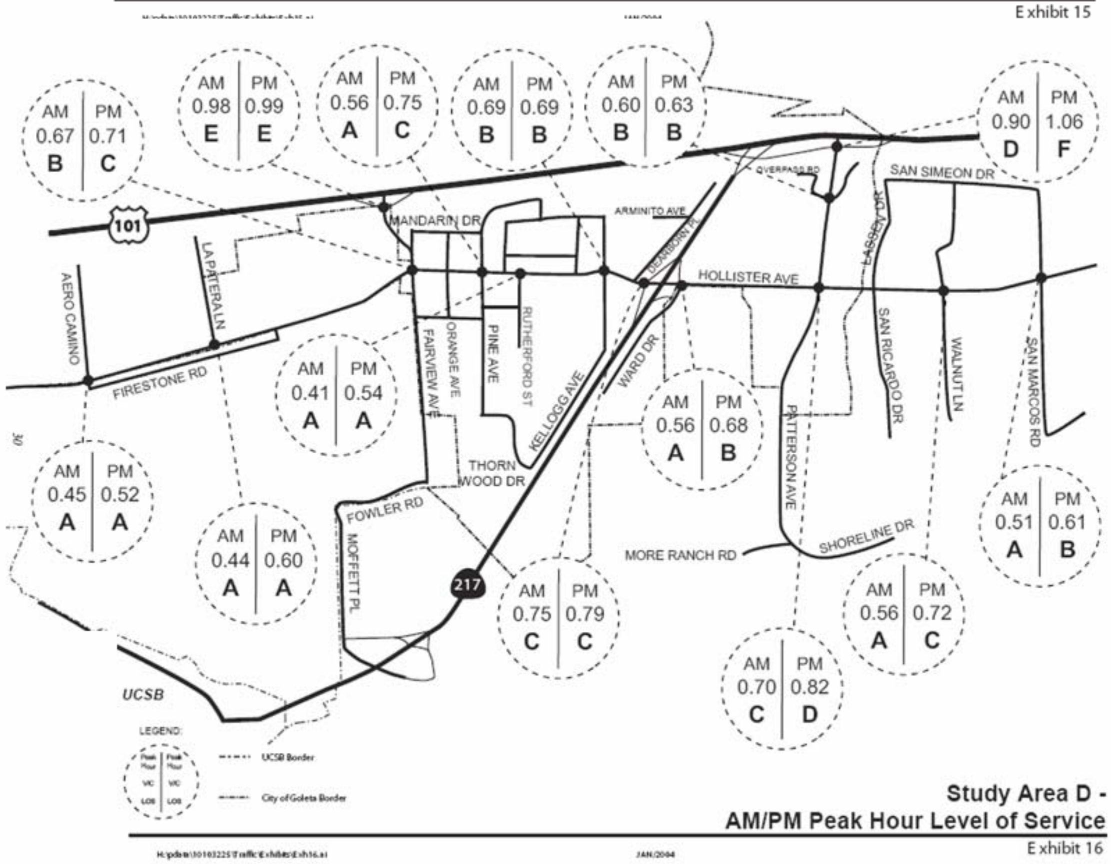


Exhibit 15-16 – LOS & V/C Areas C&D





As shown in Table 4, 11 signalized study intersections are currently operating at a deficient LOS (LOS D or worse); intersections located outside of the City of Goleta are denoted with an asterisk:

- Calle Real/Fairview Avenue (both a.m. and p.m. peak hours)
- Cathedral Oaks Road/Alameda Avenue (a.m. peak hour only)
- Cathedral Oaks Road/San Marcos Road East (p.m. peak hour only)*
- Fairview Avenue/US-101 Southbound Ramps (both a.m. and p.m. peak hours)
- Hollister Avenue/Storke Road (p.m. peak hour only)
- Hollister Avenue/Patterson Avenue (p.m. peak hour only)
- Los Carneros Road/US-101 Southbound Ramps (p.m. peak hour only)
- Los Carneros Road/Mesa Road (p.m. peak hour only)*
- Patterson Avenue/US-101 Southbound Ramps (both a.m. and p.m. peak hours)
- Storke Road/Marketplace Drive (a.m. peak hour only)

Table 5, *City of Goleta Unsignalized Intersections Existing Peak Hour Level of Service*, summarizes the existing a.m. and p.m. peak hour LOS of the City of Goleta unsignalized study intersections; note table is organized first by major east/west corridors followed by north/south corridors. Detailed LOS analysis sheets are provided in Appendix B.

