

T E C H N I C A L M E M O R A N D U M

TO: Ahmad Sheikholeslami, Menlo Park City School District

FROM: Dennis M. Pascua
Principal Transportation Planner

DATE: January 14, 2014

SUBJECT: Existing plus Project Traffic Analysis for O'Connor Elementary School Site, City of Menlo Park

The following Technical Memorandum presents the Existing plus Project traffic analysis for the proposed O'Connor Elementary School Site (proposed project) that would replace the existing German American International School (GAIS) located at 275 Elliot Drive in the City of Menlo Park (City).

Introduction

The proposed project is the replacement of an existing 315 student private school (pre-school to grade 8), the German American International School (GAIS), with a 360 student public school (grades 3-5) that would primarily serve the surrounding neighborhoods. A majority of the students of the proposed school would be relocated from two other District schools further to the west of the project site: Encinal Elementary School and Laurel Elementary School. Strategically, the location of the proposed school would provide for a new elementary school in an unserved area of the District between Willow Road, the Bayshore Freeway (US 101), and Woodland Avenue.

The purpose of this analysis is to provide traffic-related project information to the District and City to determine whether further traffic analyses of off-site intersections and roadway segments are warranted. The traffic analysis has been prepared in accordance with the City's *Transportation Impact Analysis Guidelines*.

Methodology

Figure 1 illustrates the project study area intersections and their geometrics. The study area was developed in conjunction with City Engineering staff. The weekday a.m. peak hour only was analyzed for potential project impacts. The p.m. peak hour was not analyzed as there would be nominal traffic generated by the proposed elementary school during that time. The a.m. peak hour traffic counts were either collected in early November 2013 during a typical weekday, or were provided by the City from the May 2012 city-wide biannual traffic counts. Table A presents a list of the study area intersections and their traffic count dates. The raw traffic count sheets are provided in Attachment 1.

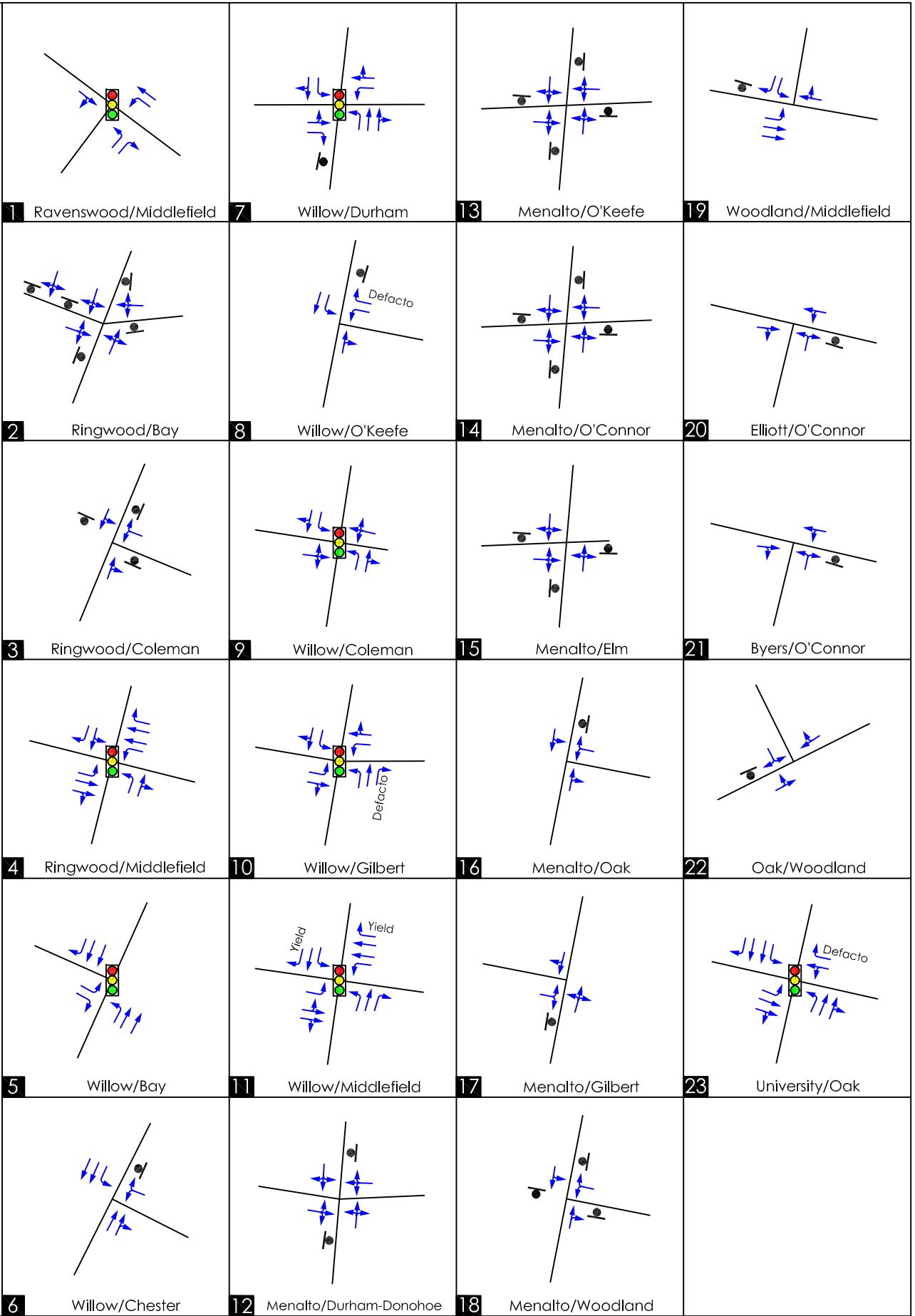


Figure 1
Existing Traffic Controls and Geometrics

Table A – Study Area Intersections

Intersection	Count Date
1. Ravenswood Avenue/Middlefield Road	May 2012
2. Ringwood Avenue/Bay Road	November 2013
3. Ringwood Avenue/Coleman Avenue	November 2013
4. Ringwood Avenue/Middlefield Road	May 2012
5. Willow Road/Bay Road	May 2012
6. Willow Road/Chester Street	November 2013
7. Willow Road/Durham Street	May 2012
8. Willow Road/O'Keefe Street	November 2013
9. Willow Road/Coleman Avenue	May 2012
10. Willow Road/Gilbert Avenue	May 2012
11. Willow Road/Middlefield Road	May 2012
12. Menalto Avenue/Durham St-Donohoe St	November 2013
13. Menalto Avenue/O'Keefe Street	November 2013
14. Menalto Avenue/O'Connor Street	November 2013
15. Menalto Avenue/Elm Street	November 2013
16. Menalto Avenue/Oak Court	November 2013
17. Menalto Avenue/Gilbert Avenue	November 2013
18. Menalto Avenue/Woodland Avenue	November 2013
19. Woodland Avenue/Middlefield Road	November 2013
20. Elliot Drive/O'Connor Street	November 2013
21. Byers Drive/O'Connor Street	November 2013
22. Oak Court/Woodland Avenue	November 2013
23. University Avenue/Woodland Avenue	November 2013

All of the study area intersections were analyzed using the *Highway Capacity Manual* (HCM) "Operations" methodology. The HCM method determines the average control delay a driver may experience at the intersection. The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. A complete description of the meaning of level of service can be found in the Highway Research Board Special Report 209, *Highway Capacity Manual* (HCM 2000). Brief descriptions of the six levels of service for signalized and unsignalized intersections based on the HCM methodology are shown in Table B.

Table B – Level of Service Definitions

Level of Service	Control Delay in Seconds (signalized)	Control Delay in Seconds (unsignalized)
A	0.0 – 10.0 seconds	0.0 – 10.0 seconds
B	10.1 – 20.0 seconds	10.1 – 15.0 seconds
C	20.1 – 35.0 seconds	15.1 – 25.0 seconds
D	35.1 – 55.0 seconds	25.1 – 35.0 seconds
E	55.1 – 80.0 seconds	35.1 – 50.0 seconds
F	80.1 seconds or greater	50.1 seconds or greater

Significance Criteria

The following are the significance criteria per the City's *Traffic Impact Analysis Guidelines*:

1. A Project is considered to have a potentially "significant" traffic impact if the addition of project traffic causes an intersection on a collector street operating at LOS "A" through "C" to operate at an unacceptable level (LOS "D", "E" or "F") or have an increase of 23 seconds or greater in average vehicle delay, whichever comes first. A potential "significant" traffic impact shall also include a project that causes an intersection on arterial streets or local approaches to State controlled signalized intersections operating at LOS "A" through "D" to operate at an unacceptable level (LOS "E" or "F") or have an increase of 23 seconds or greater in average vehicle delay, whichever comes first.
2. A project is also considered to have a potentially "significant" traffic impact if the addition of project traffic causes an increase of more than 0.8 seconds of average delay to vehicles on all critical movements for intersections operating at a near term LOS "D" through "F" for collector streets and at a near term LOS "E" or "F" for arterial streets. For local approaches to State controlled signalized intersections, a project is considered to have a potentially "significant" impact if the addition of project traffic causes an increase of more than 0.8 seconds of delay to vehicles on the most critical movements for intersections operating at a near term LOS "E" or "F".

Project Description and Traffic Generation

The proposed project is the replacement of an existing 315 student private school (pre-school to grade 8), the German American International School (GAIS), with a 360 student public school (grades 3-5) that would primarily serve the surrounding neighborhoods. A majority of the students of the proposed school would be relocated from two other District schools further to the west of the project site: Encinal Elementary School and Laurel Elementary School. Strategically, the location of the proposed school would provide for a new elementary school in an unserved area of the District between Willow Road, the Bayshore Freeway (US 101), and Woodland Avenue.

Figures 2A, 2B, and 2C illustrate the three access, loading, and parking design schemes that are currently being analyzed by the District. In general, the proposed project would not significantly change vehicle traffic patterns to the site as Elliot Drive would remain as the primary and only access route for cars. In addition, pedestrian and bicycle access would remain from Elliot Drive and Oak Court.

Scheme 1 (Figure 2A) would provide for a separated parking lot and student loading area. The loading area could store up to 20 cars at one time (based on 22 feet per car). There would be a total of 41 parking spaces (39 spaces and 2 handicapped spaces). There would also be a one-way inbound gated access on Oak Court for school buses. The District has indicated that only one bus per day would serve the school (in the morning and afternoon), and an occasional bus for field trips.

Scheme 2 (Figure 2B) would provide for a separated parking lot for visitors and staff. Cars parked in the visitor parking would not be required to circulate through the loading area to exit the site. The loading area could store up to 31 cars at one time. There would be a total of 56 parking spaces (54 spaces and 2 handicapped spaces). There would also be a one-way inbound gated access on Oak Court for school buses.

Scheme 3 (Figure 2C) would provide for a separated loop for buses and cars coming from Elliot Drive. There would be no vehicle access from Oak Court. The loading area could store up to 32 cars at one time. There would be a total of 34 parking spaces (32 spaces and 2 handicapped spaces).



Not To Scale

Source: DLM



Source: DLM



Source: DLM

Trip Generation

Weekday daily and a.m. peak hour trip generation estimates for the proposed elementary school (360 students) and the relocated students from the existing elementary schools (Encinal and Laurel Elementary Schools) were developed using trip rates provided in the Institute of Transportation Engineers (ITE) *Trip Generation, 9th Edition*. Trip generation estimates for the existing GAIS were provided from the *Final Report – Traffic Study for the Proposed German American International School Expansion* prepared by TJKM Transportation Consultants in January 2012. The trip rates in the GAIS traffic study were developed based on trip generation studies of the existing operations at GAIS.

Current student demographic data for the students of Encinal and Laurel Elementary Schools was provided by the District. Grade 3 students from Laurel Elementary School, and Grades 4-5 students from Encinal Elementary School would be relocated to the proposed school. The street addresses of those students were mapped, and approximately 90 students from Laurel Elementary School and 197 students from Encinal Elementary School, for a total of 287 students, would be relocated to the O'Connor School Site. The student demographic data are provided in Attachment 2.

Summaries of the trip generation rates and resulting vehicle trips for the proposed project are presented in Table C.

Table C – Trip Generation Estimates

Land Use	Size/Units	Daily	Weekday AM Peak Hour		
			In	Out	Total
TRIP RATES					
Elementary School (ITE Code 520) ¹	per student	1.29	0.25	0.20	0.45
Private School (TJKM Study, 2012) ²	per student	2.92	0.43	0.36	0.79
TRIP GENERATION					
O'Connor Site ES - Grades 3-5	360 students	464	89	73	162
German-American School (private)	315 students	-920	-137	-112	-249
NET TRIP GENERATION		-456	-48	-39	-87
DIVERTED (RE-DISTRIBUTED) TRIPS					
Laurel Elementary School - Grade 3 ³	90 students	116	23	18	41
Encinal Elementary School - Grades 4-5 ³	197 students	254	49	40	89
TOTAL DIVERTED TRIPS		370	72	58	130

Notes:

¹ Trip rates based on *Trip Generation, 9th Edition*, Institute of Transportation Engineers (ITE), 2012.

² Trip rates based on *Final Report - Traffic Study for the Proposed German American International School Expansion*, TJKM Transportation Consultants, January 18, 2012.

³ Number of students in Grades 3 - 5 to be diverted to O'Connor Site Elementary School based on demographic data provided by the Menlo Park City School District, November 2013.

According to the table, the proposed project would generate approximately 464 daily trips and 162 a.m. peak hour trips (89 inbound and 73 outbound). The GAIS currently generates 920 daily trips and 249 a.m. peak hour trips (137 inbound and 112 outbound). Once the proposed project replaces the GAIS, there would be net 456 less daily trips and 87 less a.m. peak hour trips

generated by the proposed project. In addition, there would be 370 daily trips and 130 a.m. peak hour trips diverted from Laurel and Encinal Elementary Schools to the proposed project.

Trip Distribution and Assignment

Trip distribution percentages for the new trips generated by the proposed project, and the existing trips to/from Laurel and Encinal Elementary Schools were based on the student demographic data provided by the District. Trip distribution percentages for the GAIS were provided in the January 2012 TJKM traffic study. The trip assignments for each school were determined based on applying the trip distribution percentages to their respective trip generation. Adjustments were made to the trip assignments for those students who live relatively close to their school (i.e., within walking distance).

Figures 3 and 4 present the trip distribution and resulting trip assignment, respectively, for the proposed project. Figures 5 and 6 present the trip distribution and resulting trip assignment, respectively, for the GAIS. Trips from the GAIS would be removed from the study area with implementation of the proposed project. Figures 7 and 8 present the trip distribution and resulting trip assignment, respectively, for Encinal Elementary School. Figures 9 and 10 present the trip distribution and resulting trip assignment, respectively, for Laurel Elementary School. The trips from Encinal and Laurel Elementary Schools would be diverted to the proposed project. For purposes of the traffic analysis, those trips were removed from the study area, then added back as part of the trip assignment from the proposed project. Figure 11 provides the trip assignment of all schools combined.

Existing plus Project Traffic Analysis

Existing Traffic

As previously noted, the a.m. peak hour traffic counts were either collected in early November 2013 during a typical weekday, or were provided by the City from the May 2012 city-wide biannual traffic counts. Figure 12 illustrates the existing weekday a.m. peak hour traffic volumes. The existing traffic counts and field calculated peak hour factors (PHF) were input in the *Traffix* (version 8) LOS software to determine the existing levels of service (LOS). Table D provides the results of the Existing and Existing plus Project LOS analysis. Attachment 3 contains the LOS calculation sheets.

Based on the table, the following intersections are currently operating with unsatisfactory LOS (LOS D, E, or F):

1. Ravenswood Avenue/Middlefield Road (LOS E with 76.2 seconds of delay)
2. Ringwood Avenue/Bay Road (LOS D with 28.6 seconds of delay)
6. Willow Road/Chester Street (LOS D with 25.1 seconds of delay)
8. Willow Road/O'Keefe Street (LOS F with 77.7 seconds of delay)
11. Willow Road/Middlefield Road (LOS E with 66.4 seconds of delay)
23. University Avenue/Woodland Avenue (LOS D with 50.9 seconds of delay)

Existing plus Project Traffic

Each trip assignment for the proposed project, the GAIS (removed trips), Encinal Elementary School (diverted trips), and Laurel Elementary School (diverted trips) were added to the existing traffic volumes to derive the Existing plus Project condition. Figure 13 illustrates the Existing plus Project weekday a.m. peak hour traffic volumes. The Existing plus Project traffic volumes counts

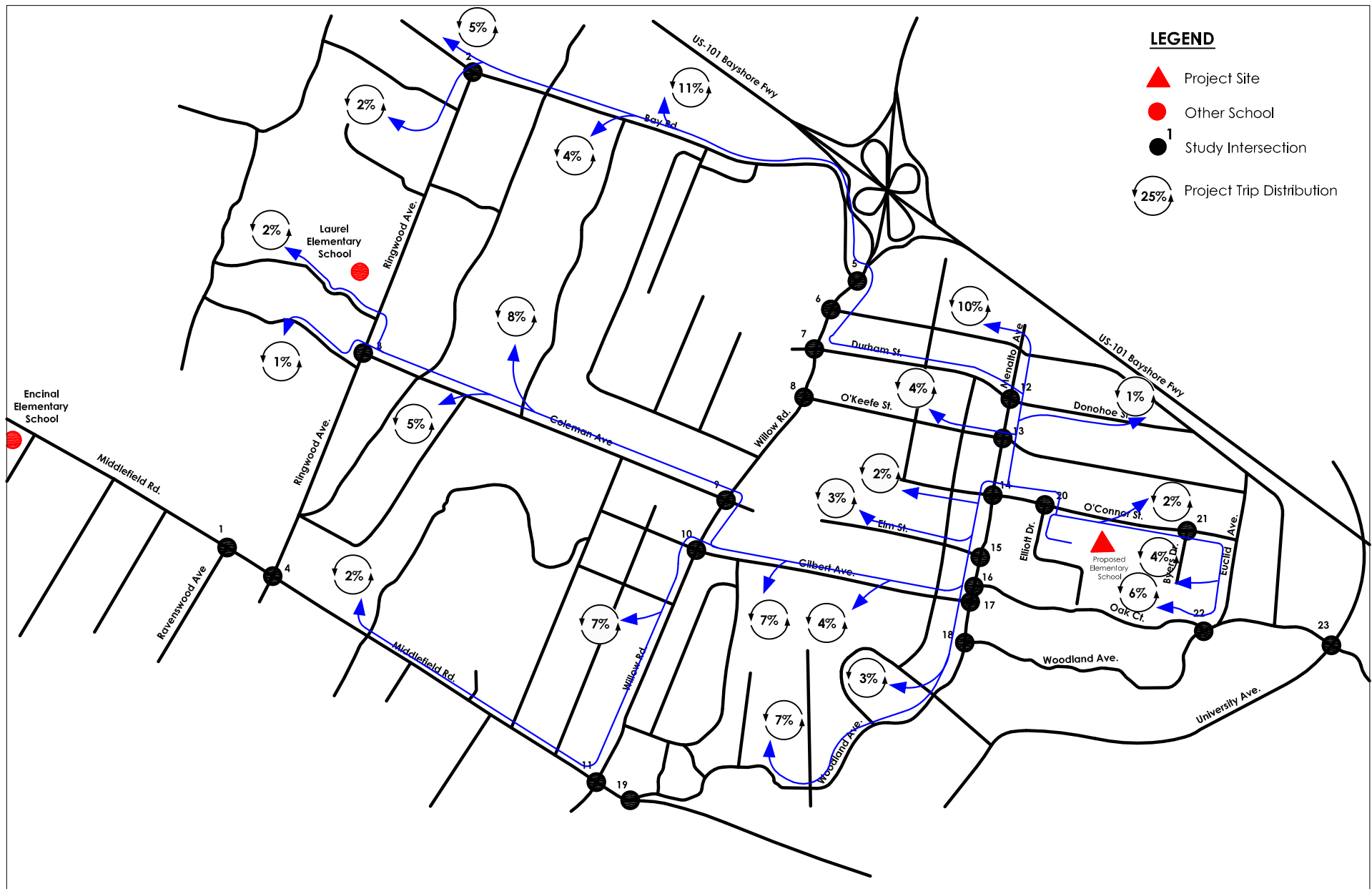


Figure 3
O'Connor Elementary School Site
Trip Distribution

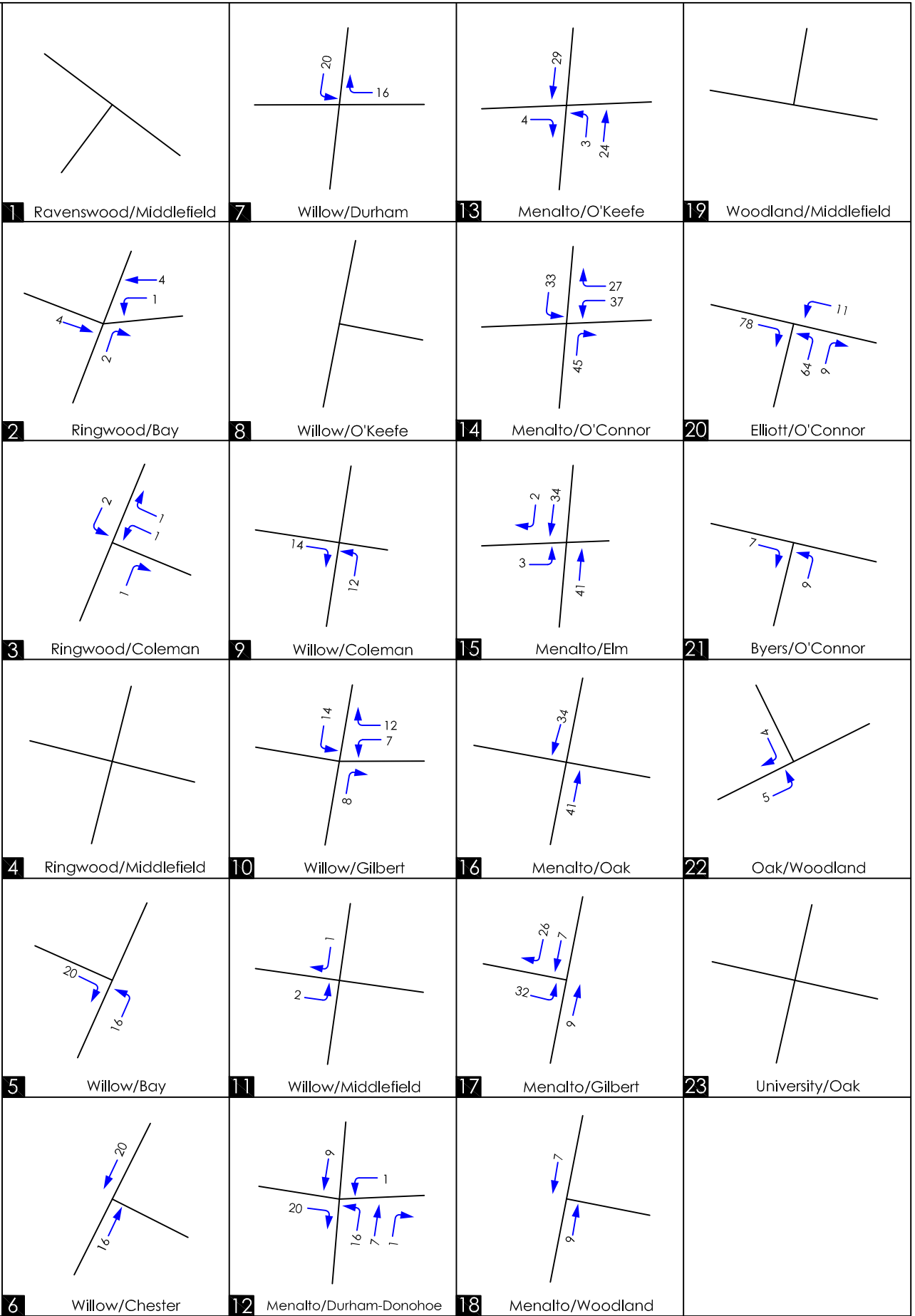
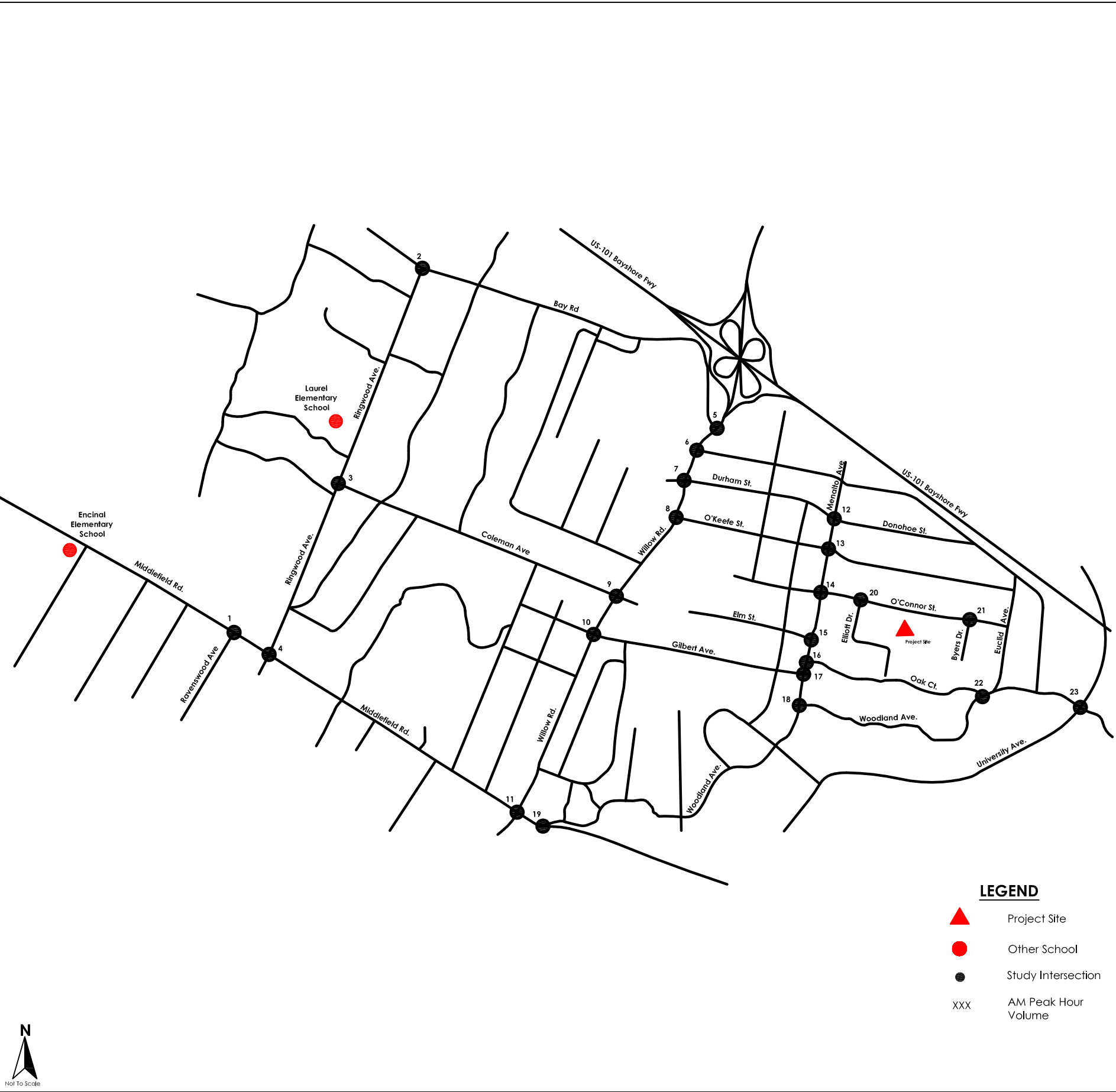