Table 5
CITY OF GOLETA UNSIGNALIZED INTERSECTIONS
EXISTING PEAK HOUR LEVEL OF SERVICE

Study Intersection (Map #)	V/C		Delay		LOS	
	AM	PM	AM	PM	AM	PM
Calle Real/Los Carneros Rd (15)	N/A	N/A	16.4	16.0	C	C
Calle Real/San Marcos Rd (49)*	N/A	N/A	10.7	10.1	B	B
Cathedral Oaks Rd/Los Carneros Rd (14)	N/A	N/A	16.7	19.7	C	C
Cathedral Oaks Rd/San Marcos Rd West (47)*	**N/A**	**N/A**	**21.8**	**26.0**	**C**	**D**
Fairview Ave/Stow Canyon Rd (26)	**N/A**	**N/A**	**244.3**	**60.5**	**F**	**F**
Glen Annie Rd/Del Norte Dr (10)	N/A	N/A	10.1	9.7	B	A
Hollister Ave/Calle Real (1)	N/A	N/A	5.8	4.6	B	A
Hollister Ave/Cannon Green Dr (3)	**N/A**	**N/A**	**25.1**	**19.3**	**D**	**C**
N/A = Not Applicable. Deficient intersection operation shown in bold. * Intersection outside City of Goleta						

As shown in Table 5, 3 unsignalized study intersections are currently operating at a deficient LOS

(LOS D or worse); intersections located outside of the City of Goleta are denoted with an asterisk:

- Cathedral Oaks Road/ San Marcos Road West (p.m. peak hour only)*
- Fairview Avenue/Stow Canyon Road (both a.m. and p.m. peak hours)
- Hollister Avenue/Cannon Green Drive (a.m. peak hour only)

TRANSIT FACILITIES

Existing Bus Operations

Santa Barbara Metropolitan Transit District (MTD) operates bus routes within Santa Barbara County. Exhibit 17, *Bus Routes*, shows MTD bus routes operating within the City of Goleta. Specific bus routes have been developed to serve the University of California, Santa Barbara (UCSB) campus.

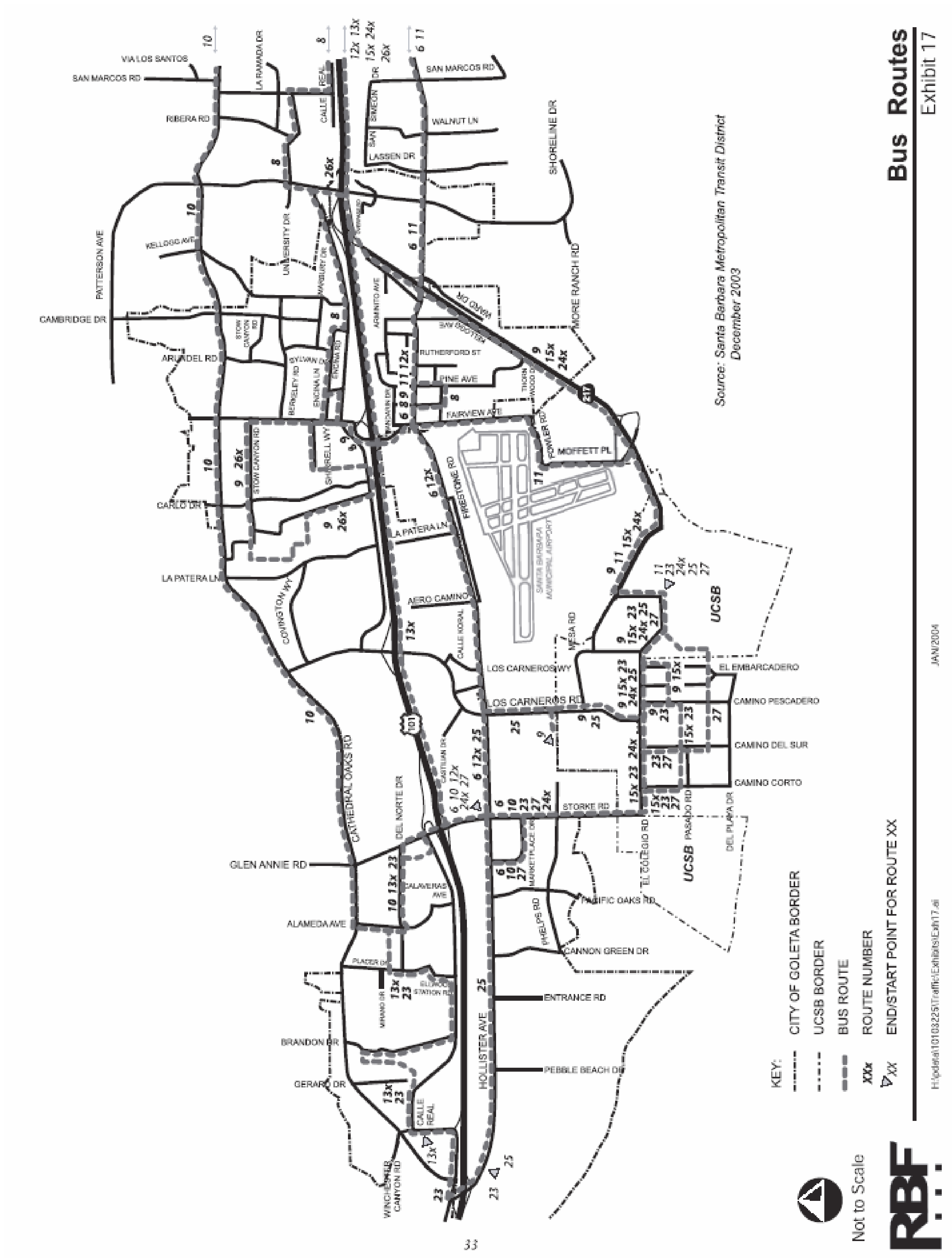
As shown in Table 6, during the Fiscal year beginning July 1, 2002, MTD provided service to approximately 3,167,300 users on bus routes traveling within the City of Goleta. It should be noted that only four MTD routes traveled exclusively within the City of Goleta and UC Santa Barbara.

Table 6
Fiscal Year 2003 Santa Barbara Metropolitan Transit District Ridership Goleta Area

Route Number	Route Name	Passengers (One-Way Trips)	Route Exclusively Within City of Goleta and UCSB
6	State/Hollister Traveler	623,296	No
8	Health Care Link	261,547	No
9	Stow Cyn/UCSB Connection	63,764	Yes
10	Cathedral Oaks	38,438	No
11	Downtown/UCSB Connection	896,048	No
12x	Goleta Express	284,778	No
13x	Winchester Cyn Express	4,582	No
15x	SBCC/UCSB Express	147,932	No
23	Winchester Canyon	209,090	Yes
24x	UCSB Express	381,175	No
25	Ellwood	147,386	Yes
26x	North Fairview Express	4,774	No
27	UCSB Shuttle	104,491	Yes
Total		3,167,301	

Note: Fiscal year (FY) 2003 included the period from July 1, 2002, through June 30, 2003.
Source: Santa Barbara Metropolitan Transit District.

Exhibit 17


Bus Routes
Exhibit 17
Source: Santa Barbara Metropolitan Transit District
December 2003
KEY:
CITY OF GOLETA BORDER
UCSB BORDER
BUS ROUTE
ROUTE NUMBER
END/START POINT FOR ROUTE XX
Not to Scale
JAN/2004
UCSB
HOLLISTER AVE
CATHEDRAL OAKS RD
LOS CARNEROS RD
STORKE RD
GLEN ANNIE RD
33

Santa Barbara Airbus operates a bus route to Los Angeles International Airport (LAX) with a stop in the City of Goleta at 5755 Thornwood Drive.