Figure 4
O'Connor Elementary School Site Trip Assignment

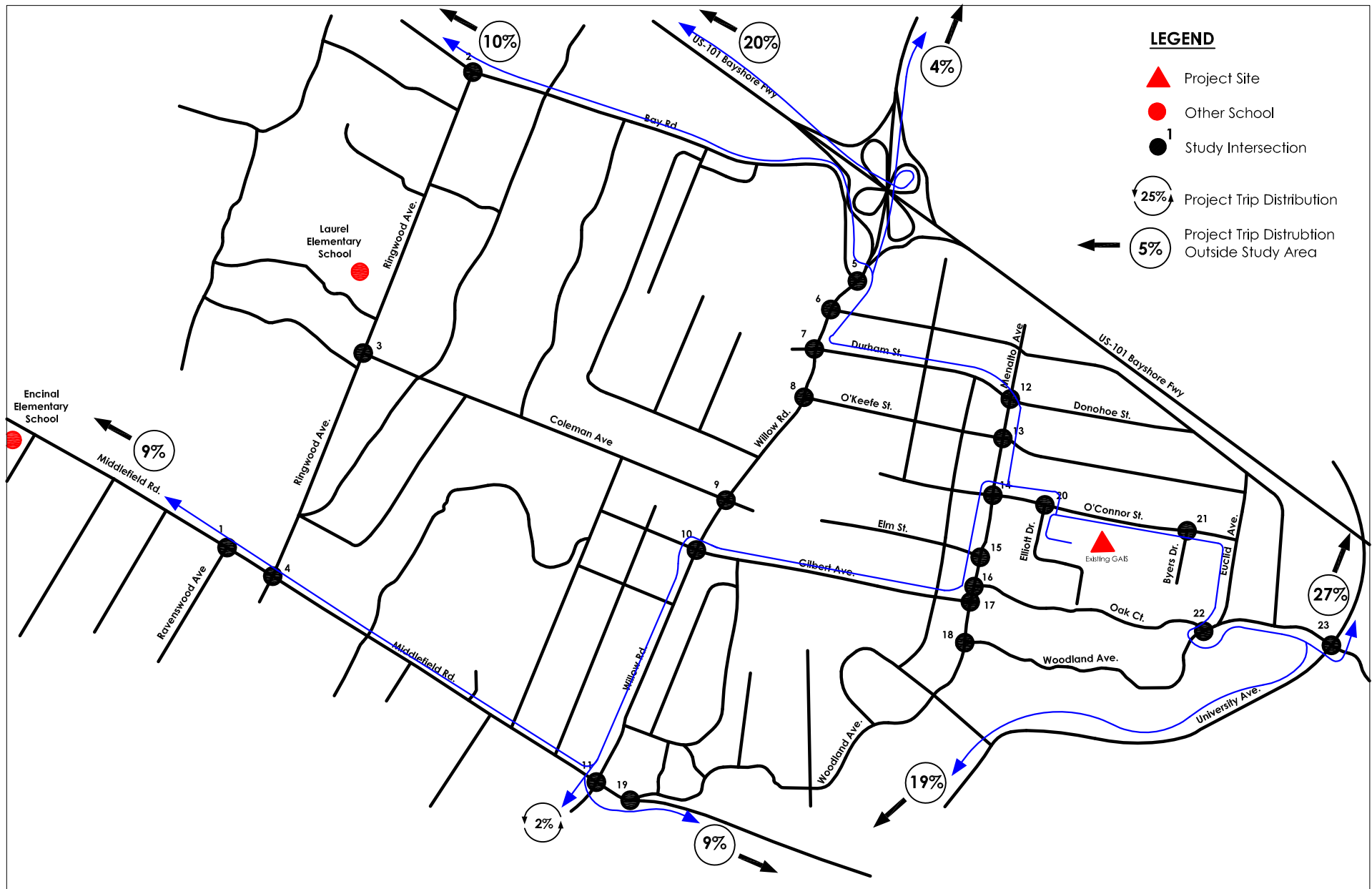


Figure 5
German-American International School
Trip Distribution

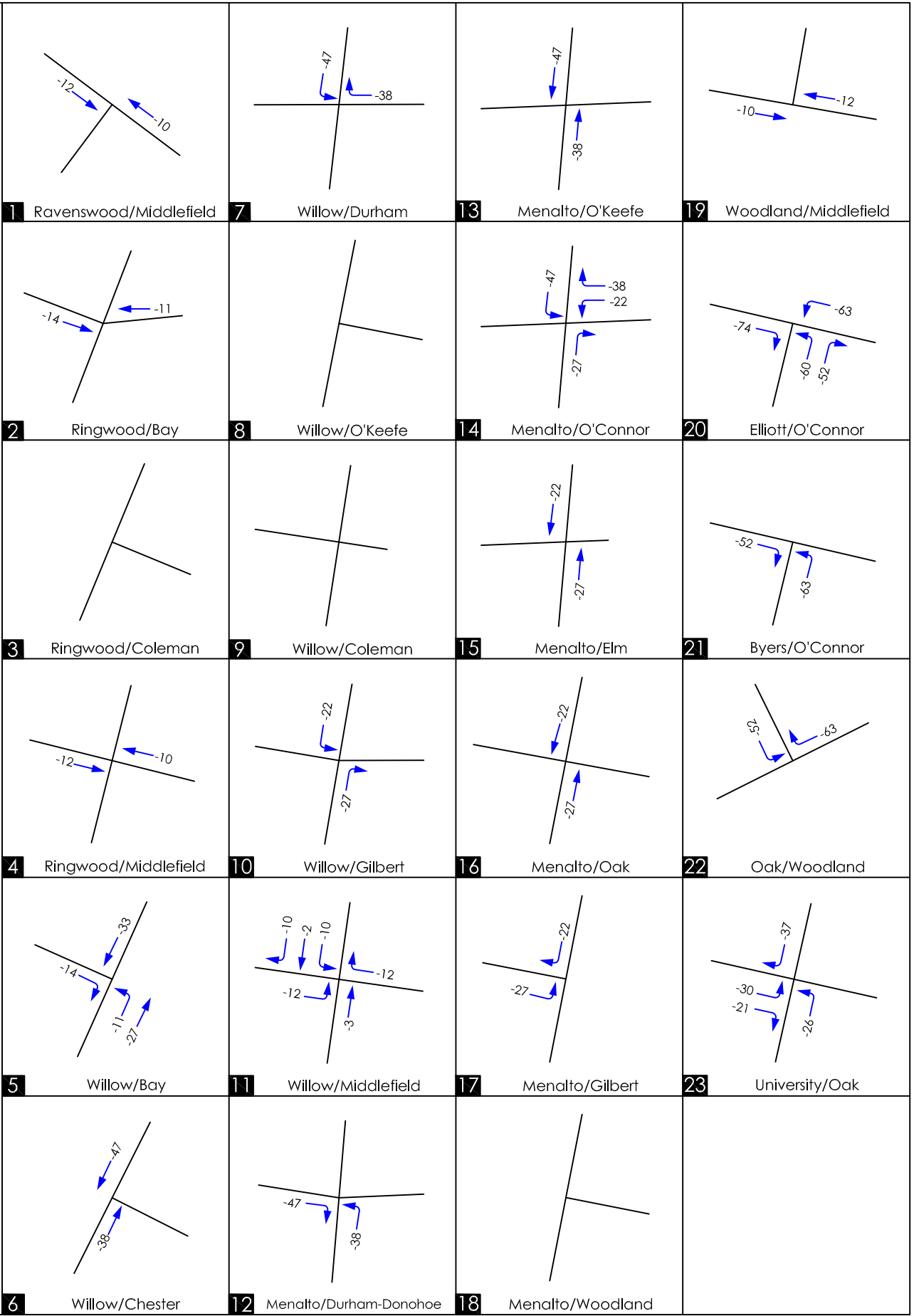
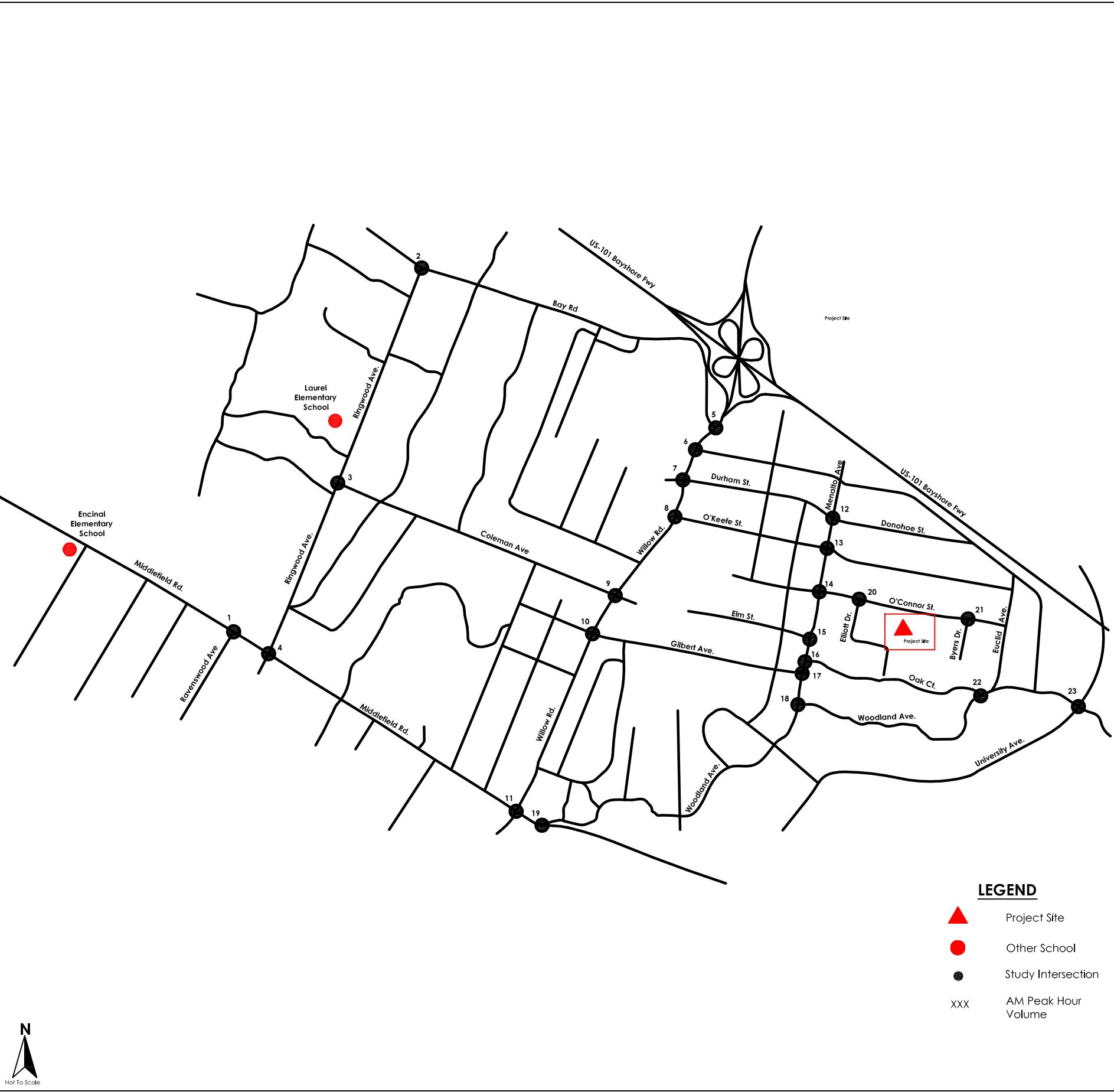


Figure 6
German-American International School Trip Assignment

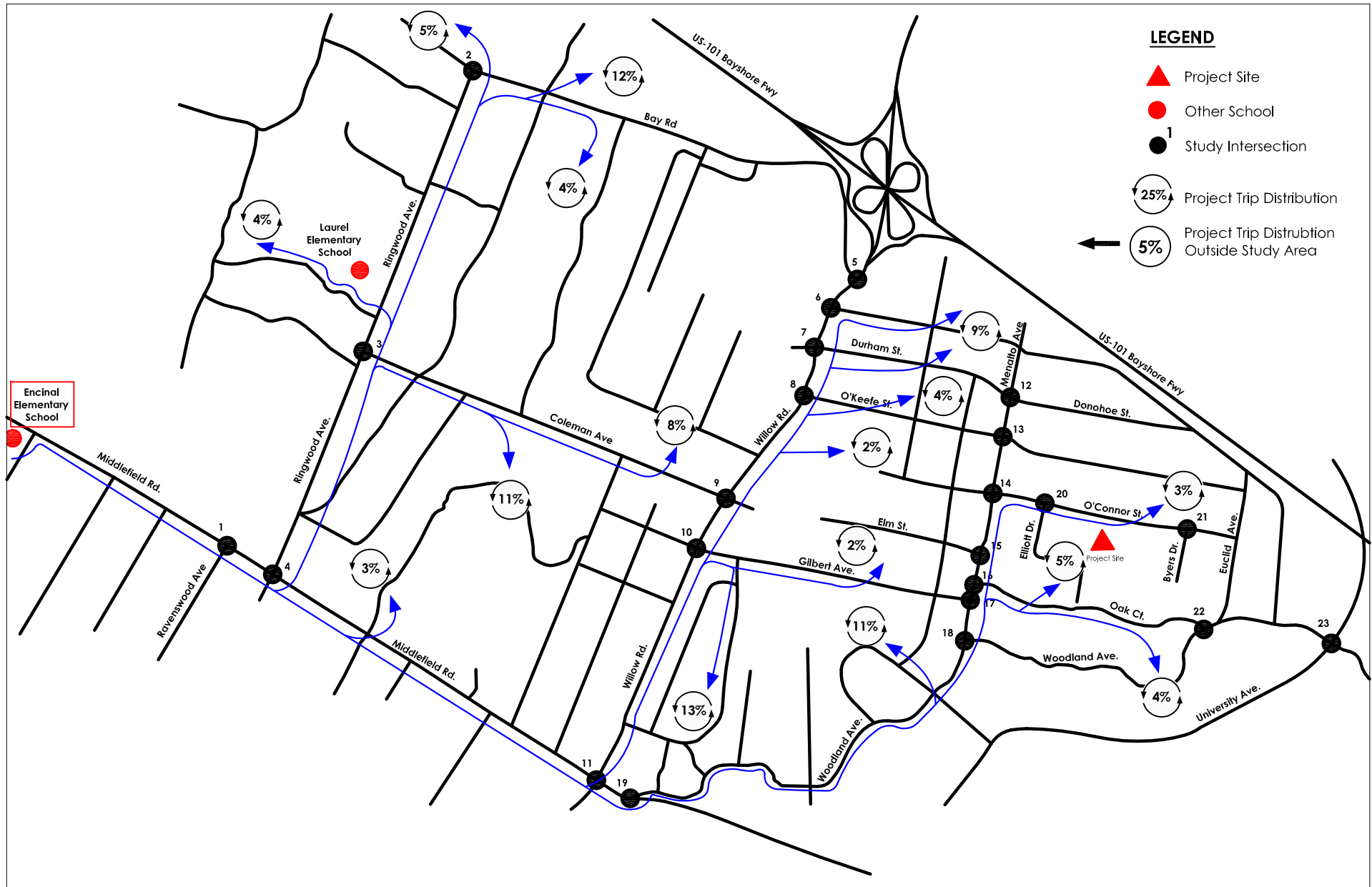


Figure 7
Encinal Elementary School
Trip Distribution

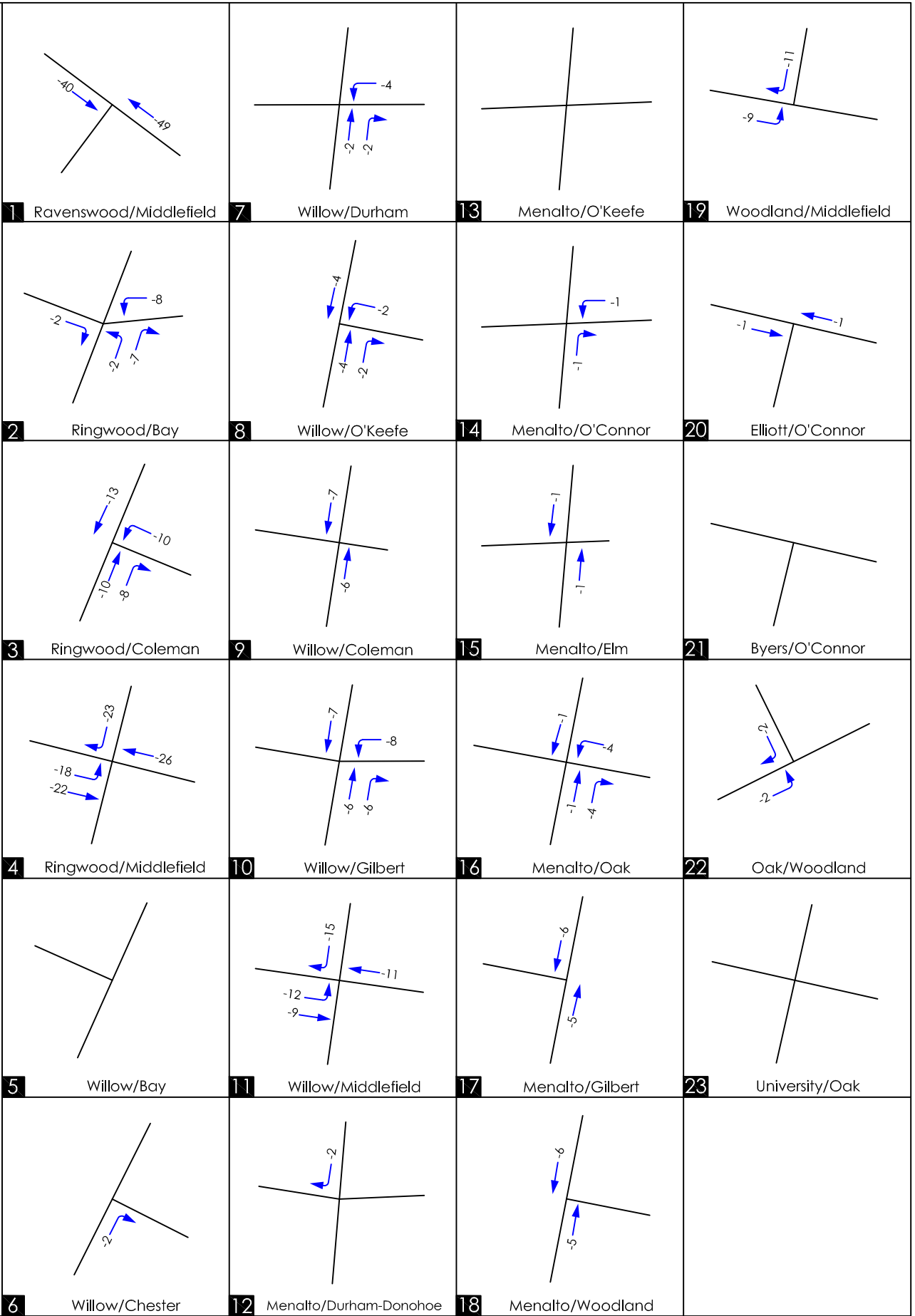
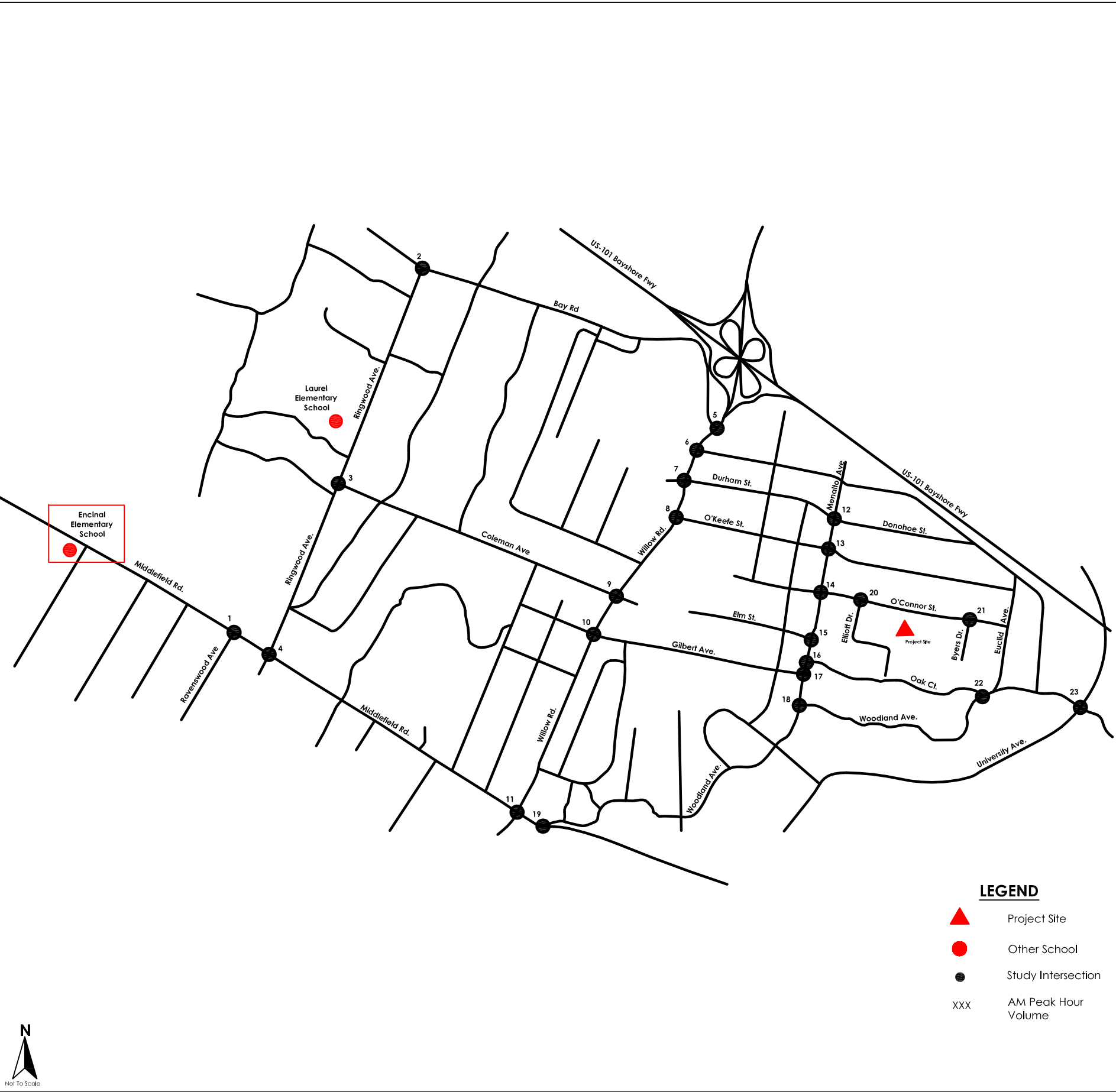