Easy Lift, a non-profit organization provides and coordinates transit services for frail elderly and temporarily or permanently disabled individuals. During the 2003 calendar year, Easy Lift provided Dial-A-Ride service to approximately 10,500 users in the City of Goleta.

Existing Rail Operations

The Goleta Amtrak station is located at the north end of La Patera Lane in the City of Goleta, near the Santa Barbara Airport (refer to Exhibit 18, *Goleta Amtrak Station Location*). Four daily trains provide service to/from San Diego and Paso Robles. During the fiscal year ending 2000, Amtrak provided service to approximately 16,500 users in the City of Goleta at the La Patera station. As a comparison, during the fiscal year ending 1999, Amtrak provided service to approximately 14,600 users in the City of Goleta at the La Patera station.

Bicycle Trail System

The City of Goleta bicycle trail system provides recreational and commuter opportunities. Exhibit 19, *City of Goleta Existing Bicycle Route Map*, shows bicycle trails within the City of Goleta for the following four designations:

- Class I Bike Trail;
- Class II Bike Trail;
- Class III Bike Trail; and
- Alternate Route Bike Trail.

Class I Bike Trail (Bicycle Path)

This type of facility is a special path for exclusive use by bicycles that is completely separated from the motor vehicle traffic by space or a physical barrier. Per Caltrans standards, these routes are referred to as Class I bike facilities. They are often provided in recreational areas, such as parks or along the beach.

Class II Bike Trail (Bicycle Lane)

A Class II Bike Trail is a bicycle facility where a portion of the paved roadway area is marked as a lane for use by bicycles. It is identified by BIKE LANE signage, pavement marking and lane line markings. Usually, special ordinances are necessary to legally define the exclusive use of bicycle traffic. Per Caltrans standards, these routes are referred to as Class II bike facilities.

Class III Bike Trail (Bicycle Route)

A Class III Bike Trail is a bicycle way designated within a public right-of-way. The purpose of the bicycle route is primarily that of transportation, allowing the bicyclist to travel from one point in the City to another. A "shared bicycle route" is a street identified as a bicycle facility by BIKE ROUTE signage only. No special markings on the pavement are provided. Per Caltrans standards, these routes are referred to as Class III bike facilities.