Figure 8
Encinal Elementary School Trip Assignment



Figure 9
Laurel Elementary School
Trip Distribution

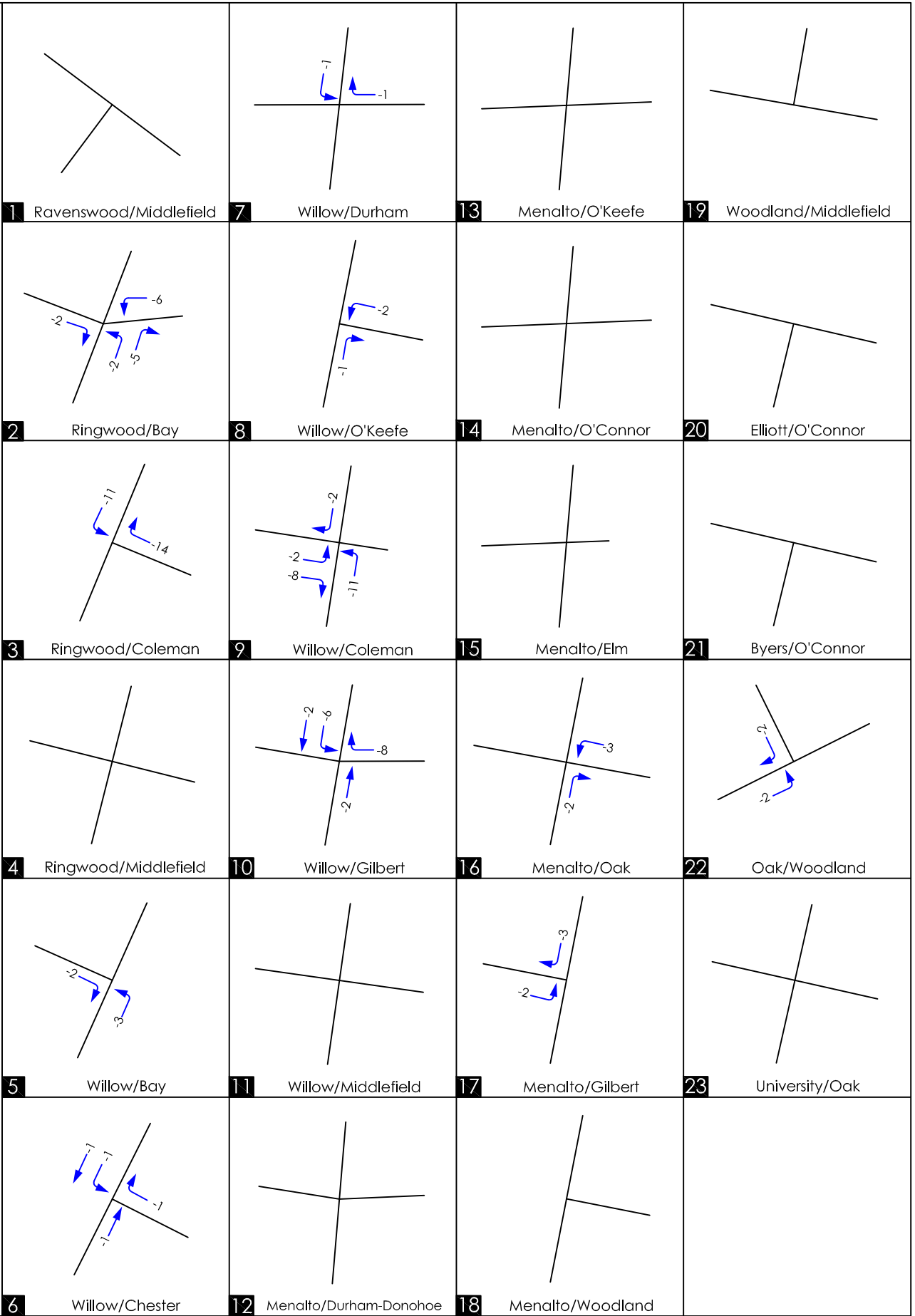
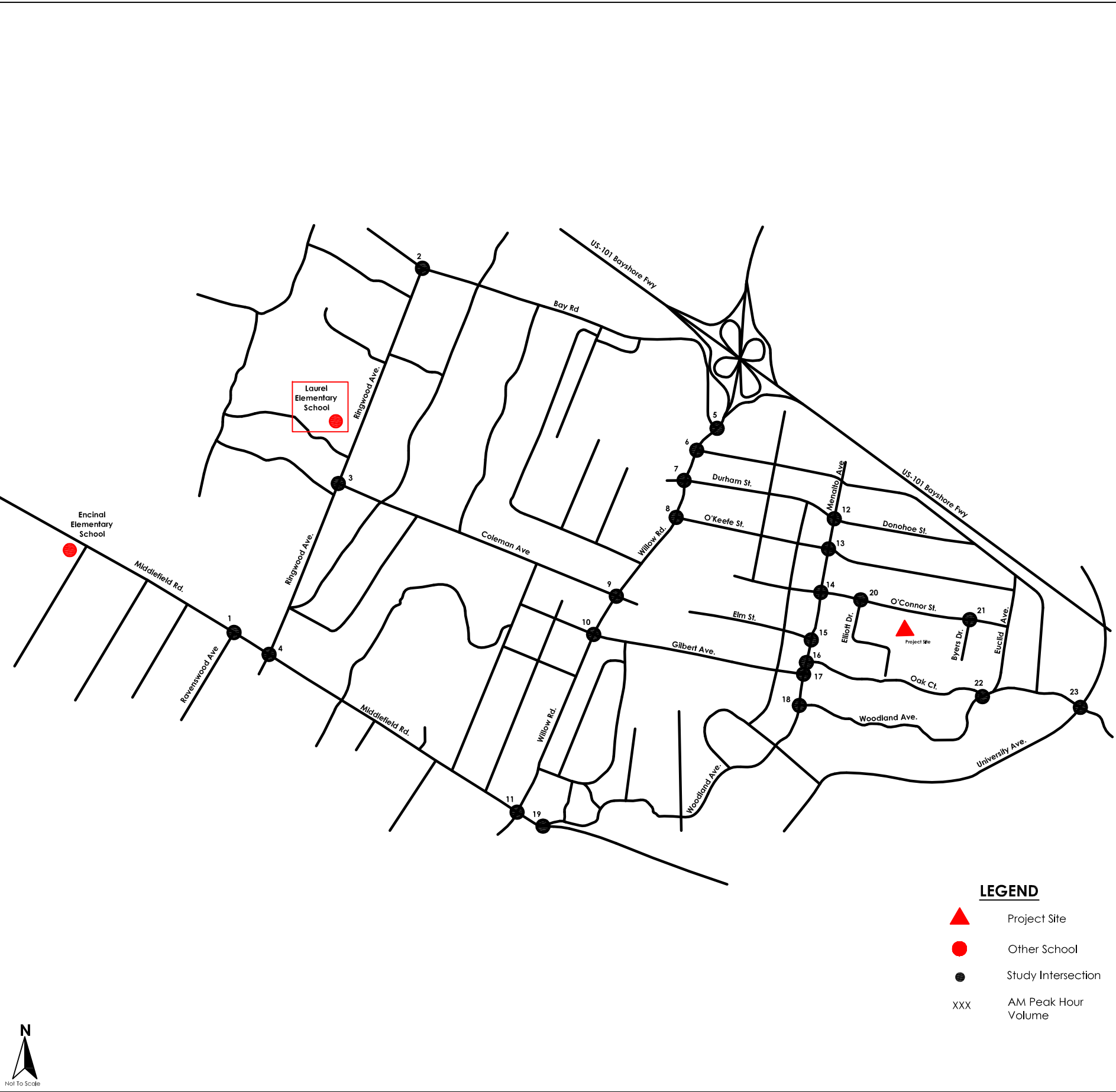


Figure 10
Laurel Elementary School Trip Assignment

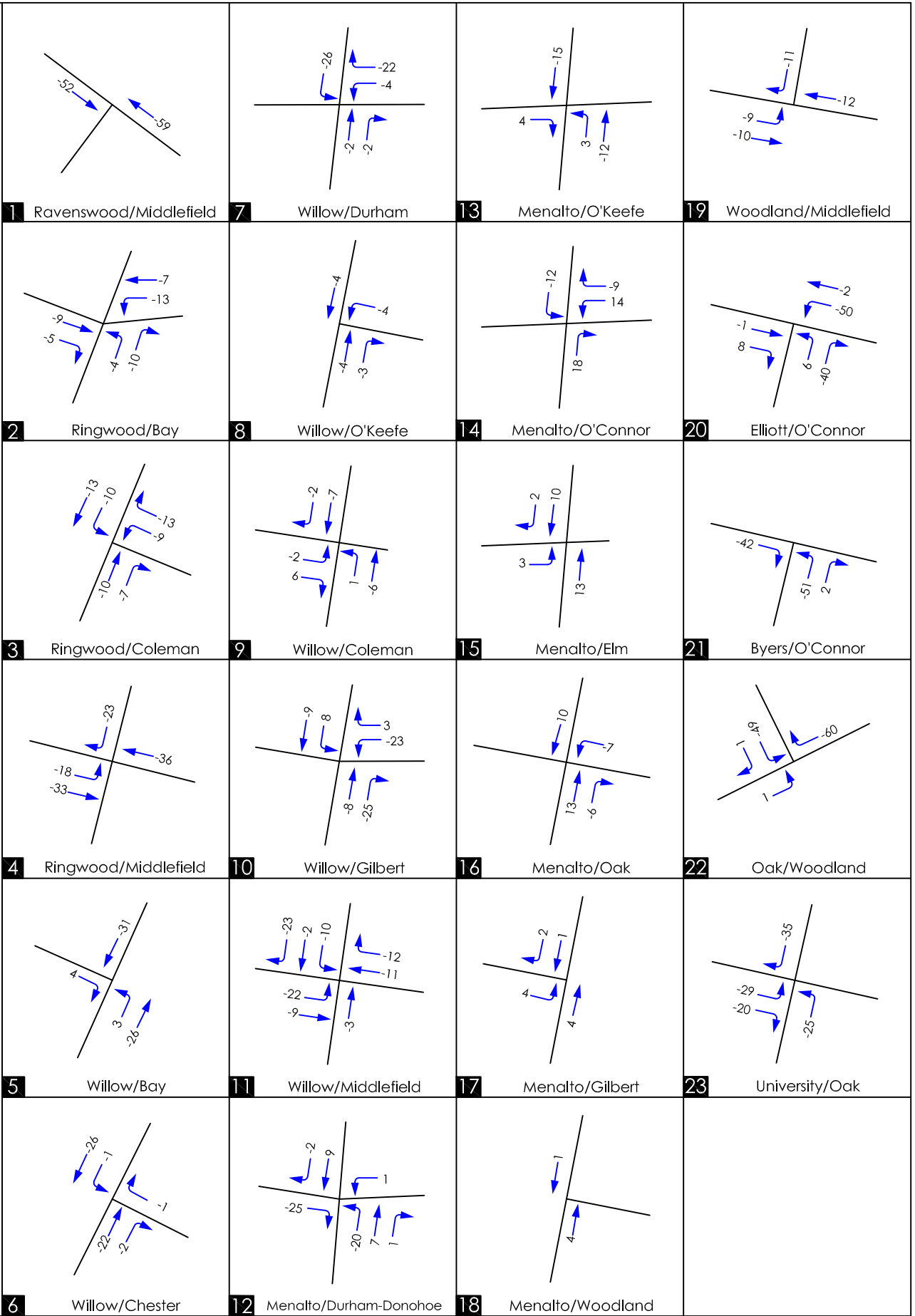
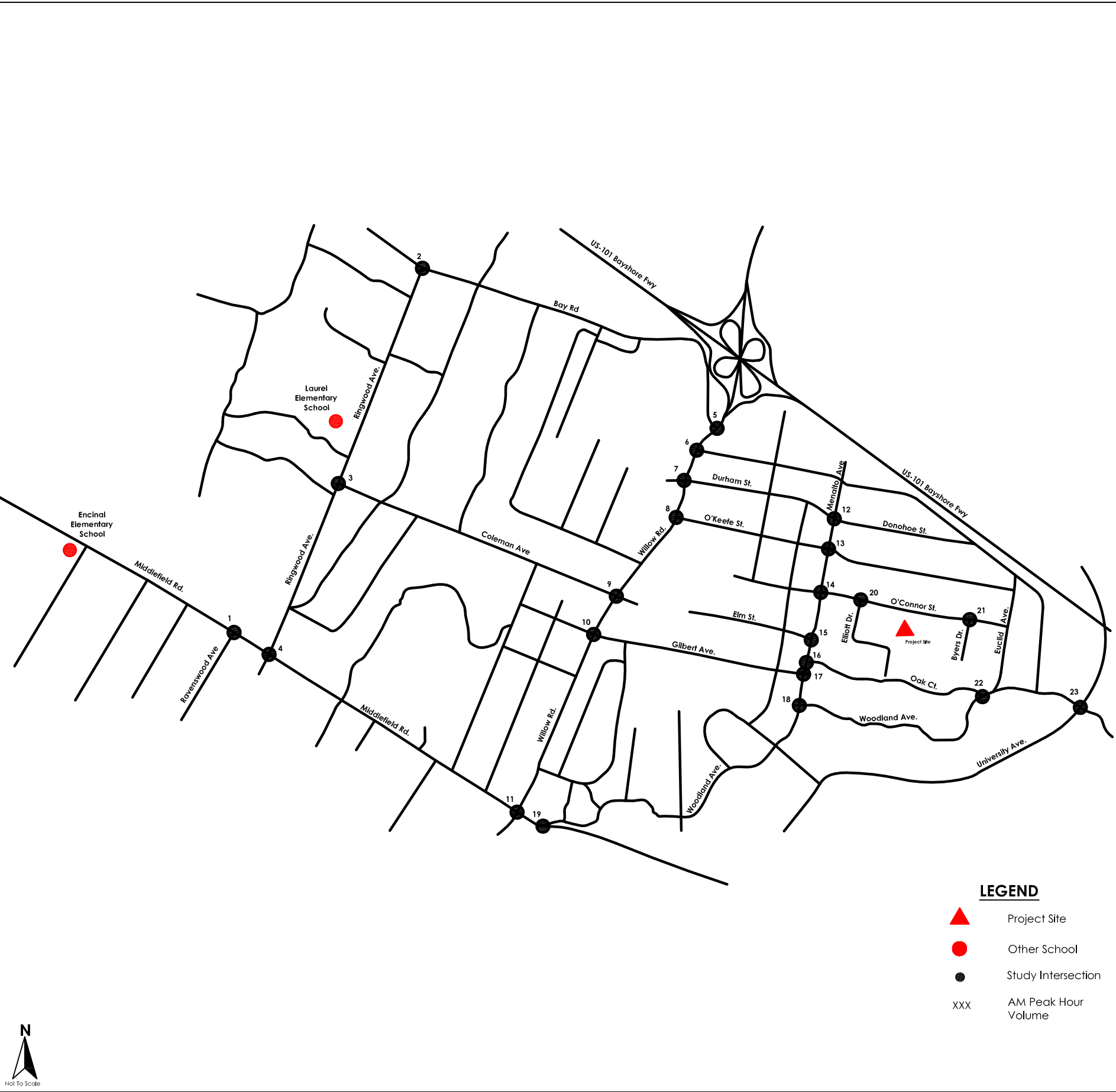


Figure 11
Combined Schools Trip Assignment

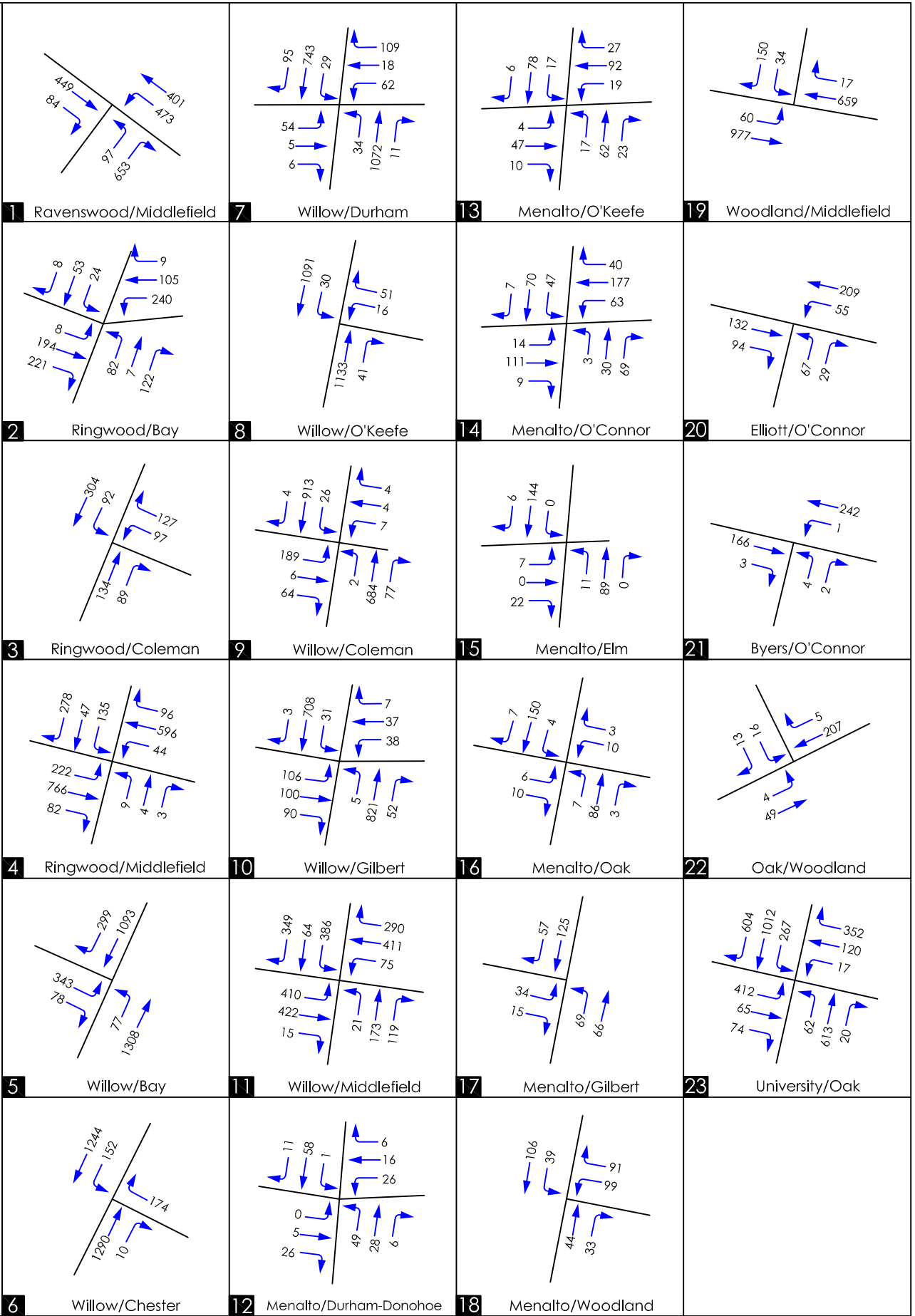
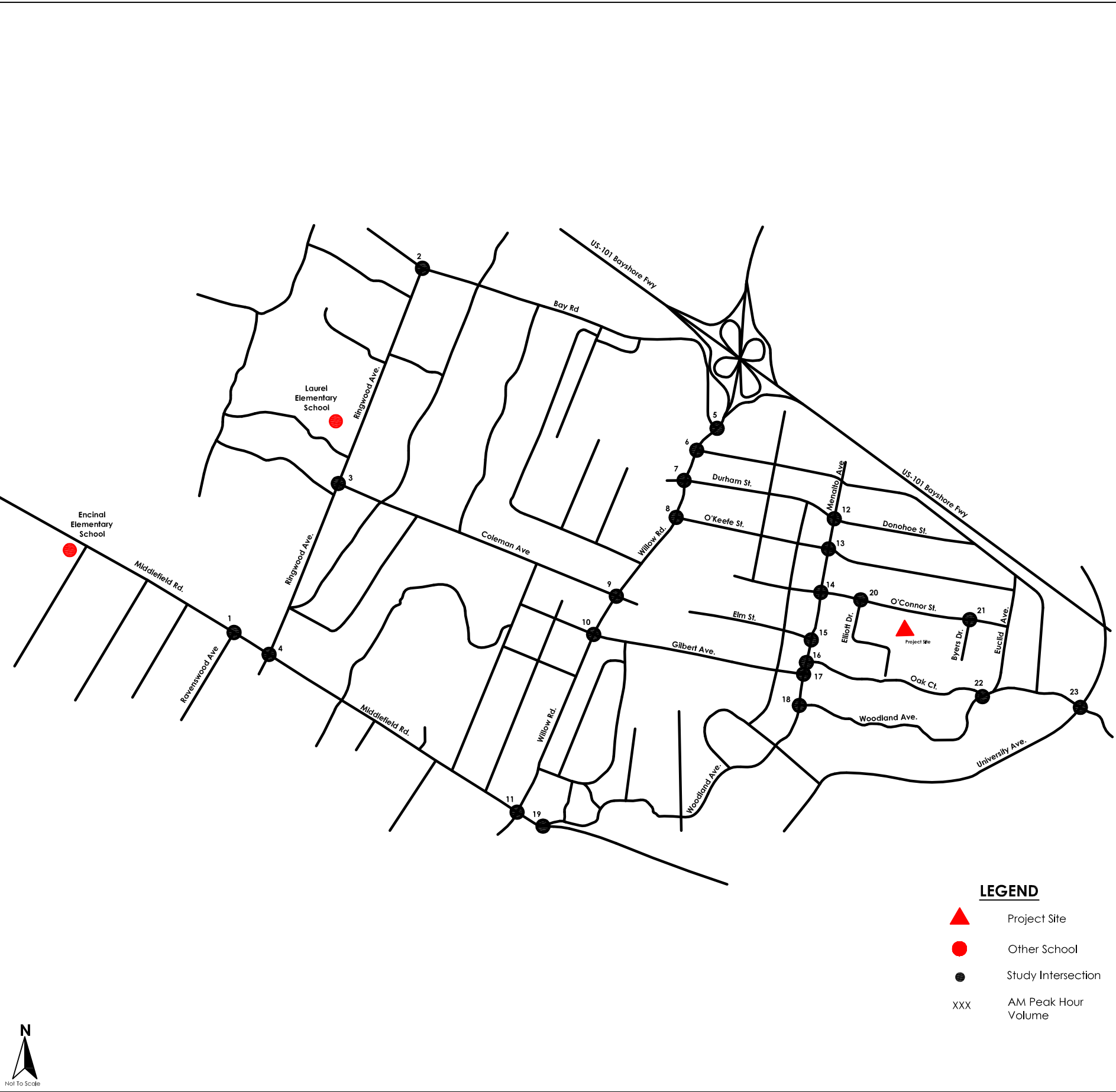


Figure 12
Existing Weekday AM Peak Hour Volumes

Table D – Existing plus Project Level of Service Summary

Intersection	Traffic Control	Weekday AM Peak Hour				Difference	Impact?
		Existing Condition		Existing + School			
		Delay	LOS	Delay	LOS		
1. Ravenswood Ave/Middlefield Rd ¹	signal	76.2	E	70.0	D	-6.2	no
2. Ringwood Ave/Bay Rd ²	all-way stop	28.6	D	23.1	C	-5.5	no
3. Ringwood Ave/Coleman Ave ²	1-way stop	19.1	C	15.9	B	-3.2	no
4. Ringwood Ave/Middlefield Rd ¹	signal	22.0	C	21.5	C	-0.5	no
5. Willow Rd/Bay Rd ¹	signal	15.5	B	15.7	B	0.2	no
6. Willow Rd/Chester St ²	1-way stop	25.1	D	24.1	C	-1.0	no
7. Willow Rd/Durham St ¹	signal	11.9	B	9.7	B	-2.2	no
8. Willow Rd/O'Keefe St ²	1-way stop	77.7	F	59.0	D	-18.7	no
9. Willow Rd/Coleman Ave ¹	signal	15.8	B	15.9	B	0.1	no
10. Willow Rd/Gilbert Ave ¹	signal	12.3	B	12.1	B	-0.2	no
11. Willow Rd/Middlefield Rd ¹	signal	66.4	E	52.1	C	-14.3	no
12. Menalto Ave/Durham-Donohoe St ²	2-way stop	10.9	B	10.6	B	-0.3	no
13. Menalto Ave/O'Keefe St ²	all-way stop	8.9	A	8.8	A	-0.1	no
14. Menalto Ave/Walnut-O'Connor St ²	all-way stop	12.2	B	12.1	B	-0.1	no
15. Menalto Ave/Elm St ²	all-way stop	7.9	A	8.1	A	0.2	no
16. Menalto Ave/Oak Ct ²	1-way stop	10.4	B	10.4	A	0.0	no
17. Menalto Ave/Gilbert Ave ²	all-way stop	8.5	A	8.6	A	0.1	no
18. Menalto Ave/Woodland Ave ²	all-way stop	8.8	A	8.9	A	0.1	no
19. Woodland Ave/Middlefield Rd ²	1-way stop	24.5	C	23.1	C	-1.4	no
20. Elliott Dr/O'Connor St ²	1-way stop	17.0	C	13.5	B	-3.5	no
21. Byers Dr/O'Connor St ²	1-way stop	11.2	B	9.3	A	-1.9	no
22. Woodland Ave/Oak Ct ²	1-way stop	10.7	B	9.7	A	-1.0	no
23. University Ave/Woodland Ave ²	signal	50.9	D	43.2	D	-7.7	no

Notes: Delay show in "seconds per vehicle" per the *Highway Capacity Manual* (HCM) Operations method.

BOLD values indicate unsatisfactory LOS D, E, or F conditions.

¹ Existing traffic counts provided by City of Menlo Park. Counts collected in mid-May 2012.

² Existing traffic counts collected in early-November 2013.