Exhibit 18

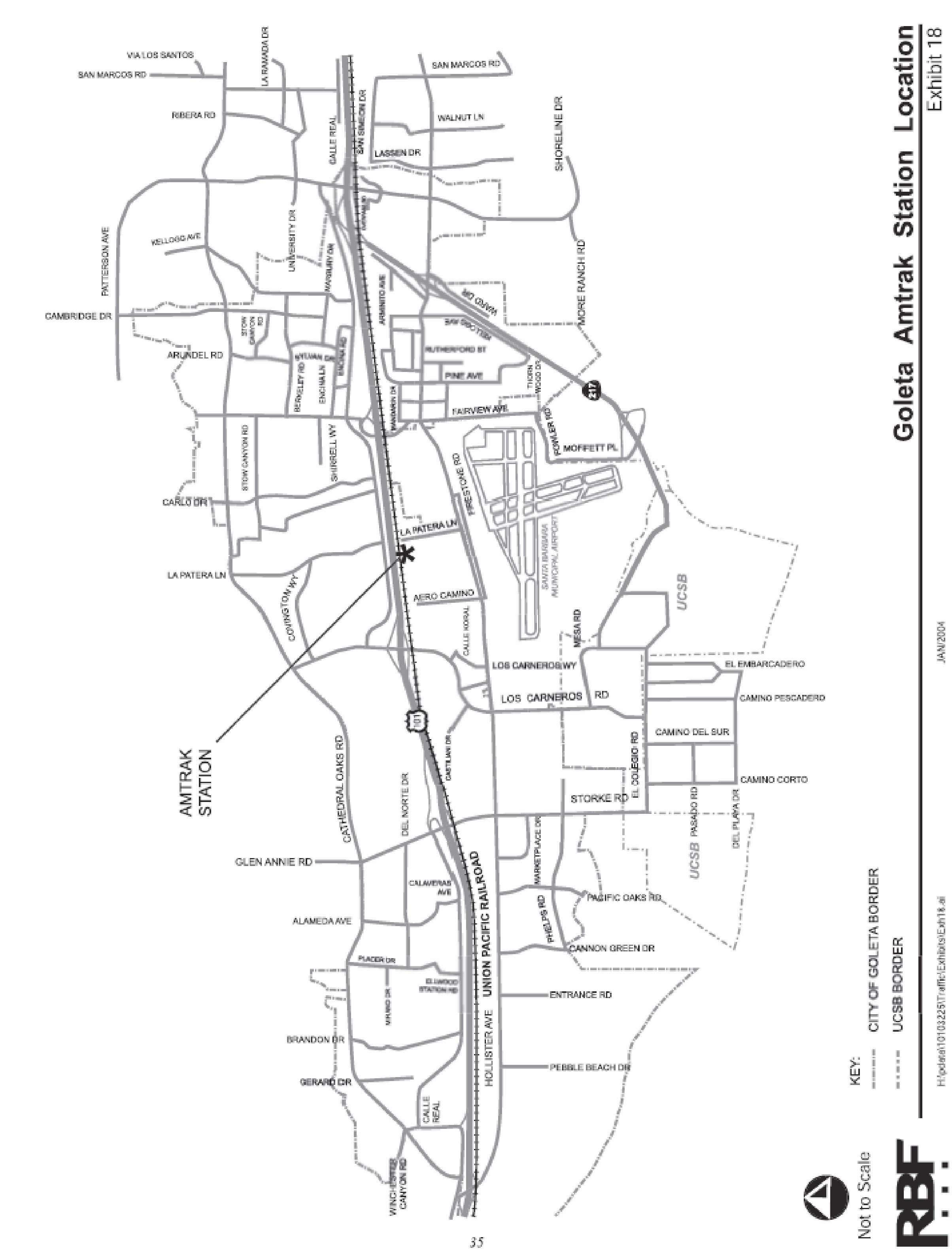
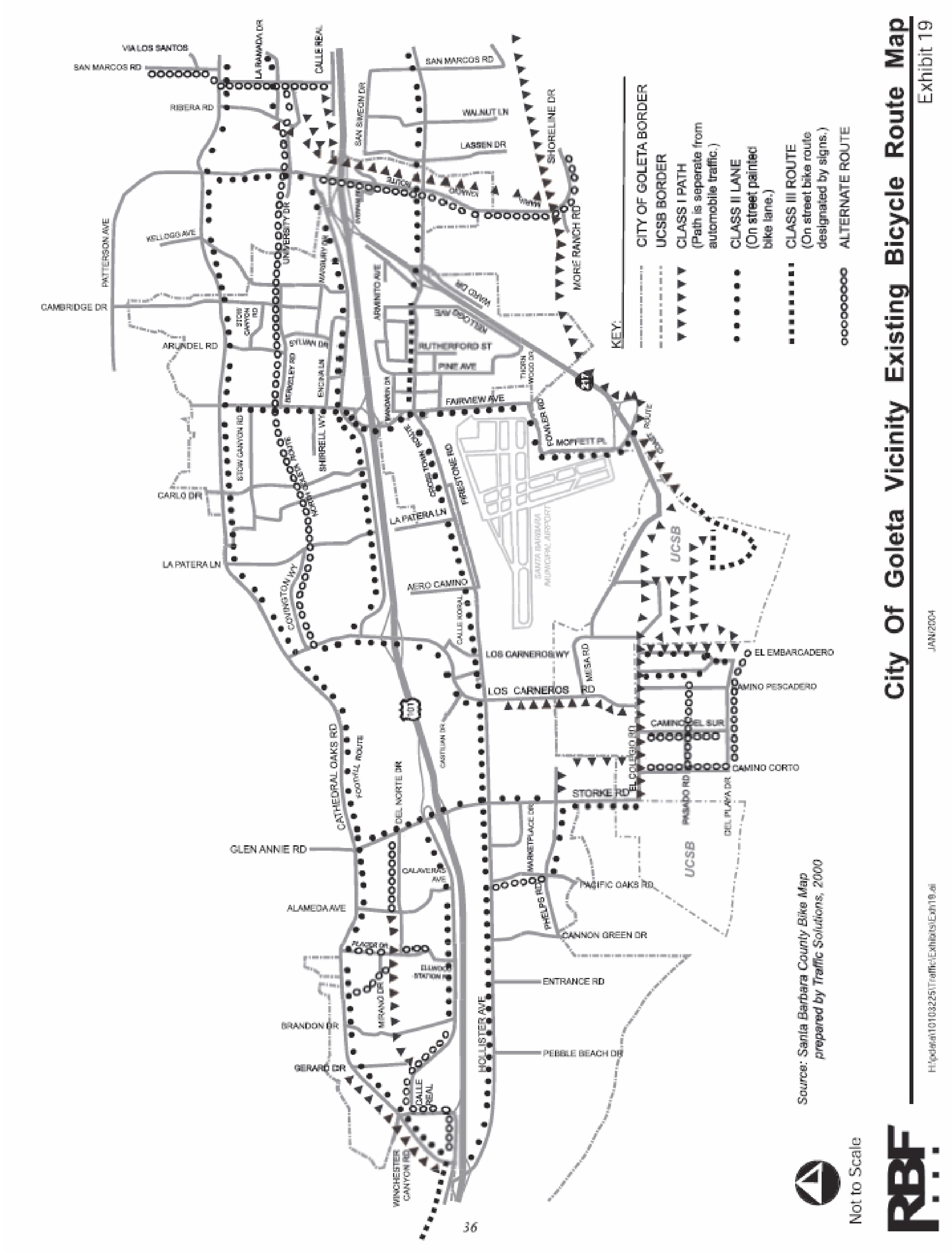