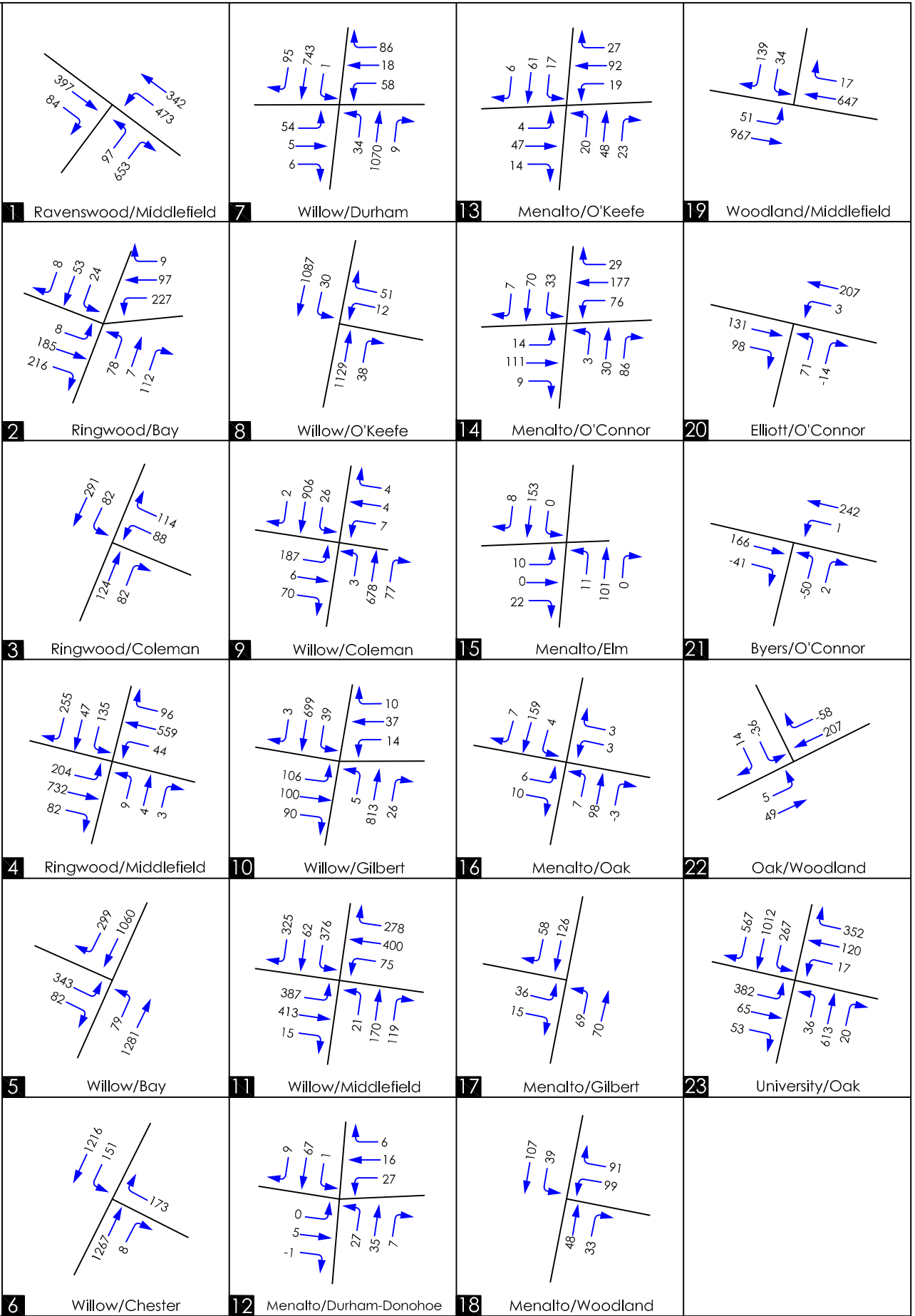
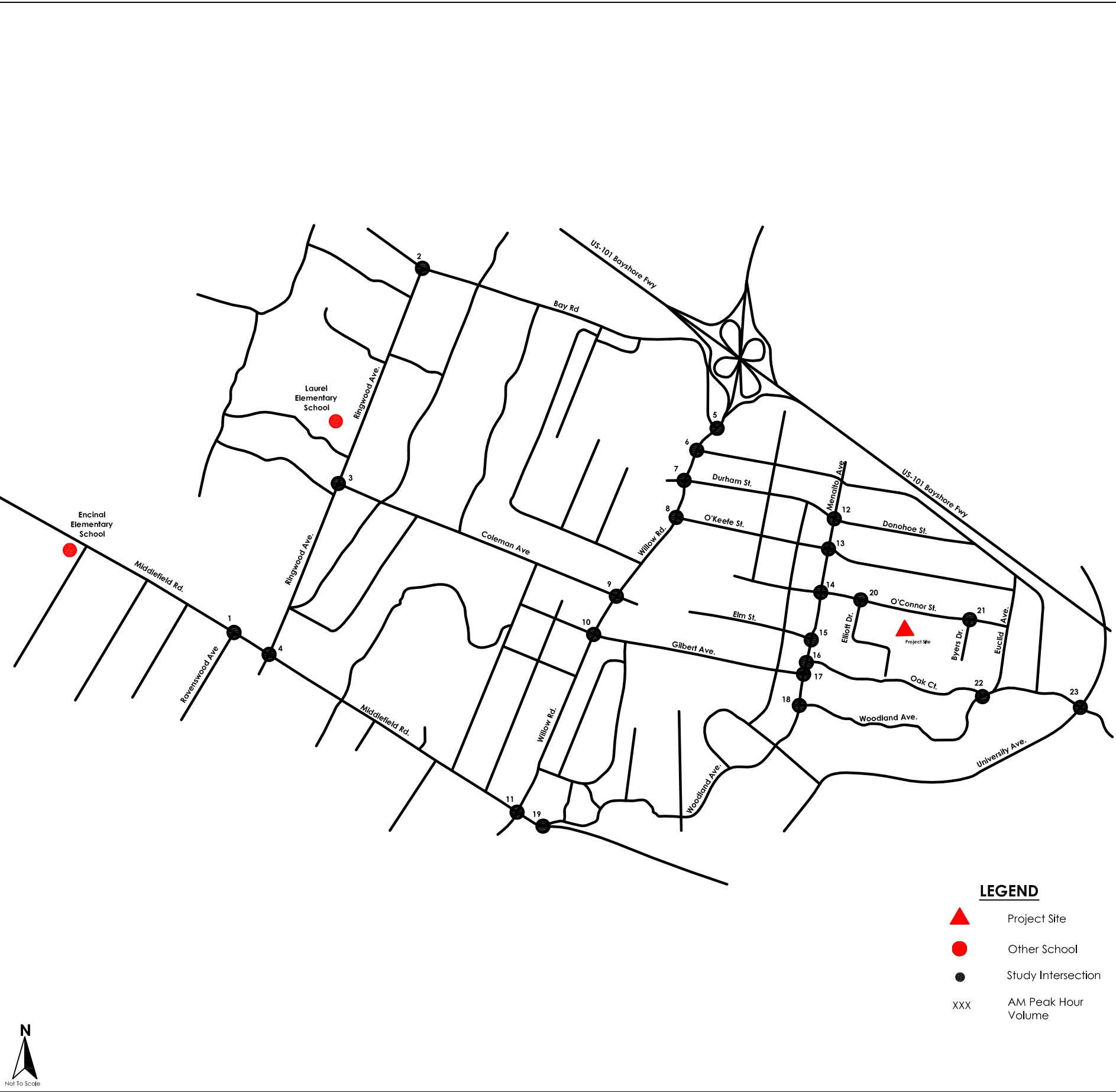


Figure 13
Existing plus Project Weekday AM Peak Hour Volumes

and existing field calculated peak hour factors (PHF) were input in the *Traffix* (version 8) LOS software to determine the existing levels of service (LOS). Table D also provides the results of the Existing plus Project LOS analysis. Attachment 3 contains the LOS calculation sheets.

Based on the table, the following intersections are forecast to continue to operate with unsatisfactory LOS (LOS D, E, or F) with implementation of the proposed project:

1. Ravenswood Avenue/Middlefield Road (was LOS E with 76.2 seconds of delay; improves to LOS D with 70.0 seconds of delay)
8. Willow Road/O'Keefe Street (was LOS F at 77.7 seconds of delay; improves to LOS D with 59.0 seconds of delay)
23. University Avenue/Woodland Avenue (was LOS D at 50.9 seconds of delay; improves to LOS D with 43.2 seconds of delay)

Although these intersections would continue to operate with unsatisfactory LOS, implementation of the proposed project would improve, or lessen, delays at those intersections.

With implementation of the proposed project, the following intersections would improve to satisfactory conditions (LOS A, B, or C).

2. Ringwood Avenue/Bay Road (was LOS D with 28.6 seconds of delay; improves to LOS C with 23.1 seconds of delay)
6. Willow Road/Chester Street (was LOS D with 25.1 seconds of delay; improves to LOS C with 24.1 seconds of delay)
11. Willow Road/Middlefield Road (was LOS E at 66.4 seconds of delay; improves to LOS C with 52.1 seconds of delay)

Conclusions

The proposed project is the replacement of an existing 315 student private school (pre-school to grade 8), the German American International School (GAIS), with a 360 student public school (grades 3-5) that would primarily serve the surrounding neighborhoods. A majority of the students of the proposed school would be relocated from two other District schools further to the west of the project site: Encinal Elementary School and Laurel Elementary School.

The proposed project would generate approximately 464 daily trips and 162 a.m. peak hour trips (89 inbound and 73 outbound). The GAIS currently generates 920 daily trips and 249 a.m. peak hour trips (137 inbound and 112 outbound). Once the proposed project replaces the GAIS, there would be net 456 less daily trips and 87 less a.m. peak hour trips generated by the proposed project. In addition, there would be 370 daily trips and 130 a.m. peak hour trips diverted from Laurel and Encinal Elementary Schools to the proposed project.

Based on the Existing plus Project traffic analysis, the following intersections are forecast to continue to operate with unsatisfactory LOS (LOS D, E, or F) with implementation of the proposed project:

1. Ravenswood Avenue/Middlefield Road (was LOS E with 76.2 seconds of delay; improves to LOS D with 70.0 seconds of delay)
8. Willow Road/O'Keefe Street (was LOS F at 77.7 seconds of delay; improves to LOS D with 59.0 seconds of delay)
23. University Avenue/Woodland Avenue (was LOS D at 50.9 seconds of delay; improves to LOS D with 43.2 seconds of delay)

Although these intersections would continue to operate with unsatisfactory LOS, implementation of the proposed project would improve, or lessen, delays at those intersections.

With implementation of the proposed project, the following intersections would improve to satisfactory conditions (LOS A, B, or C).

2. Ringwood Avenue/Bay Road (was LOS D with 28.6 seconds of delay; improves to LOS C with 23.1 seconds of delay)
6. Willow Road/Chester Street (was LOS D with 25.1 seconds of delay; improves to LOS C with 24.1 seconds of delay)
11. Willow Road/Middlefield Road (was LOS E at 66.4 seconds of delay; improves to LOS C with 52.1 seconds of delay)

Attachments: Attachment 1 – Raw Traffic Count Sheets
Attachment 2 – Student Demographic Data
Attachment 3 – LOS Calculation Sheets

cc: Benson Lee, Benson Lee, Consulting

ATTACHMENT 1

RAW TRAFFIC COUNT SHEETS

QUALITY COUNTS REPORT
=====

Intersection: Middlefield Ravenswood Ave
City/State: Menlo Park CA
QJobNo: 10756323
ClientID:
Date: 5/8/2012
Comments:

PEAK HOUR: 7:55 AM
PEAK HOUR: 8:55 AM
PEAK 15-M: 8:35 AM
PEAK 15-M: 8:50 AM
PHF: 0.94

Lane Configuration:

SIGNAL SB Lane1 SB Lane2 SB Lane3 SB Lane4 SB Lane5 SB Lane6 SB Lane7
TR
EB Lane7
EB Lane6
EB Lane5
EB Lane4
EB Lane3
EB Lane2 L
EB Lane1 R
SIGNAL
NB Lane7 NB Lane6 NB Lane5 NB Lane4 NB Lane3 NB Lane2 NB Lane1 SIGNAL
LT

SIGNAL

WBLane1
WBLane2
WBLane3
WBLane4
WBLane5
WBLane6
WBLane7

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
473	401	0	0	449	84	97	0	653	0	0	0	874	533	750	0	498	1103	0	556

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
5.3	3	0	0	4.5	8.3	4.1	0	2.1	0	0	0	4.2	5.1	2.4	0	3.2	3.1	0	5.8

PEAK-HOUR VOLUMES - PEDESTRIANS

North	South	East	West
0	59	37	6

PEAK-HOUR VOLUMES - BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
5	20	0	0	13	3	2	0	8	0	0	0

PEAK 15-MIN FLOWRATES

VehicleType	NBLeft	NBThru	NBRight	NBUTurn	NBRTOR	SBLeft	SBThru	SBRight	SBUTurn	SBRTOR	EBLeft	EBThru	EBRight	EBUTurn	EBRTOR	WBLeft	WBThru	WBRight	WBUTurn	WBRTOR	Total
All Vehicles	516	388	0	0	0	0	404	100	0	0	112	0	768	0	0	0	0	0	0	0	2288
Heavy Truc	36	12	0	0	0	0	24	12	0	0	4	0	20	0	0	0	0	0	0	0	108
Pedestrians	96	0	0	0	0	0	0	0	0	0	0	16	0	0	0	96	0	0	0	0	208
Bicycles	2	3	0	0	0	0	4	1	0	0	0	0	3	0	0	0	0	0	0	0	13

ALL-VEHICLE VOLUMES

Time Period	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Totz
7:00 AM	24	14	0	0	0	0	23	5	0	0	9	0	23	0	0	0	0	0	0	0	98	
7:05 AM	20	11	0	0	0	0	17	9	0	0	4	0	12	0	0	0	0	0	0	0	73	
7:10 AM	22	12	0	0	0	0	18	10	0	0	3	0	23	0	0	0	0	0	0	0	88	
7:15 AM	14	24	0	0	0	0	12	4	0	0	2	0	15	0	0	0	0	0	0	0	71	
7:20 AM	35	19	0	0	0	0	18	8	0	0	9	0	38	0	0	0	0	0	0	0	127	
7:25 AM	34	35	0	0	0	0	28	7	0	0	3	0	33	0	0	0	0	0	0	0	140	
7:30 AM	29	36	0	0	0	0	14	7	0	0	7	0	40	0	0	0	0	0	0	0	133	
7:35 AM	53	36	0	0	0	0	18	5	0	0	5	0	22	0	0	0	0	0	0	0	139	
7:40 AM	32	52	0	0	0	0	32	12	0	0	7	0	55	0	0	0	0	0	0	0	190	
7:45 AM	39	39	0	0	0	0	37	11	0	0	10	0	38	0	0	0	0	0	0	0	174	
7:50 AM	46	45	0	0	0	0	28	4	0	0	6	0	46	0	0	0	0	0	0	0	175	
7:55 AM	33	54	0	0	0	0	44	8	0	0	8	0	49	0	0	0	0	0	0	0	196	1604
8:00 AM	27	32	0	0	0	0	39	4	0	0	6	0	47	0	0	0	0	0	0	0	155	1661
8:05 AM	38	34	0	0	0	0	32	7	0	0	8	0	51	0	0	0	0	0	0	0	170	1758
8:10 AM	57	25	0	0	0	0	38	9	0	0	7	0	57	0	0	0	0	0	0	0	193	1863
8:15 AM	38	36	0	1	0	0	35	3	0	0	12	0	54	0	0	0	0	0	0	0	179	1971
8:20 AM	42	25	0	0	0	0	38	8	0	0	7	0	49	0	0	0	0	0	0	0	169	2013
8:25 AM	31	38	0	0	0	0	41	4	0	0	5	0	45	0	0	0	0	0	0	0	164	2037
8:30 AM	37	25	0	0	0	0	28	7	0	0	8	0	73	0	0	0	0	0	0	0	178	2082
8:35 AM	42	30	0	0	0	0	33	8	0	0	13	0	69	0	0	0	0	0	0	0	195	2138
8:40 AM	33	34	0	0	0	0	33	7	0	0	13	0	63	0	0	0	0	0	0	0	183	2131
8:45 AM	54	33	0	0	0	0	35	10	0	0	2	0	60	0	0	0	0	0	0	0	194	2151
8:50 AM	40	35	0	0	0	0	53	9	0	0	8	0	36	0	0	0	0	0	0	0	181	2157
8:55 AM	44	33	0	0	0	0	43	7	0	0	5	0	56	0	0	0	0	0	0	0	188	2149

HEAVY-VEHICLE VOLUMES

Time Period	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	2	0	0	0	0	0	2	0	0	0	0	0	4
7:05 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:10 AM	1	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	1	1	0	0	0	0	0	0	0	0	0	0	2
7:20 AM	2	1	0	0	0	2	1	0	0	0	0	0	6
7:25 AM	1	1	0	0	0	0	1	0	1	0	0	0	4
7:30 AM	3	3	0	0	3	1	0	0	2	0	0	0	12
7:35 AM	4	0	0	0	1	0	0	0	0	0	0	0	5
7:40 AM	1	0	0	0	2	0	2	0	1	0	0	0	6
7:45 AM	0	2	0	0	0	4	1	0	1	0	0	0	8
7:50 AM	2	2	0	0	1	0	0	0	1	0	0	0	6
7:55 AM	1	1	0	0	1	1	1	0	1	0	0	0	6
8:00 AM	1	1	0	0	1	1	2	0	3	0	0	0	9
8:05 AM	2	0	0	0	1	0	0	0	2	0	0	0	5
8:10 AM	1	1	0	0	1	0	0	0	2	0	0	0	5
8:15 AM	2	2	0	0	1	0	0	0	1	0	0	0	6
8:20 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
8:25 AM	1	3	0	0	4	0	0	0	0	0	0	0	8
8:30 AM	7	0	0	0	3	2	0	0	0	0	0	0	12
8:35 AM	3	0	0	0	2	0	1	0	1	0	0	0	7
8:40 AM	3	2	0	0	2	1	0	0	1	0	0	0	9
8:45 AM	3	1	0	0	2	2	0	0	3	0	0	0	11
8:50 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:55 AM	4	2	0	0	1	0	0	0	4	0	0	0	11

QUALITY COUNTS REPORT
=====

Intersection: Middlefield Ravenswood Ave
City/State: Menlo Park CA
QJobNo: 10756323
ClientID:
Date: 5/8/2012
Comments:

PEAK HOUR: 7:55 AM
PEAK HOUR: 8:55 AM
PEAK 15-M: 8:35 AM
PEAK 15-M: 8:50 AM
PHF: 0.94

Lane Configuration:

SIGNAL SB Lane1 SB Lane2 SB Lane3 SB Lane4 SB Lane5 SB Lane6 SB Lane7
TR
EB Lane7
EB Lane6
EB Lane5
EB Lane4
EB Lane3
EB Lane2 L
EB Lane1 R
SIGNAL
LT
NB Lane7 NB Lane6 NB Lane5 NB Lane4 NB Lane3 NB Lane2 NB Lane1 SIGNAL

SIGNAL
WBLane1
WBLane2
WBLane3
WBLane4
WBLane5
WBLane6
WBLane7

PEDESTRIAN VOLUMES

Time Period	North	South	East	West	Total
7:00 AM	0	1	0	0	1
7:05 AM	0	0	0	0	0
7:10 AM	0	0	1	0	1
7:15 AM	0	1	0	0	1
7:20 AM	0	2	1	0	3
7:25 AM	0	4	0	2	6
7:30 AM	0	2	0	0	2
7:35 AM	0	3	0	0	3
7:40 AM	0	7	0	1	8
7:45 AM	0	8	0	0	8
7:50 AM	0	1	0	1	2
7:55 AM	0	1	0	0	1
8:00 AM	0	3	0	0	3
8:05 AM	0	2	0	0	2
8:10 AM	0	1	0	0	1
8:15 AM	0	4	0	1	5
8:20 AM	0	4	2	0	6
8:25 AM	0	6	5	0	11
8:30 AM	0	13	6	1	20
8:35 AM	0	10	11	0	21
8:40 AM	0	9	9	0	18
8:45 AM	0	5	4	4	13
8:50 AM	0	1	0	0	1
8:55 AM	0	0	0	0	0

BICYCLE VOLUMES

Time Period	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
7:05 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
7:10 AM	0	2	0	0	0	0	0	0	1	0	1	0	4
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:20 AM	0	2	0	0	1	0	0	0	1	0	0	0	4
7:25 AM	0	0	0	0	0	0	0	1	1	0	0	0	2
7:30 AM	1	1	0	0	2	0	0	0	1	0	0	0	5
7:35 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:40 AM	0	3	0	0	3	0	0	0	0	0	1	0	7
7:45 AM	0	4	0	0	0	0	0	0	0	0	0	0	4
7:50 AM	0	0	0	0	1	0	1	0	0	0	0	0	2
7:55 AM	0	5	0	0	1	0	0	0	1	0	0	0	7
8:00 AM	1	2	0	0	2	0	0	0	1	0	0	0	6
8:05 AM	0	3	0	0	0	1	1	0	0	0	0	0	5
8:10 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
8:15 AM	0	1	0	0	0	1	1	0	1	0	0	0	4
8:20 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
8:25 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:30 AM	0	1	0	0	0	0	0	0	2	0	0	0	3
8:35 AM	1	1	0	0	0	0	0	0	1	0	0	0	3
8:40 AM	1	2	0	0	0	1	0	0	2	0	0	0	6
8:45 AM	0	0	0	0	4	0	0	0	0	0	0	0	4
8:50 AM	2	1	0	0	1	0	0	0	0	0	0	0	4
8:55 AM	0	0	0	0	1	0	0	0	2	0	0	0	3

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of Menlo Park
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 13-7650-001 Ringwood Avenue-Sonoma Avenue-Bay Road
Site Code : 00000000
Start Date : 11/6/2013
Page No : 1

Groups Printed- Unshifted

	Ringwood Avenue Southbound					Bay Road Westbound					Ringwood Avenue Northbound					Bay Road Eastbound					Sonoma Avenue Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
07:00	0	2	1	0	3	44	62	0	0	106	8	1	1	15	25	0	1	21	17	39	0	7	0	0	7	180
07:15	3	2	1	0	6	63	50	0	0	113	18	0	3	18	39	0	0	33	24	57	0	3	3	0	6	221
07:30	2	6	1	0	9	55	40	0	1	96	12	0	0	19	31	1	2	47	55	105	0	5	5	1	11	252
07:45	2	4	2	0	8	77	30	3	2	112	19	0	0	29	48	1	0	44	67	112	0	5	8	0	13	293
Total	7	14	5	0	26	239	182	3	3	427	57	1	4	81	143	2	3	145	163	313	0	20	16	1	37	946
08:00	3	6	1	0	10	62	20	1	0	83	16	2	3	38	59	1	1	48	56	106	0	3	11	3	17	275
08:15	1	2	0	0	3	46	15	1	1	63	29	4	4	36	73	2	0	55	43	100	0	3	11	0	14	253
08:30	1	3	1	0	5	46	16	0	1	63	27	2	1	40	70	0	2	46	48	96	0	2	6	2	10	244
08:45	0	2	0	0	2	59	19	1	1	80	21	0	1	36	58	1	0	49	62	112	0	2	3	1	6	258
Total	5	13	2	0	20	213	70	3	3	289	93	8	9	150	260	4	3	198	209	414	0	10	31	6	47	1030
Grand Total	12	27	7	0	46	452	252	6	6	716	150	9	13	231	403	6	6	343	372	727	0	30	47	7	84	1976
Apprch %	26.1	58.7	15.2	0		63.1	35.2	0.8	0.8		37.2	2.2	3.2	57.3		0.8	0.8	47.2	51.2		0	35.7	56	8.3		
Total %	0.6	1.4	0.4	0	2.3	22.9	12.8	0.3	0.3	36.2	7.6	0.5	0.7	11.7	20.4	0.3	0.3	17.4	18.8	36.8	0	1.5	2.4	0.4	4.3	

	Ringwood Avenue Southbound					Bay Road Westbound					Ringwood Avenue Northbound					Bay Road Eastbound					Sonoma Avenue Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:30																										
07:30	2	6	1	0	9	55	40	0	1	96	12	0	0	19	31	1	2	47	55	105	0	5	5	1	11	252
07:45	2	4	2	0	8	77	30	3	2	112	19	0	0	29	48	1	0	44	67	112	0	5	8	0	13	293
08:00	3	6	1	0	10	62	20	1	0	83	16	2	3	38	59	1	1	48	56	106	0	3	11	3	17	275
08:15	1	2	0	0	3	46	15	1	1	63	29	4	4	36	73	2	0	55	43	100	0	3	11	0	14	253
Total Volume	8	18	4	0	30	240	105	5	4	354	76	6	7	122	211	5	3	194	221	423	0	16	35	4	55	1073
% App. Total	26.7	60	13.3	0		67.8	29.7	1.4	1.1		36	2.8	3.3	57.8		1.2	0.7	45.9	52.2		0	29.1	63.6	7.3		
PHF	.667	.750	.500	.000	.750	.779	.656	.417	.500	.790	.655	.375	.438	.803	.723	.625	.375	.882	.825	.944	.000	.800	.795	.333	.809	.916