Goleta Amtrak Station Location
Exhibit 18
AMTRAK STATION
UNION PACIFIC RAILROAD
HOLLISTER AVE
LOS CARNEROS RD
LOS CARNEROS WY
STORKE RD
CATHEDRAL OAKS RD
GLEN ANNIE RD
LA PATERA LN
AERO CAMINO
FAIRVIEW AVE
CAMBRIDGE DR
SAN MARCOS RD
UCSB
KEY:
CITY OF GOLETA BORDER
UCSB BORDER
Not to Scale
JAN/2004
35

Exhibit 19



City Of Goleta Vicinity Existing Bicycle Route Map
Exhibit 19
KEY:
CITY OF GOLETA BORDER
UCSB BORDER
CLASS I PATH
(Path is seperate from automobile traffic.)
CLASS II LANE
(On street painted bike lane.)
CLASS III ROUTE
(On street bike route designated by signs.)
ALTERNATE ROUTE
Source: Santa Barbara County Bike Map
prepared by Traffic Solutions, 2000
JAN/2004
Not to Scale
RBF

Alternate Route Bike Trail

Alternate Route Bike Trails provide additional bicycle routes throughout the City, many times providing a connection between Class I, II and III bicycle facilities.

AIRPORT FACILITIES

Santa Barbara Municipal Airport

The Santa Barbara Municipal Airport is located on approximately 950 acres of land surrounded by the City of Goleta and unincorporated Santa Barbara County (refer to Exhibit 20, *Santa Barbara Municipal Airport Location)*. Regional access to Santa Barbara Municipal Airport is provided by US-101 interchanges at Los Carneros Road and Fairview Avenue and by SR-217 interchanges at Hollister Avenue and Moffett Place/Sandspit Road. In Spring 2003, the airport was served by four regional/commuter airlines, operating a total of 43 daily non-stop flights to seven destinations. In July 2003 a fifth airline initiated service at the Airport. In 2002, passenger enplanement (including general aviation, airline, air cargo, air taxi and military operations) at the airport was 367,172.[1]

EXISTING STREET PAVEMENT NETWORK

The City's street pavement network consists of 86 centerline miles, equaling a total pavement area of approximately 16.2 million square feet.