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

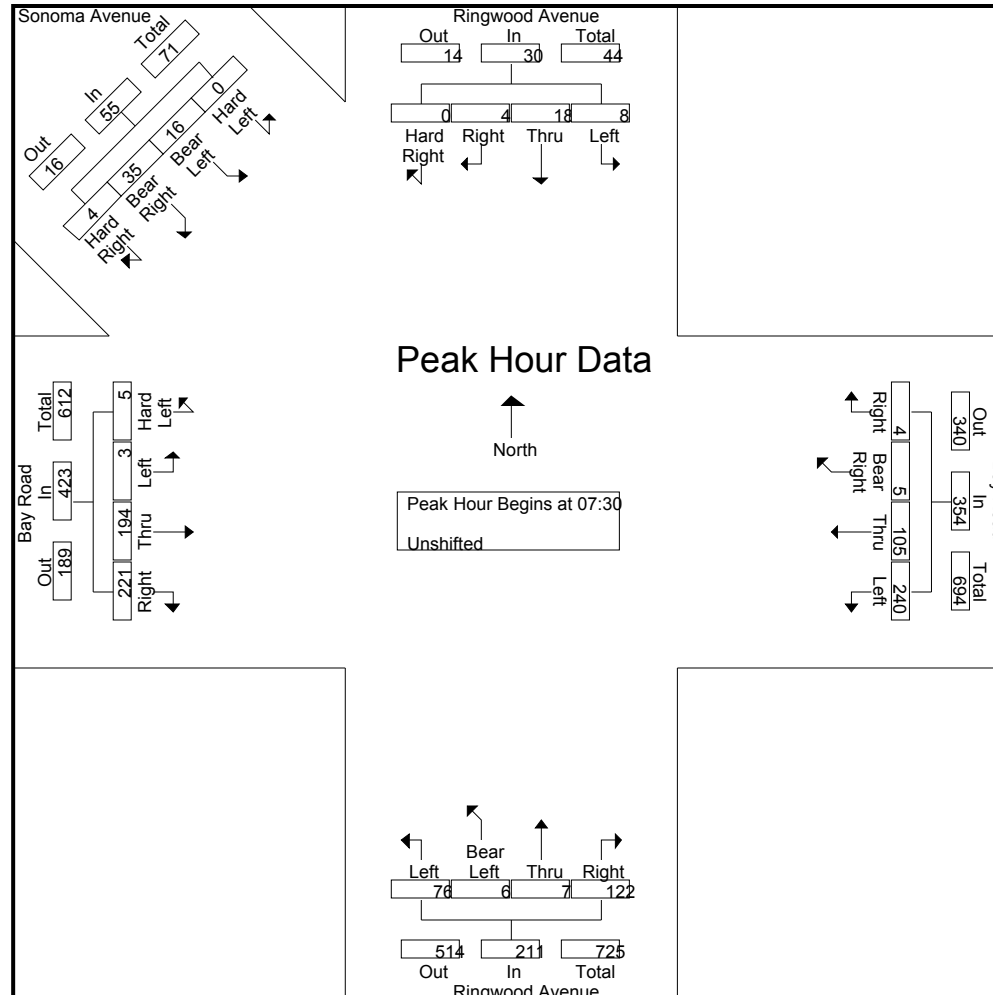
City of Menlo Park
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 13-7650-001 Ringwood Avenue-Sonoma Avenue-Bay Road

Site Code : 00000000

Start Date : 11/6/2013

Page No : 2



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of Menlo Park
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 13-7650-001 Ringwood Avenue-Sonoma Avenue-Bay Road
Site Code : 00000000
Start Date : 11/6/2013
Page No : 1

Groups Printed- Bank 1

	Ringwood Avenue Southbound						Bay Road Westbound						Ringwood Avenue Northbound						Bay Road Eastbound						Sonoma Avenue Southeastbound								
Start Time	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Left	Bear Left	Thru	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	3	1	0	0	0	0	0	4	2	6	
07:15	0	1	0	0	2	1	1	0	0	0	0	1	2	0	1	0	2	3	0	0	1	2	2	3	0	0	3	0	2	3	8	11	19
07:30	0	2	0	0	3	2	0	1	0	0	0	1	0	0	3	1	0	4	0	0	1	1	2	2	0	0	2	0	3	8	11	19	
07:45	0	5	0	0	1	5	5	2	0	0	0	7	3	0	5	0	1	8	0	0	0	5	10	5	0	0	6	0	1	6	13	31	44
Total	0	8	0	0	6	8	6	3	0	0	1	9	6	0	9	1	3	16	0	0	3	8	17	11	0	0	11	0	6	11	33	55	88
08:00	0	1	0	0	3	1	0	1	0	0	1	1	1	0	3	1	0	5	0	1	0	3	9	4	0	0	3	0	3	3	16	14	30
08:15	0	4	0	0	4	4	0	0	0	0	0	0	3	0	5	0	1	8	0	0	1	5	6	6	0	0	1	0	4	1	15	19	34
08:30	0	2	0	0	4	2	1	1	0	0	0	2	3	0	7	0	0	10	0	1	0	2	17	3	0	0	0	0	4	0	25	17	42
08:45	0	5	0	0	9	5	0	0	0	0	5	0	1	0	1	0	1	2	0	1	0	6	11	7	0	0	0	0	9	0	35	14	49
Total	0	12	0	0	20	12	1	2	0	0	6	3	8	0	16	1	2	25	0	3	1	16	43	20	0	0	4	0	20	4	91	64	155
Grand Total	0	20	0	0	26	20	7	5	0	0	7	12	14	0	25	2	5	41	0	3	4	24	60	31	0	0	15	0	26	15	124	119	243
Approch %	0	100	0	0			58.3	41.7	0	0			34.1	0	61	4.9			0	9.7	12.9	77.4			0	0	100	0					
Total %	0	16.8	0	0		16.8	5.9	4.2	0	0		10.1	11.8	0	21	1.7		34.5	0	2.5	3.4	20.2		26.1	0	0	12.6	0		12.6	51	49	

	Ringwood Avenue Southbound					Bay Road Westbound					Ringwood Avenue Northbound					Bay Road Eastbound					Sonoma Avenue Southeastbound						
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total	
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 07:45																											
07:45	0	5	0	0	5	5	2	0	0	7	3	0	5	0	8	0	0	0	5	5	0	0	6	0	6	31	
08:00	0	1	0	0	1	0	1	0	0	1	1	0	3	1	5	0	1	0	3	4	0	0	3	0	3	14	
08:15	0	4	0	0	4	0	0	0	0	0	3	0	5	0	8	0	0	1	5	6	0	0	1	0	1	19	
08:30	0	2	0	0	2	1	1	0	0	2	3	0	7	0	10	0	1	0	2	3	0	0	0	0	0	17	
Total Volume	0	12	0	0	12	6	4	0	0	10	10	0	20	1	31	0	2	1	15	18	0	0	10	0	10	81	
% App. Total	0	100	0	0		60	40	0	0		32.3	0	64.5	3.2		0	11.1	5.6	83.3		0	0	100	0			
PHF	.000	.600	.000	.000	.600	.300	.500	.000	.000	.357	.833	.000	.714	.250	.775	.000	.500	.250	.750	.750	.000	.000	.417	.000	.417	.653	

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45

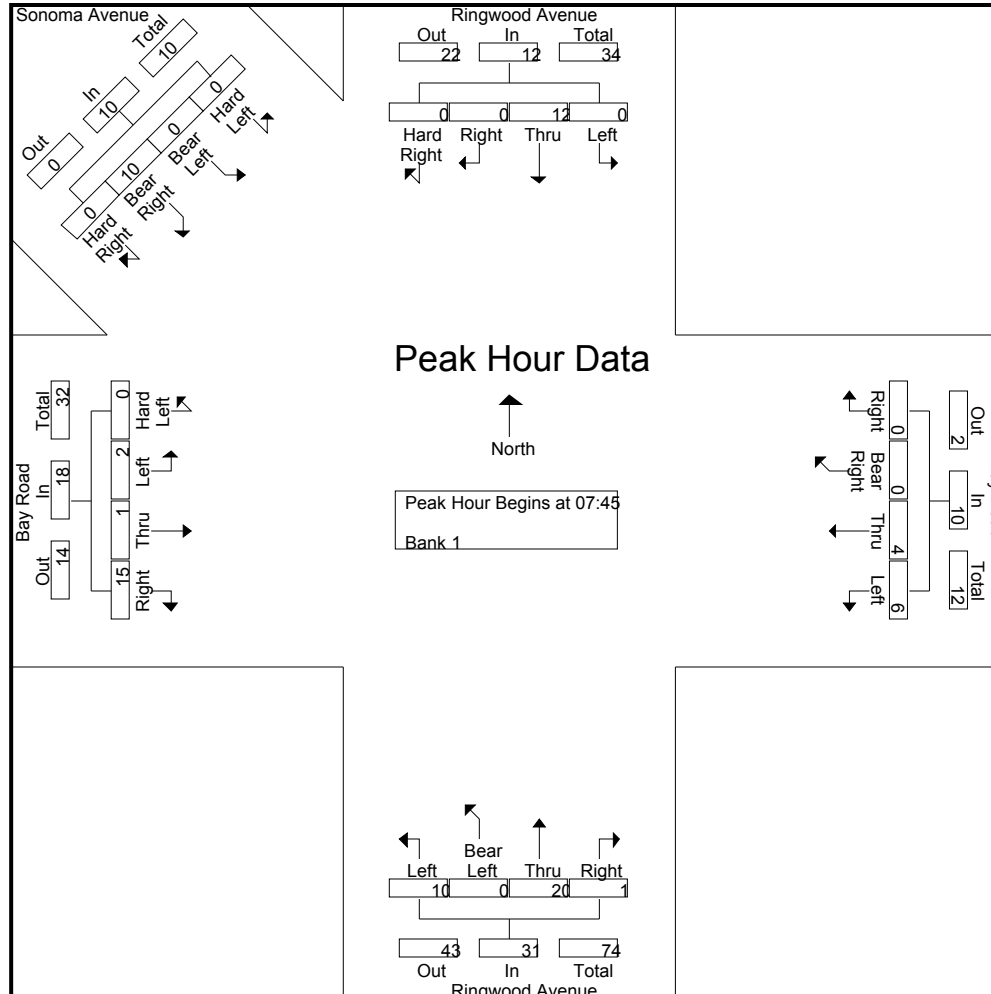
All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of Menlo Park
All Vehicles on Unshifted Tab
Peds & Bikes on Bank 1 Tab
Nothing on Bank 2 Tab

File Name : 13-7650-001 Ringwood Avenue-Sonoma Avenue-Bay Road
Site Code : 00000000
Start Date : 11/6/2013
Page No : 2



ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-002 Ringwood Avenue-Coleman Avenue.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Ringwood Avenue Southbound					Coleman Avenue Westbound					Ringwood Avenue Northbound					Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	2	50	0	0	52	10	0	3	0	13	0	14	5	0	19	0	0	0	0	0	84	0
07:15	5	70	0	0	75	14	0	8	0	22	0	12	2	0	14	0	0	0	0	0	111	0
07:30	2	73	0	0	75	28	0	8	0	36	0	19	7	0	26	0	0	0	0	0	137	0
07:45	12	63	0	0	75	24	0	18	0	42	0	21	12	0	33	0	0	0	0	0	150	0
Total	21	256	0	0	277	76	0	37	0	113	0	66	26	0	92	0	0	0	0	0	482	0
08:00	26	71	0	0	97	26	0	56	0	82	0	31	14	0	45	0	0	0	0	0	224	0
08:15	39	70	0	0	109	13	0	53	0	66	0	35	24	0	59	0	0	0	0	0	234	0
08:30	16	71	0	0	87	21	0	11	0	32	0	33	20	0	53	0	0	0	0	0	172	0
08:45	11	92	0	0	103	37	0	7	0	44	0	35	31	0	66	0	0	0	0	0	213	0
Total	92	304	0	0	396	97	0	127	0	224	0	134	89	0	223	0	0	0	0	0	843	0
Grand Total	113	560	0	0	673	173	0	164	0	337	0	200	115	0	315	0	0	0	0	0	1325	0
Apprch %	16.8%	83.2%	0.0%	0.0%		51.3%	0.0%	48.7%	0.0%		0.0%	63.5%	36.5%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		
Total %	8.5%	42.3%	0.0%	0.0%	50.8%	13.1%	0.0%	12.4%	0.0%	25.4%	0.0%	15.1%	8.7%	0.0%	23.8%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Ringwood Avenue Southbound					Coleman Avenue Westbound					Ringwood Avenue Northbound					Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	26	71	0	0	97	26	0	56	0	82	0	31	14	0	45	0	0	0	0	0	224
08:15	39	70	0	0	109	13	0	53	0	66	0	35	24	0	59	0	0	0	0	0	234
08:30	16	71	0	0	87	21	0	11	0	32	0	33	20	0	53	0	0	0	0	0	172
08:45	11	92	0	0	103	37	0	7	0	44	0	35	31	0	66	0	0	0	0	0	213
Total Volume	92	304	0	0	396	97	0	127	0	224	0	134	89	0	223	0	0	0	0	0	843
% App Total	23.2%	76.8%	0.0%	0.0%		43.3%	0.0%	56.7%	0.0%		0.0%	60.1%	39.9%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	
PHF	.590	.826	.000	.000	.908	.655	.000	.567	.000	.683	.000	.957	.718	.000	.845	.000	.000	.000	.000	.000	.901

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-002 Ringwood Avenue-Coleman Avenue.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Ringwood Avenue Southbound					Coleman Avenue Westbound					Ringwood Avenue Northbound					Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	0	0	1	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2	1
07:15	1	3	0	1	4	2	0	2	2	4	0	1	0	2	1	0	0	0	0	0	9	5
07:30	0	6	0	1	6	0	0	2	1	2	0	6	1	0	7	0	0	0	0	0	15	2
07:45	4	5	0	8	9	1	0	15	0	16	0	6	0	0	6	0	0	0	0	0	31	8
Total	5	14	0	11	19	3	0	20	3	23	0	14	1	2	15	0	0	0	0	0	57	16
08:00	4	3	0	9	7	2	0	16	2	18	0	6	0	1	6	0	0	0	0	0	31	12
08:15	8	8	0	26	16	3	0	7	5	10	0	7	1	0	8	0	0	0	0	0	34	31
08:30	1	8	0	14	9	10	0	1	3	11	0	8	0	3	8	0	0	0	0	0	28	20
08:45	1	12	0	5	13	9	0	0	0	9	0	0	1	1	1	0	0	0	0	0	23	6
Total	14	31	0	54	45	24	0	24	10	48	0	21	2	5	23	0	0	0	0	0	116	69
Grand Total	19	45	0	65	64	27	0	44	13	71	0	35	3	7	38	0	0	0	0	0	173	85
Apprch %	29.7%	70.3%	0.0%			38.0%	0.0%	62.0%			0.0%	92.1%	7.9%			0.0%	0.0%	0.0%				
Total %	11.0%	26.0%	0.0%		37.0%	15.6%	0.0%	25.4%		41.0%	0.0%	20.2%	1.7%		22.0%	0.0%	0.0%	0.0%		0.0%	100.0%	

AM PEAK HOUR	Ringwood Avenue Southbound					Coleman Avenue Westbound					Ringwood Avenue Northbound					Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	4	3	0		7	2	0	16		18	0	6	0		6	0	0	0		0	31
08:15	8	8	0		16	3	0	7		10	0	7	1		8	0	0	0		0	34
08:30	1	8	0		9	10	0	1		11	0	8	0		8	0	0	0		0	28
08:45	1	12	0		13	9	0	0		9	0	0	1		1	0	0	0		0	23
Total Volume	14	31	0		45	24	0	24		48	0	21	2		23	0	0	0		0	116
% App Total	31.1%	68.9%	0.0%			50.0%	0.0%	50.0%			0.0%	91.3%	8.7%			0.0%	0.0%	0.0%			
PHF	.438	.646	.000		.703	.600	.000	.375		.667	.000	.656	.500		.719	.000	.000	.000		.000	.853

QUALITY COUNTS REPORT

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Intersectio Middlefield Ringwood Ave

City/State: Menlo Park CA

QCJobNo: 10756325

ClientID:

Date: 5/8/2012

Comments:

PEAK HOU 7:50 AM

PEAK HOU 8:50 AM

PEAK 15-M 8:35 AM

PEAK 15-M 8:50 AM

PHF 0.91

Lane Configuration:

SIGNAL

SBLane1

SBLane2

SBLane3

SBLane4

SBLane5

SBLane6

SBLane7

SIGNAL

SIGNAL

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PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
44	596	96	222	766	82	9	4	3	135	47	278	736	1070	16	460	883	904	322	173

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
4.5	4.4	0	2.7	2.5	2.4	0	25	0	3	0	5.4	3.8	2.5	6.3	4.1	4.6	2.5	2.2	2.3

PEAK-HOUR VOLUMES - PEDESTRIANS

North	South	East	West
3	0	32	7

PEAK-HOUR VOLUMES - BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
1	27	4	5	11	1	0	1	0	5	3	0

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBUTurn	NBRTOR	SBLeft	SBThru	SBRight	SBUTurn	SBRTOR	EBLeft	EBThru	EBRight	EBUTurn	EBRTOR	WBLeft	WBThru	WBRight	WBUTurn	WBRTOR	Total
All Vehicle	28	596	140	0	0	280	852	80	0	0	20	4	8	0	0	164	56	284	0	0	2512
Heavy Truc	0	20	0	0	0	8	28	0	0	0	0	0	0	0	0	4	0	24	0	0	84
Pedestrians	0	0	0	0	0	0	0	0	0	0	12	16	0	0	0	0	0	0	0	0	28
Bicycles	0	4	1	0	0	1	1	0	0	0	0	1	0	0	0	2	1	0	0	0	11

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Tot
7:00 AM	1	27	2	0	0	2	35	7	0	0	0	0	0	0	0	1	2	10	0	0	87	
7:05 AM	1	18	1	0	0	3	20	3	0	0	0	0	0	0	0	1	4	8	0	0	59	
7:10 AM	3	28	3	0	0	9	29	4	0	0	0	0	1	0	0	3	3	7	0	0	90	
7:15 AM	1	31	5	0	0	7	25	3	0	0	0	0	0	0	0	0	4	11	0	0	87	
7:20 AM	4	37	7	0	0	8	32	3	0	0	0	0	0	0	0	3	1	16	0	0	111	
7:25 AM	1	54	6	0	0	15	45	1	0	0	0	0	1	0	0	6	0	17	0	0	146	
7:30 AM	1	63	6	0	0	22	36	2	0	0	1	0	0	0	0	4	4	13	0	0	152	
7:35 AM	5	35	4	0	0	10	30	2	0	0	0	0	0	0	0	8	6	31	0	0	131	
7:40 AM	1	66	7	0	0	15	55	9	0	0	0	1	0	0	0	5	1	24	0	0	184	
7:45 AM	2	53	7	0	0	10	62	6	0	0	0	0	1	0	0	9	1	23	0	0	174	
7:50 AM	3	57	5	0	0	9	55	6	0	0	0	1	0	0	0	14	4	29	0	0	183	
7:55 AM	5	67	4	0	0	15	61	7	0	0	0	0	0	0	0	8	7	28	0	0	202	1606
8:00 AM	3	44	4	0	0	7	76	8	0	0	0	1	0	0	0	6	1	17	0	0	167	1686
8:05 AM	5	51	4	0	0	24	55	4	0	0	0	0	0	0	0	10	3	19	0	0	175	1802
8:10 AM	4	48	12	0	0	15	67	10	0	0	1	1	0	0	0	17	6	29	0	0	210	1922
8:15 AM	7	58	4	0	0	14	67	9	0	0	1	0	0	0	0	8	4	18	0	0	190	2025
8:20 AM	3	41	6	0	0	19	60	7	0	0	0	0	1	0	0	12	2	22	0	0	173	2087
8:25 AM	6	42	8	0	0	19	55	7	0	0	2	0	0	0	0	9	4	22	0	0	174	2115
8:30 AM	1	39	14	0	0	30	57	4	0	0	0	0	0	0	0	10	2	23	0	0	180	2143
8:35 AM	4	40	18	0	0	31	76	7	0	0	0	0	1	0	0	15	5	25	0	0	222	2234
8:40 AM	2	43	10	0	0	19	63	9	0	0	1	1	1	0	0	13	7	22	0	0	191	2241
8:45 AM	1	66	7	0	0	20	74	4	0	0	4	0	0	0	0	13	2	24	0	0	215	2282
8:50 AM	5	47	5	0	0	11	58	14	0	0	0	0	0	0	0	9	3	22	0	0	174	2273
8:55 AM	2	44	0	0	0	9	80	13	0	0	2	0	0	0	0	7	5	27	0	0	189	2260

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
7:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:10 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
7:15 AM	0	1	1	0	0	0	0	0	0	0	0	1	3
7:20 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
7:25 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
7:30 AM	0	4	0	1	3	1	0	0	0	0	0	1	10
7:35 AM	0	0	0	0	1	0	0	0	0	2	0	0	3
7:40 AM	0	0	0	1	1	0	0	0	0	0	0	1	3
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
7:50 AM	0	4	0	1	1	0	0	0	0	0	0	0	6
7:55 AM	0	2	0	1	1	0	0	0	0	0	0	1	5
8:00 AM	0	2	0	0	2	1	0	0	0	1	0	0	6
8:05 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
8:10 AM	0	1	0	1	2	0	0	1	0	0	0	1	6
8:15 AM	0	2	0	0	1	0	0	0	0	0	0	2	5
8:20 AM	1	1	0	0	2	0	0	0	0	1	0	1	6
8:25 AM	1	4	0	0	2	0	0	0	0	0	0	1	8
8:30 AM	0	3	0	1	1	0	0	0	0	1	0	3	9
8:35 AM	0	1	0	1	3	0	0	0	0	0	0	2	7
8:40 AM	0	2	0	1	2	0	0	0	0	1	0	3	9
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	1	5
8:50 AM	0	3	0	0	1	2	0	0	0	1	0	0	7
8:55 AM	0	6	0	0	3	0	0	0	0	0	0	1	10

QUALITY COUNTS REPORT
=====

Intersectio Middlefield Ringwood Ave
City/State: Menlo Park CA
QJobNo: 10756325
ClientID:
Date: 5/8/2012
Comments:

PEAK HOU 7:50 AM
PEAK HOU 8:50 AM
PEAK 15-M 8:35 AM
PEAK 15-M 8:50 AM
PHF 0.91

Lane Configuration:
SIGNAL SBLane1 SBLane2 SBLane3 SBLane4 SBLane5 SBLane6 SBLane7
TR T L

EBLane7 R
EBLane6 LT
EBLane5
EBLane4
EBLane3
EBLane2
EBLane1 LTR
SIGNAL

NBLane7 NBLane6 NBLane5 NBLane4 NBLane3 NBLane2 NBLane1 SIGNAL

SIGNAL
WBLane1
WBLane2
WBLane3
WBLane4
WBLane5
WBLane6
WBLane7

PEDESTRIAN VOLUMES

Time Perio	North	South	East	West	Total
7:00 AM	0	0	0	0	0
7:05 AM	3	0	2	0	5
7:10 AM	0	0	1	1	2
7:15 AM	0	0	0	0	0
7:20 AM	0	0	8	1	9
7:25 AM	0	0	1	1	2
7:30 AM	0	0	4	0	4
7:35 AM	1	0	0	0	1
7:40 AM	0	0	1	1	2
7:45 AM	0	0	1	1	2
7:50 AM	0	0	0	0	0
7:55 AM	2	0	1	0	3
8:00 AM	0	0	0	1	1
8:05 AM	0	0	0	1	1
8:10 AM	0	0	1	0	1
8:15 AM	0	0	2	0	2
8:20 AM	0	0	0	1	1
8:25 AM	0	0	22	0	22
8:30 AM	1	0	2	1	4
8:35 AM	0	0	3	1	4
8:40 AM	0	0	0	1	1
8:45 AM	0	0	1	1	2
8:50 AM	0	0	5	0	5
8:55 AM	0	0	1	0	1

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	2	0	2	0	0	0	0	2	0	0	6
7:05 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
7:10 AM	0	1	0	1	0	0	0	0	0	0	0	0	2
7:15 AM	0	1	1	0	2	0	0	0	0	0	0	0	4
7:20 AM	0	2	0	0	1	0	0	0	0	0	0	1	4
7:25 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	2	1	0	1	0	0	0	0	0	0	0	4
7:35 AM	0	1	1	0	0	0	0	0	0	2	0	1	5
7:40 AM	0	7	3	1	2	0	0	0	0	1	0	0	14
7:45 AM	0	13	0	0	1	0	0	0	0	1	0	0	15
7:50 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
7:55 AM	0	13	0	1	1	1	0	0	0	0	0	0	16
8:00 AM	0	4	0	1	1	0	0	0	0	0	0	0	6
8:05 AM	0	2	0	0	2	0	0	0	0	0	0	0	4
8:10 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:15 AM	1	1	0	1	0	0	0	0	0	0	0	0	3
8:20 AM	0	0	1	0	1	0	0	0	0	1	0	0	3
8:25 AM	0	0	0	0	1	0	0	0	0	2	1	0	4
8:30 AM	0	1	2	1	2	0	0	0	0	0	1	0	7
8:35 AM	0	1	0	0	0	0	0	0	0	1	0	0	2
8:40 AM	0	2	1	0	0	0	0	0	0	0	0	0	3
8:45 AM	0	1	0	1	1	0	0	1	0	1	1	0	6
8:50 AM	0	1	1	0	0	0	0	0	0	1	0	0	3
8:55 AM	0	0	0	0	1	0	0	0	0	0	0	0	1

QUALITY COUNTS REPORT

=====

Intersection: Bay Rd Willow Rd
City/State: Menlo Park CA
QJobNo: 10756361
ClientID:
Date: 5/9/2012
Comments:

PEAK HOUR: 7:40 AM
PEAK HOUR: 8:40 AM
PEAK 15-M: 7:40 AM
PEAK 15-M: 7:55 AM
PHF: 0.94

Lane Configuration:

SIGNAL SB Lane1 SB Lane2 SB Lane3 SB Lane4 SB Lane5 SB Lane6 SB Lane7
R L
EB Lane7
EB Lane6
EB Lane5
EB Lane4
EB Lane3 L
EB Lane2 T
EB Lane1 T
SIGNAL
NB Lane7 NB Lane6 NB Lane5 NB Lane4 NB Lane3 NB Lane2 NB Lane1 SIGNAL

SIGNAL
WB Lane1
WB Lane2
WB Lane3
WB Lane4
WB Lane5
WB Lane6
WB Lane7

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0	0	0	0	343	0	78	77	1308	0	1093	299	0	421	1385	1392	377	0	1650	1171

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0	0	0	0	1.7	0	2.6	3.9	2.9	0	4.3	3.7	0	1.9	3	4.2	3.7	0	2.7	4.2

PEAK-HOUR VOLUMES - PEDESTRIANS

North	South	East	West
10	16	0	0

PEAK-HOUR VOLUMES - BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
0	0	0	0	0	1	0	8	0	0	7	0

PEAK 15-MIN FLOWRATES

VehicleType	NBLeft	NBThru	NBRight	NBUTurn	NBRTOR	SBLeft	SBThru	SBRight	SBUTurn	SBRTOR	EBLeft	EBThru	EBRight	EBUTurn	EBRTOR	WBLeft	WBThru	WBRight	WBUTurn	WBRTOR	Total
All Vehicles	0	0	0	0	0	308	0	32	0	0	52	1320	0	0	0	0	1252	432	0	0	3396
Heavy Truc	0	0	0	0	0	8	0	4	0	0	8	36	0	0	0	0	64	20	0	0	140
Pedestrians		28					32					0					0				60
Bicycles	0	0	0			0	0	0			0	1	0			0	1	0			2

ALL-VEHICLE VOLUMES

Time Period	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Totz
7:00 AM	0	0	0	0	0	9	0	2	0	0	2	59	0	0	0	0	106	20	0	0	198	
7:05 AM	0	0	0	0	0	12	0	0	0	0	0	70	0	1	0	0	85	20	0	0	188	
7:10 AM	0	0	0	0	0	19	0	1	0	0	0	78	0	0	0	0	124	30	0	0	252	
7:15 AM	0	0	0	0	0	13	0	8	0	0	2	93	0	2	0	0	88	33	0	0	239	
7:20 AM	0	0	0	0	0	14	0	5	0	0	0	67	0	0	0	0	113	41	0	0	240	
7:25 AM	0	0	0	0	0	19	0	2	0	0	0	73	0	0	0	0	116	47	0	0	257	
7:30 AM	0	0	0	0	0	15	0	1	0	0	6	86	0	0	0	0	101	33	0	0	242	
7:35 AM	0	0	0	0	0	18	0	2	0	0	5	92	0	0	0	0	100	26	0	0	243	
7:40 AM	0	0	0	0	0	29	0	1	0	0	6	93	0	0	0	0	98	36	0	0	263	
7:45 AM	0	0	0	0	0	24	0	4	0	0	3	106	0	0	0	0	103	26	0	0	266	
7:50 AM	0	0	0	0	0	24	0	3	0	0	4	131	0	0	0	0	112	46	0	0	320	
7:55 AM	0	0	0	0	0	23	0	10	0	0	7	116	0	0	0	0	75	27	0	0	258	2966
8:00 AM	0	0	0	0	0	36	0	4	1	0	3	98	0	0	0	0	78	24	0	0	244	3012
8:05 AM	0	0	0	0	0	35	0	7	0	0	10	116	0	0	0	0	94	20	0	0	282	3106
8:10 AM	0	0	0	0	0	33	0	12	0	0	5	116	0	0	0	0	96	25	0	0	287	3141
8:15 AM	0	0	0	0	0	22	0	8	0	0	13	109	0	0	0	0	85	19	0	0	256	3158
8:20 AM	0	0	0	0	0	26	0	8	0	0	7	107	0	0	0	0	97	22	0	0	267	3185
8:25 AM	0	0	0	0	0	32	0	6	0	0	6	108	0	0	0	0	83	15	0	0	250	3178
8:30 AM	0	0	0	0	0	25	0	7	0	0	3	121	0	0	0	0	87	16	0	0	259	3195
8:35 AM	0	0	0	0	0	33	0	8	0	0	10	87	0	0	0	0	85	23	0	0	246	3198
8:40 AM	0	0	0	0	0	24	0	5	0	0	3	96	0	0	0	0	93	29	0	0	250	3185
8:45 AM	0	0	0	0	0	29	0	2	0	0	2	96	0	0	0	0	80	34	0	0	243	3162
8:50 AM	0	0	0	0	0	21	0	3	0	0	4	104	0	0	0	0	78	29	0	0	239	3081
8:55 AM	0	0	0	0	0	24	0	7	0	0	3	114	0	0	0	0	82	26	0	0	256	3079

HEAVY-VEHICLE VOLUMES

Time Period	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	0	1	0	0	0	3	0	0	1	0	5
7:05 AM	0	0	0	0	0	0	0	4	0	0	3	1	8
7:10 AM	0	0	0	1	0	0	0	3	0	0	4	2	10
7:15 AM	0	0	0	0	0	1	0	5	0	0	4	0	10
7:20 AM	0	0	0	0	0	0	0	3	0	0	6	1	10
7:25 AM	0	0	0	1	0	0	0	2	0	0	4	2	9
7:30 AM	0	0	0	0	0	0	0	3	0	0	4	0	7
7:35 AM	0	0	0	1	0	0	1	4	0	0	7	1	14
7:40 AM	0	0	0	0	0	0	2	3	0	0	4	0	9
7:45 AM	0	0	0	2	0	0	0	2	0	0	3	3	10
7:50 AM	0	0	0	0	0	1	0	4	0	0	9	2	16
7:55 AM	0	0	0	0	0	0	0	6	0	0	1	0	7
8:00 AM	0	0	0	0	0	0	0	1	0	0	6	0	7
8:05 AM	0	0	0	2	0	0	0	4	0	0	3	0	9
8:10 AM	0	0	0	0	0	0	0	5	0	0	4	1	10
8:15 AM	0	0	0	1	0	0	0	4	0	0	3	0	8
8:20 AM	0	0	0	0	0	1	0	2	0	0	4	2	9
8:25 AM	0	0	0	0	0	0	0	3	0	0	2	1	6
8:30 AM	0	0	0	1	0	0	0	3	0	0	4	1	9
8:35 AM	0	0	0	0	0	0	1	1	0	0	4	1	7
8:40 AM	0	0	0	0	0	0	0	2	0	0	9	3	14
8:45 AM	0	0	0	0	0	0	0	4	0	0	5	2	11
8:50 AM	0	0	0	0	0	0	1	4	0	0	5	3	13
8:55 AM	0	0	0	0	0	0	1	4	0	0	8	0	13

PEDESTRIAN VOLUMES

Time Period	North	South	East	West	Total
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QUALITY COUNTS REPORT
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Intersection: Bay Rd Willow Rd
City/State: Menlo Park CA
QJobNo: 10756361
ClientID:
Date: 5/9/2012
Comments:

Lane Configuration:

SIGNAL	SB Lane1	SB Lane2	SB Lane3	SB Lane4	SB Lane5	SB Lane6	SB Lane7		SIGNAL
	R	L							
EB Lane7								R	WB Lane1
EB Lane6								T	WB Lane2
EB Lane5								T	WB Lane3
EB Lane4									WB Lane4
EB Lane3	L								WB Lane5
EB Lane2	T								WB Lane6
EB Lane1	T								WB Lane7
SIGNAL									
	NB Lane7	NB Lane6	NB Lane5	NB Lane4	NB Lane3	NB Lane2	NB Lane1	SIGNAL	

PEAK HOUR: 7:40 AM
PEAK HOUR: 8:40 AM
PEAK 15-M: 7:40 AM
PEAK 15-M: 7:55 AM
PHF: 0.94

7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	0	0
7:10 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0
7:30 AM	0	1	0	0	1
7:35 AM	0	0	0	0	0
7:40 AM	6	0	0	0	6
7:45 AM	0	5	0	0	5
7:50 AM	2	2	0	0	4
7:55 AM	1	2	0	0	3
8:00 AM	0	0	0	0	0
8:05 AM	0	0	0	0	0
8:10 AM	0	1	0	0	1
8:15 AM	0	0	0	0	0
8:20 AM	0	0	0	0	0
8:25 AM	0	4	0	0	4
8:30 AM	0	0	0	0	0
8:35 AM	1	2	0	0	3
8:40 AM	0	0	0	0	0
8:45 AM	1	1	0	0	2
8:50 AM	0	3	0	0	3
8:55 AM	0	1	0	0	1

BICYCLE VOLUMES

Time Period	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	1	0	0	0	1	0	2
7:10 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:20 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:25 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
7:35 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
7:40 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:55 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:05 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:10 AM	0	0	0	0	0	1	0	1	0	0	2	0	4
8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:20 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:25 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:35 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:40 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:50 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:55 AM	0	0	0	0	0	0	0	1	0	0	0	1	2

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-003 Willow Road-Chester Street.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Willow Road Southbound					Chester Street Westbound					Willow Road Northbound					Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	25	265	0	0	290	0	0	29	0	29	0	207	0	0	207	0	0	0	0	0	526	0
07:15	31	266	0	0	297	0	0	47	0	47	0	248	4	0	252	0	0	0	0	0	596	0
07:30	36	283	0	0	319	0	0	44	0	44	0	267	2	0	269	0	0	0	0	0	632	0
07:45	49	314	0	0	363	0	0	45	0	45	0	303	2	0	305	0	0	0	0	0	713	0
Total	141	1128	0	0	1269	0	0	165	0	165	0	1025	8	0	1033	0	0	0	0	0	2467	0
08:00	48	319	0	0	367	0	0	57	0	57	0	334	2	0	336	0	0	0	0	0	760	0
08:15	28	294	0	0	322	0	0	38	0	38	0	329	3	0	332	0	0	0	0	0	692	0
08:30	27	317	0	0	344	0	0	34	0	34	0	324	3	0	327	0	0	0	0	0	705	0
08:45	35	308	0	0	343	0	0	28	0	28	0	265	2	0	267	0	0	0	0	0	638	0
Total	138	1238	0	0	1376	0	0	157	0	157	0	1252	10	0	1262	0	0	0	0	0	2795	0
Grand Total	279	2366	0	0	2645	0	0	322	0	322	0	2277	18	0	2295	0	0	0	0	0	5262	0
Apprch %	10.5%	89.5%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	99.2%	0.8%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		
Total %	5.3%	45.0%	0.0%	0.0%	50.3%	0.0%	0.0%	6.1%	0.0%	6.1%	0.0%	43.3%	0.3%	0.0%	43.6%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Willow Road Southbound					Chester Street Westbound					Willow Road Northbound					Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	49	314	0	0	363	0	0	45	0	45	0	303	2	0	305	0	0	0	0	0	713
08:00	48	319	0	0	367	0	0	57	0	57	0	334	2	0	336	0	0	0	0	0	760
08:15	28	294	0	0	322	0	0	38	0	38	0	329	3	0	332	0	0	0	0	0	692
08:30	27	317	0	0	344	0	0	34	0	34	0	324	3	0	327	0	0	0	0	0	705
Total Volume	152	1244	0	0	1396	0	0	174	0	174	0	1290	10	0	1300	0	0	0	0	0	2870
% App Total	10.9%	89.1%	0.0%	0.0%		0.0%	0.0%	100.0%	0.0%		0.0%	99.2%	0.8%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	
PHF	.776	.975	.000	.000	.951	.000	.000	.763	.000	.763	.000	.966	.833	.000	.967	.000	.000	.000	.000	.000	.944

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-003 Willow Road-Chester Street.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Willow Road Southbound					Chester Street Westbound					Willow Road Northbound					Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	3	0	0	3	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	4	1
07:15	0	3	0	0	3	0	0	2	10	2	0	2	1	0	3	0	0	0	0	0	8	10
07:30	0	6	0	0	6	0	0	0	11	0	0	2	0	0	2	0	0	0	0	0	8	11
07:45	1	4	0	0	5	0	0	0	8	0	0	5	0	0	5	0	0	0	0	0	10	8
Total	1	16	0	0	17	0	0	3	30	3	0	9	1	0	10	0	0	0	0	0	30	30
08:00	0	2	0	0	2	0	0	0	5	0	0	1	0	0	1	0	0	0	0	0	3	5
08:15	0	3	0	0	3	0	0	1	4	1	0	3	0	0	3	0	0	0	0	0	7	4
08:30	0	4	0	0	4	0	0	0	4	0	0	5	0	0	5	0	0	0	0	0	9	4
08:45	0	0	0	0	0	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	1	3
Total	0	9	0	0	9	0	0	1	16	1	0	10	0	0	10	0	0	0	0	0	20	16
Grand Total	1	25	0	0	26	0	0	4	46	4	0	19	1	0	20	0	0	0	0	0	50	46
Apprch %	3.8%	96.2%	0.0%			0.0%	0.0%	100.0%			0.0%	95.0%	5.0%			0.0%	0.0%	0.0%				
Total %	2.0%	50.0%	0.0%		52.0%	0.0%	0.0%	8.0%		8.0%	0.0%	38.0%	2.0%		40.0%	0.0%	0.0%	0.0%		0.0%	100.0%	

AM PEAK HOUR	Willow Road Southbound					Chester Street Westbound					Willow Road Northbound					Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	1	4	0		5	0	0	0		0	0	5	0		5	0	0	0		0	10
08:00	0	2	0		2	0	0	0		0	0	1	0		1	0	0	0		0	3
08:15	0	3	0		3	0	0	1		1	0	3	0		3	0	0	0		0	7
08:30	0	4	0		4	0	0	0		0	0	5	0		5	0	0	0		0	9
Total Volume	1	13	0		14	0	0	1		1	0	14	0		14	0	0	0		0	29
% App Total	7.1%	92.9%	0.0%			0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.250	.813	.000		.700	.000	.000	.250		.250	.000	.700	.000		.700	.000	.000	.000		.000	.725

QUALITY COUNTS REPORT
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Intersectio Durham St Willow Rd
City/State: Menlo Park CA
QJobNo: 10756333
ClientID:
Date: 5/8/2012
Comments:

Lane Configuration:

SIGNAL SB Lane1 SB Lane2 SB Lane3 SB Lane4 SB Lane5 SB Lane6 SB Lane7
R LT
EB Lane7 TR
EB Lane6 L
EB Lane5
EB Lane4
EB Lane3 L
EB Lane2 T
EB Lane1 TR
SIGNAL L TR
NB Lane7 NB Lane6 NB Lane5 NB Lane4 NB Lane3 NB Lane2 NB Lane1 SIGNAL

SIGNAL
WBLane1
WBLane2
WBLane3
WBLane4
WBLane5
WBLane6
WBLane7

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
62	18	109	54	5	6	34	1072	11	29	743	95	189	65	1117	867	147	45	1235	811

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
1.6	0	1.8	11.1	0	66.7	11.8	1.6	9.1	0	4.8	10.5	1.6	15.4	2	5.3	9.5	2.2	2	5.1

PEAK-HOUR VOLUMES - PEDESTRIANS

North	South	East	West
3	16	10	3

PEAK-HOUR VOLUMES - BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
0	1	1	0	0	0	0	4	0	0	9	0

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBUTurn	NBRTOR	SBLeft	SBThru	SBRight	SBUTurn	SBRTOR	EBLeft	EBThru	EBRight	EBUTurn	EBRTOR	WBLeft	WBThru	WBRight	WBUTurn	WBRTOR	Total
All Vehicle:	36	4	112	0	0	60	4	12	0	0	24	1192	12	0	0	24	816	76	0	0	2372
Heavy Truc	0	0	0	0	0	0	0	4	0	0	0	16	0	0	0	0	28	4	0	0	52
Pedestrians	8	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	24
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Totz
7:00 AM	0	2	3	0	0	3	0	1	0	0	0	35	0	0	0	3	54	15	0	0	116	
7:05 AM	0	2	4	0	0	2	2	0	0	0	3	59	0	0	0	3	53	10	0	0	138	
7:10 AM	5	0	1	0	0	1	0	0	0	0	0	53	2	0	0	2	83	7	0	0	154	
7:15 AM	3	0	2	0	0	4	0	0	0	0	0	59	0	0	0	2	71	17	0	0	158	
7:20 AM	6	2	6	0	0	7	0	0	0	0	2	48	3	0	0	4	69	15	0	0	162	
7:25 AM	3	1	1	0	0	3	0	0	0	0	1	54	0	0	0	1	44	7	0	0	115	
7:30 AM	1	3	9	0	0	6	0	1	0	0	1	61	0	0	0	5	63	6	0	0	156	
7:35 AM	3	1	10	0	0	7	0	1	0	0	1	70	1	0	0	1	51	11	0	0	157	
7:40 AM	9	2	6	0	0	4	1	1	0	0	1	76	0	0	0	2	56	12	0	0	170	
7:45 AM	5	7	12	0	0	2	0	1	0	0	3	81	0	0	0	3	54	10	0	0	177	
7:50 AM	5	2	7	0	0	2	1	1	0	0	7	79	2	0	0	2	64	5	0	0	177	
7:55 AM	6	0	13	0	0	0	0	0	0	0	2	87	2	0	0	2	68	11	0	0	191	1871
8:00 AM	5	4	9	0	0	8	1	1	0	0	2	74	2	0	0	0	60	5	0	0	171	1926
8:05 AM	7	2	14	0	0	8	1	0	0	0	7	76	0	0	0	3	44	6	0	0	168	1956
8:10 AM	7	1	14	0	0	1	1	0	0	0	3	91	2	0	0	2	64	6	0	0	192	1994
8:15 AM	8	0	6	0	0	2	0	0	0	0	5	99	2	0	0	0	53	12	0	0	187	2023
8:20 AM	5	1	9	0	0	2	0	1	0	0	2	87	0	0	0	3	65	10	0	0	185	2046
8:25 AM	7	1	9	0	0	4	1	0	0	0	2	95	1	0	0	2	60	9	0	0	191	2122
8:30 AM	6	3	6	0	0	4	0	1	0	0	3	100	1	0	0	2	57	6	0	0	189	2155
8:35 AM	5	2	9	0	0	8	0	0	0	0	2	76	0	0	0	3	57	8	0	0	170	2168
8:40 AM	3	0	13	0	0	6	0	0	0	0	0	100	0	0	0	2	70	5	0	0	199	2197
8:45 AM	3	1	5	0	0	5	0	1	0	0	4	90	1	0	0	3	64	5	0	0	182	2202
8:50 AM	3	0	10	0	0	4	1	2	0	0	2	108	2	0	0	1	70	9	0	0	212	2237
8:55 AM	3	3	5	0	0	2	0	0	0	0	2	76	0	0	0	8	79	14	0	0	192	2238

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	0	1	0	0	0	1	0	0	2	1	5
7:05 AM	0	0	0	1	0	0	0	2	0	0	1	1	5
7:10 AM	1	0	0	0	0	0	0	4	0	1	1	0	7
7:15 AM	0	0	0	1	0	0	0	1	0	0	2	2	6
7:20 AM	0	0	0	1	0	0	0	1	1	0	3	0	6
7:25 AM	0	0	0	0	0	0	0	0	0	0	5	1	6
7:30 AM	0	0	1	1	0	1	3	0	1	5	0	13	
7:35 AM	0	0	1	2	0	0	1	3	0	0	1	0	8
7:40 AM	0	0	0	1	0	1	0	1	0	0	2	1	6
7:45 AM	0	1	0	0	0	0	0	0	0	0	5	1	7
7:50 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
7:55 AM	0	0	0	0	0	0	1	2	0	2	2	0	7
8:00 AM	0	0	1	1	0	1	2	0	0	8	0	14	
8:05 AM	0	0	0	0	0	0	0	2	0	0	0	1	3
8:10 AM	0	0	1	0	0	0	0	1	1	0	2	1	6
8:15 AM	0	0	0	0	0	0	1	4	0	0	3	0	8
8:20 AM	1	0	0	1	0	1	0	2	0	0	1	3	9
8:25 AM	0	0	0	0	0	0	0	2	0	0	2	2	6
8:30 AM	0	0	0	1	0	1	0	0	0	0	1	2	5
8:35 AM	0	0	0	2	0	0	1	0	0	0	4	0	7
8:40 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:45 AM	0	0	0	0	0	0	0	1	0	0	2	1	4
8:50 AM	0	0	0	0	0	1	0	2	0	0	4	0	7
8:55 AM	0	0	0	1	0	0	1	0	0	0	8	0	10

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-004 Willow Road-O'Keefe Street.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Willow Road Southbound					O'Keefe Street Westbound					Willow Road Northbound					Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	251	0	0	254	5	0	17	0	22	0	161	1	0	162	0	0	0	0	0	438	0
07:15	0	249	0	0	249	4	0	18	0	22	0	211	2	0	213	0	0	0	0	0	484	0
07:30	6	254	0	0	260	3	0	13	0	16	0	221	2	0	223	0	0	0	0	0	499	0
07:45	9	272	0	0	281	4	0	11	0	15	0	266	6	0	272	0	0	0	0	0	568	0
Total	18	1026	0	0	1044	16	0	59	0	75	0	859	11	0	870	0	0	0	0	0	1989	0
08:00	12	296	0	0	308	4	0	10	0	14	0	296	13	0	309	0	0	0	0	0	631	0
08:15	4	250	0	0	254	5	0	17	0	22	0	286	11	0	297	0	0	0	0	0	573	0
08:30	5	273	0	0	278	3	0	13	0	16	0	285	11	0	296	0	0	0	0	0	590	0
08:45	11	276	0	0	287	4	0	16	0	20	0	237	7	0	244	0	0	0	0	0	551	0
Total	32	1095	0	0	1127	16	0	56	0	72	0	1104	42	0	1146	0	0	0	0	0	2345	0
Grand Total	50	2121	0	0	2171	32	0	115	0	147	0	1963	53	0	2016	0	0	0	0	0	4334	0
Apprch %	2.3%	97.7%	0.0%	0.0%		21.8%	0.0%	78.2%	0.0%		0.0%	97.4%	2.6%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	1.2%	48.9%	0.0%	0.0%	50.1%	0.7%	0.0%	2.7%	0.0%	3.4%	0.0%	45.3%	1.2%	0.0%	46.5%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Willow Road Southbound					O'Keefe Street Westbound					Willow Road Northbound					Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	9	272	0	0	281	4	0	11	0	15	0	266	6	0	272	0	0	0	0	0	568
08:00	12	296	0	0	308	4	0	10	0	14	0	296	13	0	309	0	0	0	0	0	631
08:15	4	250	0	0	254	5	0	17	0	22	0	286	11	0	297	0	0	0	0	0	573
08:30	5	273	0	0	278	3	0	13	0	16	0	285	11	0	296	0	0	0	0	0	590
Total Volume	30	1091	0	0	1121	16	0	51	0	67	0	1133	41	0	1174	0	0	0	0	0	2362
% App Total	2.7%	97.3%	0.0%	0.0%		23.9%	0.0%	76.1%	0.0%		0.0%	96.5%	3.5%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.625	.921	.000	.000	.910	.800	.000	.750	.000	.761	.000	.957	.788	.000	.950	.000	.000	.000	.000	.000	.936

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-004 Willow Road-O'Keefe Street.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Willow Road Southbound					O'Keefe Street Westbound					Willow Road Northbound					Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	4	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	2
07:15	0	2	0	0	2	0	0	0	6	0	0	3	0	0	3	0	0	0	0	0	5	6
07:30	0	3	0	0	3	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	3	17
07:45	0	4	0	0	4	3	0	0	13	3	0	5	1	0	6	0	0	0	0	0	13	13
Total	0	13	0	0	13	3	0	0	38	3	0	8	1	0	9	0	0	0	0	0	25	38
08:00	0	5	0	0	5	0	0	0	19	0	0	3	0	0	3	0	0	0	0	0	8	19
08:15	0	3	0	0	3	2	0	0	12	2	0	4	0	0	4	0	0	0	0	0	9	12
08:30	0	4	0	0	4	0	0	0	6	0	0	6	0	0	6	0	0	0	0	0	10	6
08:45	0	0	0	0	0	1	0	0	5	1	0	3	0	0	3	0	0	0	0	0	4	5
Total	0	12	0	0	12	3	0	0	42	3	0	16	0	0	16	0	0	0	0	0	31	42
Grand Total	0	25	0	0	25	6	0	0	80	6	0	24	1	0	25	0	0	0	0	0	56	80
Apprch %	0.0%	100.0%	0.0%			100.0%	0.0%	0.0%			0.0%	96.0%	4.0%			0.0%	0.0%	0.0%				
Total %	0.0%	44.6%	0.0%		44.6%	10.7%	0.0%	0.0%		10.7%	0.0%	42.9%	1.8%		44.6%	0.0%	0.0%	0.0%		0.0%	100.0%	

AM PEAK HOUR	Willow Road Southbound					O'Keefe Street Westbound					Willow Road Northbound					Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	4	0		4	3	0	0		3	0	5	1		6	0	0	0		0	13
08:00	0	5	0		5	0	0	0		0	0	3	0		3	0	0	0		0	8
08:15	0	3	0		3	2	0	0		2	0	4	0		4	0	0	0		0	9
08:30	0	4	0		4	0	0	0		0	0	6	0		6	0	0	0		0	10
Total Volume	0	16	0		16	5	0	0		5	0	18	1		19	0	0	0		0	40
% App Total	0.0%	100.0%	0.0%			100.0%	0.0%	0.0%			0.0%	94.7%	5.3%			0.0%	0.0%	0.0%			
PHF	.000	.800	.000		.800	.417	.000	.000		.417	.000	.750	.250		.792	.000	.000	.000		.000	.769

QUALITY COUNTS REPORT
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Intersectio Coleman A Willow Rd
City/State: Menlo Park CA
QJobNo: 10756331
ClientID:
Date: 5/8/2012
Comments:

PEAK HOU 8:00 AM
PEAK HOU 9:00 AM
PEAK 15-M 8:40 AM
PEAK 15-M 8:55 AM
PHF 0.94

Lane Configuration:
SIGNAL SB Lane1 SB Lane2 SB Lane3 SB Lane4 SB Lane5 SB Lane6 SB Lane7
LTR