Current Conditions

The condition of the City of Goleta road network based on the fall 2000 inspection is shown in Table 7.

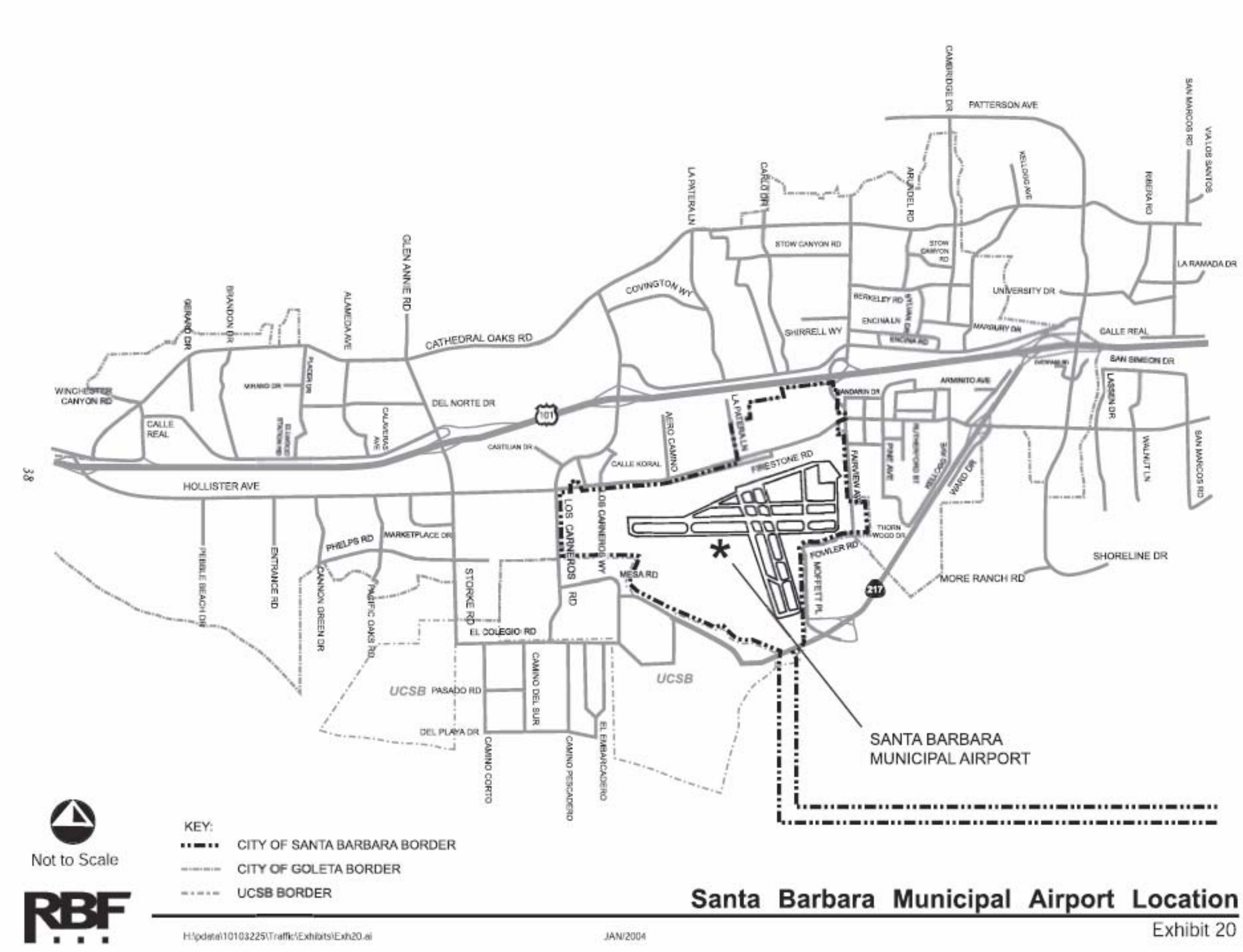
Table 7
VEHICLE MILES BY ROADWAY CATEGORY