EB Lane7 TR
EB Lane6 L
EB Lane5
EB Lane4
EB Lane3
EB Lane2 L
EB Lane1 TR
SIGNAL

NB Lane7 NB Lane6 NB Lane5 NB Lane4 NB Lane3 NB Lane2 NB Lane1 SIGNAL

SIGNAL
WBLane1
WBLane2
WBLane3
WBLane4
WBLane5
WBLane6
WBLane7

PEAK-HOUR VOLUMES
NBLeft NBThru NBRight SBLeft SBThru SBRight EBLeft EBThru EBRight WBLeft WBThru WBRight NBEntering SBEntering EBEntering WBEntering NBLeaving SBLeaving EBLeaving WBLeaving
7 4 4 189 6 64 26 913 4 2 684 77 15 259 943 763 107 12 1106 755

PERCENT HEAVY VEHICLES
NBLeft NBThru NBRight SBLeft SBThru SBRight EBLeft EBThru EBRight WBLeft WBThru WBRight NBEntering SBEntering EBEntering WBEntering NBLeaving SBLeaving EBLeaving WBLeaving
0 0 0 0.5 0 0 0 3.4 0 0 7 2.6 0 0.4 3.3 6.6 1.9 0 2.9 6.4

PEAK-HOUR VOLUMES - PEDESTRIANS
North South East West
5 12 76 8

PEAK-HOUR VOLUMES - BICYCLES
NBLeft NBThru NBRight SBLeft SBThru SBRight EBLeft EBThru EBRight WBLeft WBThru WBRight
0 1 0 0 2 9 1 12 0 0 11 0

PEAK 15-MIN FLOWRATES
VehicleTyp NBLeft NBThru NBRight NBUTurn NBRTOR SBLeft SBThru SBRight SBUTurn SBRTOR EBLeft EBThru EBRight EBUTurn EBRTOR WBLeft WBThru WBRight WBUTurn WBRTOR Total
All Vehicle: 4 4 8 0 0 216 4 64 0 0 16 956 8 0 0 0 784 52 0 0 2116
Heavy Truc 0 0 0 0 0 0 0 0 0 0 0 28 0 0 0 0 44 0 0 0 72
Pedestrians 20 8 84 84
Bicycles 0 0 0 0 0 5 0 1 0 10

ALL-VEHICLE VOLUMES
Time Perio NB Left NB Thru NB Right NB U-Turn NB RTOR SB Left SB Thru SB Right SB U-Turn SB RTOR EB Left EB Thru EB Right EB U-Turn EB RTOR WB Left WB Thru WB Right WB U-Turn WB RTOR Total Hourly Tot
7:00 AM 0 0 1 0 0 3 0 0 0 0 0 38 1 0 0 0 57 3 0 0 103
7:05 AM 0 0 0 0 0 9 0 3 0 0 0 43 0 0 0 0 51 4 0 0 110
7:10 AM 0 0 0 0 0 11 0 1 0 0 1 33 1 0 0 0 81 6 0 0 134
7:15 AM 0 0 0 0 0 14 0 1 0 0 0 40 1 0 0 0 62 10 0 0 128
7:20 AM 0 0 0 0 0 7 0 5 0 0 0 36 1 0 0 0 72 2 0 0 123
7:25 AM 0 0 0 0 0 11 0 3 0 0 1 52 1 0 0 0 49 7 0 0 124
7:30 AM 0 0 0 0 0 8 0 3 0 0 0 48 0 0 0 0 64 3 0 0 126
7:35 AM 0 0 2 0 0 10 1 2 0 0 1 65 1 0 0 2 46 2 0 0 132
7:40 AM 0 0 2 0 0 14 0 1 0 0 2 64 0 0 0 0 52 6 0 0 141
7:45 AM 1 1 0 0 0 15 0 2 0 0 2 78 0 0 0 0 53 4 0 0 156
7:50 AM 0 0 0 0 0 13 0 5 0 0 2 78 0 0 0 0 60 8 0 0 166
7:55 AM 0 0 0 0 0 9 2 3 0 0 1 70 0 0 0 0 62 4 0 0 151
8:00 AM 0 0 0 0 0 15 0 4 0 0 2 63 2 0 0 0 57 5 0 0 148
8:05 AM 1 0 1 0 0 8 0 4 0 0 0 84 0 0 0 1 41 11 0 0 151
8:10 AM 0 1 0 0 0 19 0 6 0 0 4 77 0 0 0 0 51 8 0 0 166
8:15 AM 1 1 0 0 0 11 1 7 0 0 2 82 0 0 0 1 48 7 0 0 161
8:20 AM 0 0 1 0 0 15 1 4 0 0 6 90 0 0 0 0 57 8 0 0 182
8:25 AM 1 0 0 0 0 18 1 9 0 0 1 73 0 0 0 0 48 6 0 0 157
8:30 AM 0 0 0 0 0 20 1 7 0 0 2 72 0 0 0 0 52 8 0 0 162
8:35 AM 0 0 0 0 0 13 1 3 0 0 1 68 0 0 0 0 56 9 0 0 151
8:40 AM 0 0 1 0 0 20 1 10 0 0 1 89 1 0 0 0 64 5 0 0 192
8:45 AM 1 1 0 0 0 17 0 4 0 0 2 82 0 0 0 0 62 4 0 0 173
8:50 AM 0 0 1 0 0 17 0 2 0 0 1 68 1 0 0 0 70 4 0 0 164
8:55 AM 3 1 0 0 0 16 0 4 0 0 4 65 0 0 0 0 78 2 0 0 173

HEAVY-VEHICLE VOLUMES
Time Perio NB Left NB Thru NB Right SB Left SB Thru SB Right EB Left EB Thru EB Right WB Left WB Thru WB Right Total
7:00 AM 0 0 0 0 0 0 0 0 1 0 0 2 0 3
7:05 AM 0 0 0 0 0 0 0 0 5 0 0 2 0 7
7:10 AM 0 0 0 0 0 0 0 1 0 0 0 3 0 4
7:15 AM 0 0 0 0 0 0 0 1 0 0 0 2 1 4
7:20 AM 0 0 0 0 0 0 0 1 0 0 0 3 0 4
7:25 AM 0 0 0 0 0 0 0 1 1 0 0 5 1 8
7:30 AM 0 0 0 1 0 0 0 3 0 0 0 5 0 9
7:35 AM 0 0 0 0 0 0 0 2 0 0 0 1 0 3
7:40 AM 0 0 0 0 0 0 0 2 0 0 0 3 0 5
7:45 AM 0 0 0 0 0 0 0 1 0 0 0 6 0 7
7:50 AM 0 0 0 0 0 0 0 2 0 0 0 1 1 4
7:55 AM 0 0 0 0 0 0 0 5 0 0 0 2 1 8
8:00 AM 0 0 0 0 0 0 0 2 0 0 0 8 0 10
8:05 AM 0 0 0 0 0 0 0 6 0 0 0 2 0 8
8:10 AM 0 0 0 0 0 0 0 1 0 0 0 2 0 3
8:15 AM 0 0 0 0 0 0 0 6 0 0 0 3 0 9
8:20 AM 0 0 0 0 0 0 0 4 0 0 0 3 1 8
8:25 AM 0 0 0 0 0 0 0 0 0 0 0 5 0 5
8:30 AM 0 0 0 0 0 0 0 2 0 0 0 3 0 5
8:35 AM 0 0 0 0 0 0 0 1 0 0 0 3 1 5
8:40 AM 0 0 0 0 0 0 0 3 0 0 0 0 0 3
8:45 AM 0 0 0 0 0 0 0 2 0 0 0 4 0 6
8:50 AM 0 0 0 0 0 0 0 2 0 0 0 7 0 9
8:55 AM 0 0 0 1 0 0 0 2 0 0 0 8 0 11

QUALITY COUNTS REPORT
=====

Intersectio Coleman A Willow Rd
City/State: Menlo Park CA
QJobNo: 10756331
ClientID:
Date: 5/8/2012
Comments:

Lane Configuration:

SIGNAL	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7		SIGNAL
LTR									
EBLane7								TR	SIGNAL
EBLane6								L	WBLane1
EBLane5									WBLane2
EBLane4									WBLane3
EBLane3									WBLane4
EBLane2	L								WBLane5
EBLane1	TR								WBLane6
SIGNAL								LTR	WBLane7
	NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	SIGNAL	

PEDESTRIAN VOLUMES

Time Perio	North	South	East	West	Total
7:00 AM	0	0	0	0	0
7:05 AM	0	2	2	0	4
7:10 AM	0	0	0	2	2
7:15 AM	0	1	2	1	4
7:20 AM	0	0	5	0	5
7:25 AM	2	0	4	2	8
7:30 AM	1	1	5	0	7
7:35 AM	1	1	4	0	6
7:40 AM	3	3	6	2	14
7:45 AM	1	4	2	5	12
7:50 AM	0	0	11	1	12
7:55 AM	1	0	4	1	6
8:00 AM	0	3	10	0	13
8:05 AM	0	1	10	1	12
8:10 AM	1	0	10	1	12
8:15 AM	0	0	1	1	2
8:20 AM	0	1	8	0	9
8:25 AM	1	1	9	1	12
8:30 AM	0	1	6	1	8
8:35 AM	0	0	6	1	7
8:40 AM	1	0	4	0	5
8:45 AM	1	1	4	0	6
8:50 AM	0	4	4	2	10
8:55 AM	1	0	4	0	5

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:05 AM	0	0	0	0	0	0	0	0	2	0	0	0	2
7:10 AM	0	0	0	0	0	0	0	0	1	0	0	1	2
7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
7:20 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:25 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:35 AM	2	0	0	0	0	0	0	1	0	0	0	1	4
7:40 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	0	0	0	2	0	1	0	0	1	0	4
7:50 AM	0	0	0	1	0	1	0	1	0	0	1	0	4
7:55 AM	0	0	0	0	0	1	0	3	0	0	0	0	4
8:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	2
8:05 AM	0	0	0	0	1	0	1	1	0	0	2	0	5
8:10 AM	0	0	0	0	1	0	0	1	0	0	0	0	2
8:15 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
8:20 AM	0	0	0	0	0	1	0	0	0	0	3	0	4
8:25 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	2	0	0	0	0	3
8:35 AM	0	0	0	0	0	1	0	2	0	0	1	0	4
8:40 AM	0	0	0	0	0	2	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	2	0	0	0	0	2	0	4
8:50 AM	0	0	0	0	0	1	0	1	0	0	2	0	4
8:55 AM	0	0	0	0	0	0	0	3	0	0	0	0	3

QUALITY COUNTS REPORT
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Intersectio Gilbert Ave Willow Rd

City/State: Menlo Park CA

QCJobNo: 10756329

ClientID:

Date: 5/8/2012

Comments:

PEAK HOU 7:55 AM

PEAK HOU 8:55 AM

PEAK 15-M 8:10 AM

PEAK 15-M 8:25 AM

PHF 0.95

Lane Configuration:

SIGNAL	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7		SIGNAL
	TR	L							
EBLane7								TR	SIGNAL
EBLane6								L	WBLane1
EBLane5									WBLane2
EBLane4									WBLane3
EBLane3									WBLane4
EBLane2	L								WBLane5
EBLane1	TR								WBLane6
SIGNAL						L	TR		WBLane7
	NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	SIGNAL	

PEDESTRIAN VOLUMES

Time Perio	North	South	East	West	Total
7:00 AM	0	0	0	0	0
7:05 AM	0	0	0	1	1
7:10 AM	0	1	0	0	1
7:15 AM	0	0	0	0	0
7:20 AM	0	0	0	0	0
7:25 AM	0	0	0	0	0
7:30 AM	1	0	0	3	4
7:35 AM	0	3	2	0	5
7:40 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
7:50 AM	0	0	3	0	3
7:55 AM	1	0	3	1	5
8:00 AM	0	0	3	0	3
8:05 AM	0	0	3	0	3
8:10 AM	1	0	2	1	4
8:15 AM	0	0	0	2	2
8:20 AM	1	1	3	0	5
8:25 AM	1	0	0	0	1
8:30 AM	1	0	0	2	3
8:35 AM	0	0	0	0	0
8:40 AM	3	0	1	0	4
8:45 AM	0	1	2	0	3
8:50 AM	0	0	0	0	0
8:55 AM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:05 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
7:10 AM	0	0	0	0	0	0	0	0	1	0	0	1	2
7:15 AM	1	0	0	0	0	0	0	0	1	0	1	0	3
7:20 AM	0	0	0	0	0	0	0	0	3	0	0	1	4
7:25 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	3	0	0	0	0	0	1	0	0	0	0	4
7:35 AM	0	1	0	0	0	0	0	1	0	0	4	1	7
7:40 AM	0	15	0	0	0	0	0	1	0	0	2	0	18
7:45 AM	0	5	0	0	1	0	0	1	0	0	4	0	11
7:50 AM	0	1	0	0	0	0	0	1	0	0	2	0	4
7:55 AM	1	1	0	0	0	0	0	1	0	0	2	0	5
8:00 AM	0	0	0	0	0	1	0	1	0	0	2	0	4
8:05 AM	0	2	0	0	3	0	0	2	0	0	1	0	8
8:10 AM	1	2	0	0	0	1	0	1	0	0	1	0	6
8:15 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
8:20 AM	0	1	0	0	1	0	0	0	0	0	4	0	6
8:25 AM	0	3	0	0	3	0	0	0	0	0	0	0	6
8:30 AM	0	1	0	0	0	0	0	1	0	0	1	0	3
8:35 AM	0	0	0	0	1	0	1	3	0	0	2	0	7
8:40 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	5
8:50 AM	0	1	0	0	0	0	0	1	0	0	3	0	5
8:55 AM	1	0	0	0	0	0	0	0	1	0	1	0	3

QUALITY COUNTS REPORT
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Intersectio Middlefielc Willow Rd
City/State: Menlo Park CA
QJobNo: 10756327

ClientID:
Date: 5/8/2012
Comments:

PEAK HOU 8:00 AM
PEAK HOU 9:00 AM
PEAK 15-M 8:35 AM
PEAK 15-M 8:50 AM
PHF 0.94

Lane Configuration:

SIGNAL SBLane1 SBLane2 SBLane3 SBLane4 SBLane5 SBLane6 SBLane7
TR LT L
EBLane7
EBLane6
EBLane5
EBLane4
EBLane3 L
EBLane2 T
EBLane1 R
SIGNAL
NB Lane7 NB Lane6 NB Lane5 NB Lane4 NB Lane3 NB Lane2 NB Lane1 SIGNAL

SIGNAL
WBLane1
WBLane2
WBLane3
WBLane4
WBLane5
WBLane6
WBLane7

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
75	411	290	410	422	15	21	173	119	386	64	349	776	847	313	799	784	930	870	151

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEntering	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0	1.5	3.4	4.4	4.5	0	4.8	1.2	4.2	2.1	7.8	8.3	2.1	4.4	2.6	5.3	4.6	3.4	3.4	3.3

PEAK-HOUR VOLUMES - PEDESTRIANS

North	South	East	West
8	11	7	3

PEAK-HOUR VOLUMES - BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
4	10	1	1	4	8	14	12	5	2	24	5

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBUTurn	NBRTOR	SBLeft	SBThru	SBRight	SBUTurn	SBRTOR	EBLeft	EBThru	EBRight	EBUTurn	EBRTOR	WBLeft	WBThru	WBRight	WBUTurn	WBRTOR	Total
All Vehicle	92	536	324	4	0	380	440	8	12	0	36	196	96	0	0	416	52	324	0	0	2916
Heavy Truc	0	16	8			8	32	0			4	4	4			12	0	12			100
Pedestrians		12					8					8					8				36
Bicycles	2	4	0			0	2	1			5	2	0			0	5	2			23

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Tot
7:00 AM	2	12	10	0	0	19	9	0	0	0	0	8	3	0	0	29	7	25	0	0	124	
7:05 AM	0	8	23	0	0	12	14	0	0	0	0	5	1	0	0	18	4	20	0	0	105	
7:10 AM	3	13	10	0	0	10	10	1	0	0	0	8	0	0	0	33	7	33	0	0	128	
7:15 AM	3	23	10	0	0	20	10	1	0	0	0	3	7	0	0	47	6	28	0	0	158	
7:20 AM	5	22	11	0	0	19	10	1	0	0	0	6	2	0	0	21	3	39	0	0	139	
7:25 AM	3	23	9	1	0	24	23	0	0	0	0	13	6	0	0	33	2	31	0	0	168	
7:30 AM	4	28	18	0	0	15	12	1	0	0	0	13	9	0	0	23	3	42	0	0	168	
7:35 AM	7	34	23	0	0	27	16	0	0	0	1	5	5	0	0	18	6	34	0	0	176	
7:40 AM	2	15	20	0	0	32	19	1	0	0	1	18	5	0	0	28	4	32	0	0	177	
7:45 AM	6	33	33	0	0	22	16	2	0	0	3	12	12	0	0	38	7	31	0	0	215	
7:50 AM	8	36	19	0	0	46	51	0	0	0	2	7	15	0	0	18	1	35	0	0	238	
7:55 AM	9	24	18	0	0	33	20	0	0	0	3	18	10	0	0	35	8	47	0	0	225	2021
8:00 AM	2	23	24	0	0	23	24	2	0	0	1	7	12	0	0	34	7	28	0	0	187	2084
8:05 AM	3	45	17	0	0	63	31	2	0	0	0	15	14	0	0	21	3	32	0	0	246	2225
8:10 AM	5	31	27	0	0	35	33	1	0	0	1	15	9	0	0	28	6	34	0	0	225	2322
8:15 AM	3	32	20	0	0	36	29	3	0	0	2	18	14	0	0	35	4	25	0	0	221	2385
8:20 AM	10	28	27	0	0	45	36	2	0	0	2	20	11	0	0	24	5	26	0	0	236	2482
8:25 AM	11	46	23	1	0	17	31	1	0	0	1	8	10	0	0	32	8	33	0	0	222	2536
8:30 AM	4	17	18	0	0	35	43	1	0	0	2	15	8	0	0	28	6	28	0	0	205	2573
8:35 AM	6	54	26	1	0	24	29	1	0	0	4	16	12	0	0	30	5	31	0	0	239	2636
8:40 AM	9	25	26	0	0	44	45	0	2	0	3	20	8	0	0	41	2	24	0	0	249	2708
8:45 AM	8	55	29	0	0	27	36	1	1	0	2	13	4	0	0	33	6	26	0	0	241	2734
8:50 AM	4	20	26	1	0	21	34	1	0	0	2	16	9	0	0	44	6	32	0	0	216	2712
8:55 AM	7	35	27	0	0	37	51	0	0	0	1	10	8	0	0	36	6	30	0	0	248	2735

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	1	1	0	0	0	0	0	2	1	2	7
7:05 AM	0	0	4	0	0	0	0	0	0	0	0	0	4
7:10 AM	0	2	1	0	0	0	0	0	0	1	0	0	4
7:15 AM	0	0	0	1	1	0	0	0	0	0	0	1	3
7:20 AM	0	0	0	1	0	0	0	1	0	1	0	5	8
7:25 AM	0	1	1	0	0	0	0	2	0	0	0	3	7
7:30 AM	0	2	2	1	1	0	0	1	0	1	0	3	11
7:35 AM	0	1	1	3	0	0	0	0	0	1	1	7	
7:40 AM	0	0	1	2	2	0	0	0	0	0	0	5	
7:45 AM	0	1	1	0	0	0	0	1	0	3	0	2	8
7:50 AM	0	0	1	1	0	0	0	0	0	0	0	4	6
7:55 AM	0	0	2	1	0	0	0	1	0	1	1	0	6
8:00 AM	0	0	2	1	2	0	0	0	0	0	1	2	8
8:05 AM	0	1	0	4	0	0	0	1	0	0	1	5	12
8:10 AM	0	0	2	0	1	0	0	0	1	0	1	4	9
8:15 AM	0	0	3	3	0	0	0	0	1	1	0	1	9
8:20 AM	0	0	0	2	2	0	0	0	2	0	0	1	7
8:25 AM	0	1	0	0	2	0	0	0	0	0	1	5	9
8:30 AM	0	0	0	1	3	0	0	0	0	0	0	1	5
8:35 AM	0	2	0	0	3	0	1	1	2	0	1	11	
8:40 AM	0	1	2	1	2	0	0	0	0	0	0	1	7
8:45 AM	0	1	0	1	3	0	0	0	0	1	0	1	7
8:50 AM	0	0	1	2	0	0	0	0	0	1	0	2	6
8:55 AM	0	0	0	3	1	0	0	0	0	3	1	5	13

QUALITY COUNTS REPORT

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Intersectio Middlefiefcl Willow Rd

City/State: Menlo Park CA

QCJobNo: 10756327

ClientID:

Date: 5/8/2012

Comments:

PEAK HOU: 8:00 AM

PEAK HOU: 9:00 AM

PEAK 15-M: 8:35 AM

PEAK 15-M: 8:50 AM

PHF 0.94

Lane Configuration:

SIGNAL SB Lane1 SB Lane2 SB Lane3 SB Lane4 SB Lane5 SB Lane6 SB Lane7
 TR LT L
 EBLane7
 EBLane6
 EBLane5
 EBLane4
 EBLane3 L
 EBLane2 T
 EBLane1 R
 SIGNAL
 NBLane7 NBLane6 NBLane5 NBLane4 NBLane3 NBLane2 NBLane1 SIGNAL

SIGNAL
 WBLane1
 WBLane2
 WBLane3
 WBLane4
 WBLane5
 WBLane6
 WBLane7

PEDESTRIAN VOLUMES

Time Perio	North	South	East	West	Total
7:00 AM	0	1	0	1	2
7:05 AM	0	4	0	0	4
7:10 AM	0	1	0	0	1
7:15 AM	2	1	0	0	3
7:20 AM	0	1	0	0	1
7:25 AM	0	2	0	3	5
7:30 AM	0	2	0	0	2
7:35 AM	0	1	0	0	1
7:40 AM	0	3	0	1	4
7:45 AM	2	0	0	0	2
7:50 AM	2	1	0	0	3
7:55 AM	3	1	1	0	5
8:00 AM	0	0	0	0	0
8:05 AM	0	1	0	0	1
8:10 AM	0	1	0	0	1
8:15 AM	2	2	3	0	7
8:20 AM	0	1	0	0	1
8:25 AM	1	0	0	0	1
8:30 AM	0	2	0	0	2
8:35 AM	0	1	1	0	2
8:40 AM	1	1	0	2	4
8:45 AM	1	1	1	0	3
8:50 AM	3	0	1	1	5
8:55 AM	0	1	1	0	2

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
7:00 AM	0	0	0	0	0	0	1	2	1	0	0	0	4
7:05 AM	0	0	0	0	3	1	0	1	0	0	1	0	6
7:10 AM	0	2	1	0	1	1	0	0	0	0	1	0	6
7:15 AM	0	3	0	0	0	3	1	1	0	0	2	1	11
7:20 AM	2	1	0	0	1	0	0	2	0	0	1	1	8
7:25 AM	0	0	0	0	0	0	1	0	1	1	0	1	4
7:30 AM	1	3	0	0	0	0	0	1	0	0	1	0	6
7:35 AM	0	2	0	0	0	3	0	2	0	0	2	2	11
7:40 AM	0	2	0	0	0	2	0	1	0	0	3	0	8
7:45 AM	0	1	0	0	0	1	0	0	0	0	6	0	8
7:50 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
7:55 AM	0	0	1	0	1	0	0	1	0	0	2	0	5
8:00 AM	0	0	0	0	0	0	1	0	0	0	1	0	2
8:05 AM	0	0	1	0	0	1	0	1	0	0	2	0	5
8:10 AM	0	1	0	0	0	0	0	1	5	0	1	1	9
8:15 AM	0	2	0	0	0	1	1	2	0	0	2	0	8
8:20 AM	0	0	0	0	0	0	2	0	0	0	2	0	4
8:25 AM	1	3	0	0	1	2	1	0	0	0	2	1	11
8:30 AM	0	0	0	1	0	3	3	2	0	0	1	1	11
8:35 AM	1	2	0	0	0	0	1	0	0	0	0	1	5
8:40 AM	1	0	0	0	0	0	1	2	0	0	2	0	6
8:45 AM	0	2	0	0	2	1	3	0	0	0	3	1	12
8:50 AM	0	0	0	0	1	0	1	1	0	1	6	0	10
8:55 AM	1	0	0	0	0	0	0	3	0	1	2	0	7

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@altdtraffic.com

File Name : 13-7650-006 Menalto Avenue-Durham Street-Donahoe Str
Date : 11/6/2013