Category	Definition	Length Miles	% of Total	Average PCI
A	Principal/Major Arterial	21.9	25.5	65
B	Major Collector/Minor Arterial	7.7	9.0	62.7
C	Minor Collector	18.7	21.7	56.6
D	Major Rural	0.1	0.1	99
E	Residential	37.5	43.6	54.2
X	Alleys	0.1	0.1	100
	Total System	**86**	**100.0%**	**58.4**

Goleta's street system weighted average PCI is 58.4 which corresponds to the lower end of the "good" range.

[1] Santa Barbara Airport Draft F.A.R. Part 150 Noise Compatibility Study, November 14, 2003.

Exhibit 20


PATTERSON AVE
CATHEDRAL OAKS RD
HOLLISTER AVE
CALLE REAL
SAN SIMEON DR
SHORELINE DR
MORE RANCH RD
FIRESTONE RD
UCSB
SANTA BARBARA
MUNICIPAL AIRPORT
KEY:
CITY OF SANTA BARBARA BORDER
CITY OF GOLETA BORDER
UCSB BORDER
Not to Scale
Santa Barbara Municipal Airport Location
Exhibit 20
JAN/2004

Planning Implications for the City of Goleta

The mobility of people to move easily between residential areas, employment areas and shopping areas is an important aspect of the community quality of life. This mobility depends on a safe and efficient transportation system that facilitates the flow of traffic, while enhancing pedestrian safety, and providing for alternative modes of transportation.

Issues considered in the subsequent General Plan work efforts, include: 1) improving and maintaining transportation infrastructure in the City; 2) protection of residential neighborhoods from traffic; 3) traffic in Old Town; 4) alternate forms of transportation.

Improving and Maintaining Transportation Infrastructure in the City

As the City looks to the future, items to consider include not only general street maintenance, but also the upgrade, signalization and installation of street lighting along certain streets. In addition, the City will work with County, state and federal agencies to improve the circulation systems serving Goleta.

Protection of Residential Neighborhoods from Traffic

Some residential streets in Goleta are used to bypass heavier traffic on arterials, thus creating negative traffic and safety impacts for residents in the neighborhood.

Traffic in Old Town

Hollister Avenue is a primary thoroughfare for both the City and the region, and bisects the Old Town area of the City. The Old Town area includes a mix of residential, commercial and industrial uses. The General Plan should review the roadway classifications for streets within the Old Town area to determine their appropriateness with respect to the goals of the City for the area, and to ensure that residences and businesses are not negatively impacted by traffic on Hollister Avenue.

Alternate Forms of Transportation

There are a variety of alternate forms of transportation that can be considered. The range of alternative choices could include additional bicycle routes, expanded public bus transportation systems, pedestrian systems, car pooling rail improvements, etc. The general plan should look to link transportation systems on a local, sub-regional and regional level.

REFERENCE MATERIALS

Amtrak Trains and Destinations, www.amtrak.com

Santa Barbara Metropolitan Transit District, www.sbmtd.gov

Santa Barbara County Bike Map, prepared by Traffic Solutions, 2000

County of Santa Barbara General Plan, Circulation Element, Amended December 1991.

Goleta Community Plan, prepared by the County of Santa Barbara Resource Management Department, August 1993.

Goleta Community Plan Final Environmental Impact Report, prepared by the County of Santa Barbara, August 1992.

Goleta Old Town Revitalization Plan, Proposed Final Environmental Impact Report, prepared by the County of Santa Barbara Planning & Development, Comprehensive Planning Division, June 1997.

Santa Barbara Airport Draft F.A.R. Part 150 Noise Compatibility Study, November 14, 2003.