Unshifted Count = All Vehicles

	Menalto Avenue Southbound					Donahoe Street Westbound					Menalto Avenue Northbound					Durham Street Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	2	2	0	5	8	15	0	0	23	9	2	3	0	14	0	0	1	0	1	43	0
07:15	0	10	3	0	13	2	10	0	0	12	5	9	2	0	16	2	0	4	0	6	47	0
07:30	0	13	4	0	17	7	4	3	0	14	13	8	1	0	22	0	0	7	0	7	60	0
07:45	0	11	3	0	14	7	4	1	0	12	5	3	1	0	9	0	2	7	0	9	44	0
Total	1	36	12	0	49	24	33	4	0	61	32	22	7	0	61	2	2	19	0	23	194	0
08:00	1	19	2	0	22	7	4	2	0	13	14	8	1	0	23	0	2	5	0	7	65	0
08:15	0	15	2	0	17	5	4	0	0	9	17	9	3	0	29	0	1	7	0	8	63	0
08:30	1	10	1	0	12	1	3	1	0	5	8	8	5	0	21	0	1	8	0	9	47	0
08:45	1	15	3	0	19	2	4	1	0	7	14	9	1	0	24	0	1	5	0	6	56	0
Total	3	59	8	0	70	15	15	4	0	34	53	34	10	0	97	0	5	25	0	30	231	0
Grand Total	4	95	20	0	119	39	48	8	0	95	85	56	17	0	158	2	7	44	0	53	425	0
Apprch %	3.4%	79.8%	16.8%	0.0%		41.1%	50.5%	8.4%	0.0%		53.8%	35.4%	10.8%	0.0%		3.8%	13.2%	83.0%	0.0%			
Total %	0.9%	22.4%	4.7%	0.0%	28.0%	9.2%	11.3%	1.9%	0.0%	22.4%	20.0%	13.2%	4.0%	0.0%	37.2%	0.5%	1.6%	10.4%	0.0%	12.5%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Donahoe Street Westbound					Menalto Avenue Northbound					Durham Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	13	4	0	17	7	4	3	0	14	13	8	1	0	22	0	0	7	0	7	60
07:45	0	11	3	0	14	7	4	1	0	12	5	3	1	0	9	0	2	7	0	9	44
08:00	1	19	2	0	22	7	4	2	0	13	14	8	1	0	23	0	2	5	0	7	65
08:15	0	15	2	0	17	5	4	0	0	9	17	9	3	0	29	0	1	7	0	8	63
Total Volume	1	58	11	0	70	26	16	6	0	48	49	28	6	0	83	0	5	26	0	31	232
% App Total	1.4%	82.9%	15.7%	0.0%		54.2%	33.3%	12.5%	0.0%		59.0%	33.7%	7.2%	0.0%		0.0%	16.1%	83.9%	0.0%		
PHF	.250	.763	.688	.000	.795	.929	1.000	.500	.000	.857	.721	.778	.500	.000	.716	.000	.625	.929	.000	.861	.892

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldtraffic.com

File Name : 13-7650-006 Menalto Avenue-Durham Street-Donahoe Str
Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Menalto Avenue Southbound					Donahoe Street Westbound					Menalto Avenue Northbound					Durham Street Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	0	1	4
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	3
07:30	0	1	0	0	1	1	0	0	0	1	0	0	0	1	0	0	0	0	3	0	2	4
07:45	0	3	0	1	3	1	0	0	0	1	0	0	0	5	0	0	0	0	2	0	4	8
Total	0	4	0	2	4	2	1	0	0	3	0	0	0	8	0	0	0	0	9	0	7	19
08:00	0	0	0	2	0	0	1	0	0	1	0	0	0	1	0	0	0	0	8	0	1	11
08:15	0	0	0	1	0	1	0	0	4	1	1	0	0	0	1	0	0	0	0	0	2	5
08:30	0	0	0	3	0	2	1	0	0	3	1	0	0	0	1	0	0	0	3	0	4	6
08:45	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	1	1	2
Total	0	0	0	6	0	3	2	0	5	5	2	0	0	2	2	0	0	1	11	1	8	24
Grand Total	0	4	0	8	4	5	3	0	5	8	2	0	0	10	2	0	0	1	20	1	15	43
Apprch %	0.0%	100.0%	0.0%			62.5%	37.5%	0.0%			100.0%	0.0%	0.0%			0.0%	0.0%	100.0%				
Total %	0.0%	26.7%	0.0%		26.7%	33.3%	20.0%	0.0%		53.3%	13.3%	0.0%	0.0%		13.3%	0.0%	0.0%	6.7%		6.7%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Donahoe Street Westbound					Menalto Avenue Northbound					Durham Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	1	0		1	1	0	0		1	0	0	0		0	0	0	0		0	2
07:45	0	3	0		3	1	0	0		1	0	0	0		0	0	0	0		0	4
08:00	0	0	0		0	0	1	0		1	0	0	0		0	0	0	0		0	1
08:15	0	0	0		0	1	0	0		1	1	0	0		1	0	0	0		0	2
Total Volume	0	4	0		4	3	1	0		4	1	0	0		1	0	0	0		0	9
% App Total	0.0%	100.0%	0.0%			75.0%	25.0%	0.0%			100.0%	0.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.000	.333	.000		.333	.750	.250	.000		1.000	.250	.000	.000		.250	.000	.000	.000		.000	.563

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldrtraffic.com

File Name : 13-7650-007 Menalto Avenue-O'Keefe Street.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Menalto Avenue Southbound					O'Keefe Street Westbound					Menalto Avenue Northbound					O'Keefe Street Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	4	2	0	9	5	20	8	0	33	2	6	2	0	10	0	4	0	0	4	56	0
07:15	4	13	0	0	17	7	21	11	0	39	2	7	4	0	13	0	0	2	0	2	71	0
07:30	10	13	5	0	28	9	26	13	0	48	2	7	2	0	11	2	5	2	0	9	96	0
07:45	4	19	0	0	23	9	17	5	0	31	1	3	4	0	8	0	4	1	0	5	67	0
Total	21	49	7	0	77	30	84	37	0	151	7	23	12	0	42	2	13	5	0	20	290	0
08:00	4	24	3	0	31	5	28	8	0	41	3	16	6	0	25	0	9	6	0	15	112	0
08:15	1	28	0	0	29	4	39	9	0	52	2	13	6	0	21	2	11	1	0	14	116	0
08:30	5	13	1	0	19	5	10	2	0	17	4	19	7	0	30	1	11	1	0	13	79	0
08:45	7	13	2	0	22	5	15	8	0	28	8	14	4	0	26	1	16	2	0	19	95	0
Total	17	78	6	0	101	19	92	27	0	138	17	62	23	0	102	4	47	10	0	61	402	0
Grand Total	38	127	13	0	178	49	176	64	0	289	24	85	35	0	144	6	60	15	0	81	692	0
Apprch %	21.3%	71.3%	7.3%	0.0%		17.0%	60.9%	22.1%	0.0%		16.7%	59.0%	24.3%	0.0%		7.4%	74.1%	18.5%	0.0%			
Total %	5.5%	18.4%	1.9%	0.0%	25.7%	7.1%	25.4%	9.2%	0.0%	41.8%	3.5%	12.3%	5.1%	0.0%	20.8%	0.9%	8.7%	2.2%	0.0%	11.7%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					O'Keefe Street Westbound					Menalto Avenue Northbound					O'Keefe Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	4	24	3	0	31	5	28	8	0	41	3	16	6	0	25	0	9	6	0	15	112
08:15	1	28	0	0	29	4	39	9	0	52	2	13	6	0	21	2	11	1	0	14	116
08:30	5	13	1	0	19	5	10	2	0	17	4	19	7	0	30	1	11	1	0	13	79
08:45	7	13	2	0	22	5	15	8	0	28	8	14	4	0	26	1	16	2	0	19	95
Total Volume	17	78	6	0	101	19	92	27	0	138	17	62	23	0	102	4	47	10	0	61	402
% App Total	16.8%	77.2%	5.9%	0.0%		13.8%	66.7%	19.6%	0.0%		16.7%	60.8%	22.5%	0.0%		6.6%	77.0%	16.4%	0.0%		
PHF	.607	.696	.500	.000	.815	.950	.590	.750	.000	.663	.531	.816	.821	.000	.850	.500	.734	.417	.000	.803	.866

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-007 Menalto Avenue-O'Keefe Street.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Menalto Avenue Southbound					O'Keefe Street Westbound					Menalto Avenue Northbound					O'Keefe Street Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	0	0	1	0	1	2	0	0	3	0	0	0	3	0	0	0	0	5	0	3	9
07:15	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	6	0	0	9
07:30	0	2	0	1	2	0	1	0	0	1	1	0	0	2	1	0	0	0	3	0	4	6
07:45	0	3	0	5	3	1	0	0	1	1	0	0	0	8	0	0	0	0	6	0	4	20
Total	0	5	0	8	5	2	3	0	1	5	1	0	0	15	1	0	0	0	20	0	11	44
08:00	0	0	0	10	0	2	4	0	3	6	0	0	0	19	0	0	0	0	6	0	6	38
08:15	0	1	0	7	1	4	1	1	0	6	0	0	0	10	0	0	0	0	5	0	7	22
08:30	0	2	0	5	2	4	0	1	0	5	0	0	0	3	0	0	0	0	4	0	7	12
08:45	0	1	0	4	1	3	2	0	1	5	0	0	1	2	1	0	0	0	3	0	7	10
Total	0	4	0	26	4	13	7	2	4	22	0	0	1	34	1	0	0	0	18	0	27	82
Grand Total	0	9	0	34	9	15	10	2	5	27	1	0	1	49	2	0	0	0	38	0	38	126
Apprch %	0.0%	100.0%	0.0%			55.6%	37.0%	7.4%			50.0%	0.0%	50.0%			0.0%	0.0%	0.0%				
Total %	0.0%	23.7%	0.0%		23.7%	39.5%	26.3%	5.3%		71.1%	2.6%	0.0%	2.6%		5.3%	0.0%	0.0%	0.0%		0.0%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					O'Keefe Street Westbound					Menalto Avenue Northbound					O'Keefe Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	0	0	0		0	2	4	0		6	0	0	0		0	0	0	0		0	6
08:15	0	1	0		1	4	1	1		6	0	0	0		0	0	0	0		0	7
08:30	0	2	0		2	4	0	1		5	0	0	0		0	0	0	0		0	7
08:45	0	1	0		1	3	2	0		5	0	0	1		1	0	0	0		0	7
Total Volume	0	4	0		4	13	7	2		22	0	0	1		1	0	0	0		0	27
% App Total	0.0%	100.0%	0.0%			59.1%	31.8%	9.1%			0.0%	0.0%	100.0%			0.0%	0.0%	0.0%			
PHF	.000	.500	.000		.500	.813	.438	.500		.917	.000	.000	.250		.250	.000	.000	.000		.000	.964

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldrtraffic.com

File Name : 13-7650-008 Menalto Avenue-O'Connor Street.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Menalto Avenue Southbound					O'Connor Street Westbound					Menalto Avenue Northbound					O'Connor Street Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	2	7	0	0	9	7	4	5	0	16	1	5	4	0	10	0	0	0	0	0	35	0
07:15	3	18	0	0	21	7	10	5	0	22	0	8	6	0	14	0	3	0	0	3	60	0
07:30	3	17	3	0	23	5	21	5	0	31	0	5	3	0	8	1	7	0	0	8	70	0
07:45	4	24	2	0	30	15	47	2	0	64	2	7	19	0	28	1	19	1	0	21	143	0
Total	12	66	5	0	83	34	82	17	0	133	3	25	32	0	60	2	29	1	0	32	308	0
08:00	22	16	1	0	39	18	46	12	0	76	1	8	18	0	27	3	30	1	0	34	176	0
08:15	14	16	4	0	34	19	68	11	0	98	0	5	17	0	22	5	39	4	0	48	202	0
08:30	7	14	0	0	21	11	16	15	0	42	0	10	15	0	25	5	23	3	0	31	119	0
08:45	5	15	0	0	20	12	5	14	0	31	1	9	9	0	19	2	4	2	0	8	78	0
Total	48	61	5	0	114	60	135	52	0	247	2	32	59	0	93	15	96	10	0	121	575	0
Grand Total	60	127	10	0	197	94	217	69	0	380	5	57	91	0	153	17	125	11	0	153	883	0
Apprch %	30.5%	64.5%	5.1%	0.0%		24.7%	57.1%	18.2%	0.0%		3.3%	37.3%	59.5%	0.0%		11.1%	81.7%	7.2%	0.0%			
Total %	6.8%	14.4%	1.1%	0.0%	22.3%	10.6%	24.6%	7.8%	0.0%	43.0%	0.6%	6.5%	10.3%	0.0%	17.3%	1.9%	14.2%	1.2%	0.0%	17.3%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					O'Connor Street Westbound					Menalto Avenue Northbound					O'Connor Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	4	24	2	0	30	15	47	2	0	64	2	7	19	0	28	1	19	1	0	21	143
08:00	22	16	1	0	39	18	46	12	0	76	1	8	18	0	27	3	30	1	0	34	176
08:15	14	16	4	0	34	19	68	11	0	98	0	5	17	0	22	5	39	4	0	48	202
08:30	7	14	0	0	21	11	16	15	0	42	0	10	15	0	25	5	23	3	0	31	119
Total Volume	47	70	7	0	124	63	177	40	0	280	3	30	69	0	102	14	111	9	0	134	640
% App Total	37.9%	56.5%	5.6%	0.0%		22.5%	63.2%	14.3%	0.0%		2.9%	29.4%	67.6%	0.0%		10.4%	82.8%	6.7%	0.0%		
PHF	.534	.729	.438	.000	.795	.829	.651	.667	.000	.714	.375	.750	.908	.000	.911	.700	.712	.563	.000	.698	.792

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-008 Menalto Avenue-O'Connor Street.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Menalto Avenue Southbound					O'Connor Street Westbound					Menalto Avenue Northbound					O'Connor Street Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	1	0	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	1	0	1	7
07:15	0	0	0	5	0	0	1	0	0	1	0	0	1	3	1	0	0	0	2	0	2	10
07:30	0	2	1	4	3	2	4	0	1	6	0	0	0	7	0	0	0	0	5	0	9	17
07:45	0	4	0	2	4	1	0	0	0	1	0	0	0	5	0	0	0	0	4	0	5	11
Total	0	7	1	12	8	3	5	0	1	8	0	0	1	20	1	0	0	0	12	0	17	45
08:00	0	3	0	5	3	0	2	0	0	2	0	0	0	0	0	0	0	0	4	0	5	9
08:15	1	3	0	1	4	1	4	0	0	5	0	0	0	4	0	0	0	0	2	0	9	7
08:30	0	4	1	0	5	0	1	0	0	1	2	0	1	5	3	0	0	0	5	0	9	10
08:45	0	4	0	1	4	1	0	0	0	1	0	1	0	0	1	0	0	0	7	0	6	8
Total	1	14	1	7	16	2	7	0	0	9	2	1	1	9	4	0	0	0	18	0	29	34
Grand Total	1	21	2	19	24	5	12	0	1	17	2	1	2	29	5	0	0	0	30	0	46	79
Apprch %	4.2%	87.5%	8.3%			29.4%	70.6%	0.0%			40.0%	20.0%	40.0%			0.0%	0.0%	0.0%				
Total %	2.2%	45.7%	4.3%		52.2%	10.9%	26.1%	0.0%		37.0%	4.3%	2.2%	4.3%		10.9%	0.0%	0.0%	0.0%		0.0%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					O'Connor Street Westbound					Menalto Avenue Northbound					O'Connor Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	4	0		4	1	0	0		1	0	0	0		0	0	0	0		0	5
08:00	0	3	0		3	0	2	0		2	0	0	0		0	0	0	0		0	5
08:15	1	3	0		4	1	4	0		5	0	0	0		0	0	0	0		0	9
08:30	0	4	1		5	0	1	0		1	2	0	1		3	0	0	0		0	9
Total Volume	1	14	1		16	2	7	0		9	2	0	1		3	0	0	0		0	28
% App Total	6.3%	87.5%	6.3%			22.2%	77.8%	0.0%			66.7%	0.0%	33.3%			0.0%	0.0%	0.0%			
PHF	.250	.875	.250		.800	.500	.438	.000		.450	.250	.000	.250		.250	.000	.000	.000		.000	.778

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldtraffic.com

File Name : 13-7650-010 Menalto Avenue-Elm Street.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Menalto Avenue Southbound					Driveway Westbound					Menalto Avenue Northbound					Elm Street Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	14	1	0	15	0	0	0	0	0	1	9	0	0	10	1	0	1	0	2	27	0
07:15	0	29	1	0	30	0	0	0	0	0	2	12	0	0	14	1	0	2	0	3	47	0
07:30	0	21	1	0	22	0	0	0	0	0	3	7	0	0	10	0	0	2	0	2	34	0
07:45	0	40	2	0	42	0	0	0	0	0	5	21	0	0	26	4	0	10	0	14	82	0
Total	0	104	5	0	109	0	0	0	0	0	11	49	0	0	60	6	0	15	0	21	190	0
08:00	0	34	3	0	37	0	0	0	0	0	1	24	0	0	25	1	0	9	0	10	72	0
08:15	0	41	0	0	41	0	0	0	0	0	5	20	0	0	25	0	0	1	0	1	67	0
08:30	0	29	1	0	30	0	0	0	0	0	0	24	0	0	24	2	0	2	0	4	58	0
08:45	0	26	1	0	27	0	0	0	0	0	0	19	0	0	19	0	0	2	0	2	48	0
Total	0	130	5	0	135	0	0	0	0	0	6	87	0	0	93	3	0	14	0	17	245	0
Grand Total	0	234	10	0	244	0	0	0	0	0	17	136	0	0	153	9	0	29	0	38	435	0
Apprch %	0.0%	95.9%	4.1%	0.0%		0.0%	0.0%	0.0%	0.0%		11.1%	88.9%	0.0%	0.0%		23.7%	0.0%	76.3%	0.0%			
Total %	0.0%	53.8%	2.3%	0.0%	56.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	31.3%	0.0%	0.0%	35.2%	2.1%	0.0%	6.7%	0.0%	8.7%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Driveway Westbound					Menalto Avenue Northbound					Elm Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	40	2	0	42	0	0	0	0	0	5	21	0	0	26	4	0	10	0	14	82
08:00	0	34	3	0	37	0	0	0	0	0	1	24	0	0	25	1	0	9	0	10	72
08:15	0	41	0	0	41	0	0	0	0	0	5	20	0	0	25	0	0	1	0	1	67
08:30	0	29	1	0	30	0	0	0	0	0	0	24	0	0	24	2	0	2	0	4	58
Total Volume	0	144	6	0	150	0	0	0	0	0	11	89	0	0	100	7	0	22	0	29	279
% App Total	0.0%	96.0%	4.0%	0.0%		0.0%	0.0%	0.0%	0.0%		11.0%	89.0%	0.0%	0.0%		24.1%	0.0%	75.9%	0.0%		
PHF	.000	.878	.500	.000	.893	.000	.000	.000	.000	.000	.550	.927	.000	.000	.962	.438	.000	.550	.000	.518	.851

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-010 Menalto Avenue-Elm Street.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Menalto Avenue Southbound					Driveway Westbound					Menalto Avenue Northbound					Elm Street Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	1	0	0	1	0	0	0	2	0	1	0	0	1	1	0	0	0	1	0	2	4
07:15	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	2	0	1	3
07:30	0	4	0	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	7	0	4	9
07:45	0	5	0	1	5	0	0	0	1	0	4	0	0	0	4	0	0	2	1	2	11	3
Total	0	10	0	1	10	0	0	0	5	0	5	1	0	2	6	0	0	2	11	2	18	19
08:00	0	2	1	1	3	1	0	0	2	1	3	0	0	1	3	0	0	0	4	0	7	8
08:15	0	3	1	0	4	0	0	0	0	0	0	2	0	1	2	0	0	1	3	1	7	4
08:30	0	4	0	1	4	0	0	0	1	0	2	1	0	0	3	0	0	0	4	0	7	6
08:45	0	4	1	0	5	0	0	0	0	0	4	1	0	1	5	0	0	0	7	0	10	8
Total	0	13	3	2	16	1	0	0	3	1	9	4	0	3	13	0	0	1	18	1	31	26
Grand Total	0	23	3	3	26	1	0	0	8	1	14	5	0	5	19	0	0	3	29	3	49	45
Apprch %	0.0%	88.5%	11.5%			100.0%	0.0%	0.0%			73.7%	26.3%	0.0%			0.0%	0.0%	100.0%				
Total %	0.0%	46.9%	6.1%		53.1%	2.0%	0.0%	0.0%		2.0%	28.6%	10.2%	0.0%		38.8%	0.0%	0.0%	6.1%		6.1%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Driveway Westbound					Menalto Avenue Northbound					Elm Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	5	0		5	0	0	0		0	4	0	0		4	0	0	2		2	11
08:00	0	2	1		3	1	0	0		1	3	0	0		3	0	0	0		0	7
08:15	0	3	1		4	0	0	0		0	0	2	0		2	0	0	1		1	7
08:30	0	4	0		4	0	0	0		0	2	1	0		3	0	0	0		0	7
Total Volume	0	14	2		16	1	0	0		1	9	3	0		12	0	0	3		3	32
% App Total	0.0%	87.5%	12.5%			100.0%	0.0%	0.0%			75.0%	25.0%	0.0%			0.0%	0.0%	100.0%			
PHF	.000	.700	.500		.800	.250	.000	.000		.250	.563	.375	.000		.750	.000	.000	.375		.375	.727

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldrtraffic.com

File Name : 13-7650-009 Menalto Avenue-Oak Court.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Menalto Avenue Southbound					Oak Court Westbound					Menalto Avenue Northbound					La Hacienda Parking Spaces Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	1	12	3	0	16	1	1	0	0	2	3	10	0	0	13	4	0	1	0	5	36	0
07:15	0	22	7	0	29	1	0	0	0	1	2	11	0	0	13	2	0	7	0	9	52	0
07:30	0	22	2	0	24	5	0	1	0	6	4	8	1	0	13	3	0	4	0	7	50	0
07:45	2	44	1	0	47	3	0	0	0	3	0	22	0	0	22	0	0	4	0	4	76	0
Total	3	100	13	0	116	10	1	1	0	12	9	51	1	0	61	9	0	16	0	25	214	0
08:00	0	40	0	0	40	4	0	1	0	5	3	23	1	0	27	2	0	0	0	2	74	0
08:15	1	41	3	0	45	3	0	0	0	3	2	25	1	0	28	0	0	4	0	4	80	0
08:30	1	25	3	0	29	0	0	2	0	2	2	16	1	0	19	4	0	2	0	6	56	0
08:45	0	31	0	0	31	1	0	0	0	1	3	14	0	0	17	2	0	1	0	3	52	0
Total	2	137	6	0	145	8	0	3	0	11	10	78	3	0	91	8	0	7	0	15	262	0
Grand Total	5	237	19	0	261	18	1	4	0	23	19	129	4	0	152	17	0	23	0	40	476	0
Apprch %	1.9%	90.8%	7.3%	0.0%		78.3%	4.3%	17.4%	0.0%		12.5%	84.9%	2.6%	0.0%		42.5%	0.0%	57.5%	0.0%			
Total %	1.1%	49.8%	4.0%	0.0%	54.8%	3.8%	0.2%	0.8%	0.0%	4.8%	4.0%	27.1%	0.8%	0.0%	31.9%	3.6%	0.0%	4.8%	0.0%	8.4%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Oak Court Westbound					Menalto Avenue Northbound					La Hacienda Parking Spaces Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	2	44	1	0	47	3	0	0	0	3	0	22	0	0	22	0	0	4	0	4	76
08:00	0	40	0	0	40	4	0	1	0	5	3	23	1	0	27	2	0	0	0	2	74
08:15	1	41	3	0	45	3	0	0	0	3	2	25	1	0	28	0	0	4	0	4	80
08:30	1	25	3	0	29	0	0	2	0	2	2	16	1	0	19	4	0	2	0	6	56
Total Volume	4	150	7	0	161	10	0	3	0	13	7	86	3	0	96	6	0	10	0	16	286
% App Total	2.5%	93.2%	4.3%	0.0%		76.9%	0.0%	23.1%	0.0%		7.3%	89.6%	3.1%	0.0%		37.5%	0.0%	62.5%	0.0%		
PHF	.500	.852	.583	.000	.856	.625	.000	.375	.000	.650	.583	.860	.750	.000	.857	.375	.000	.625	.000	.667	.894

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-009 Menalto Avenue-Oak Court.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Menalto Avenue Southbound					Oak Court Westbound					Menalto Avenue Northbound					La Hacienda Parking Spaces Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	1	0	0	1	0	0	1	2	1	0	0	1	0	1	0	0	0	5	0	3	7
07:15	0	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0	0	1	12	1	3	13
07:30	0	4	0	0	4	4	0	0	5	4	0	0	1	7	1	0	0	0	9	0	9	21
07:45	0	7	0	2	7	2	0	2	6	4	0	0	2	7	2	0	0	0	2	0	13	17
Total	0	12	0	2	12	7	0	3	14	10	1	0	4	14	5	0	0	1	28	1	28	58
08:00	0	3	0	0	3	0	0	3	0	3	0	1	0	0	1	0	0	0	1	0	7	1
08:15	0	4	0	0	4	1	0	4	0	5	0	0	0	0	0	0	0	0	2	0	9	2
08:30	0	4	0	0	4	0	0	0	0	0	0	1	0	3	1	0	0	0	1	0	5	4
08:45	0	4	0	4	4	1	0	4	1	5	0	2	0	0	2	0	0	0	4	0	11	9
Total	0	15	0	4	15	2	0	11	1	13	0	4	0	3	4	0	0	0	8	0	32	16
Grand Total	0	27	0	6	27	9	0	14	15	23	1	4	4	17	9	0	0	1	36	1	60	74
Apprch %	0.0%	100.0%	0.0%			39.1%	0.0%	60.9%			11.1%	44.4%	44.4%			0.0%	0.0%	100.0%				
Total %	0.0%	45.0%	0.0%		45.0%	15.0%	0.0%	23.3%		38.3%	1.7%	6.7%	6.7%		15.0%	0.0%	0.0%	1.7%		1.7%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Oak Court Westbound					Menalto Avenue Northbound					La Hacienda Parking Spaces Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	7	0		7	2	0	2		4	0	0	2		2	0	0	0		0	13
08:00	0	3	0		3	0	0	3		3	0	1	0		1	0	0	0		0	7
08:15	0	4	0		4	1	0	4		5	0	0	0		0	0	0	0		0	9
08:30	0	4	0		4	0	0	0		0	0	1	0		1	0	0	0		0	5
Total Volume	0	18	0		18	3	0	9		12	0	2	2		4	0	0	0		0	34
% App Total	0.0%	100.0%	0.0%			25.0%	0.0%	75.0%			0.0%	50.0%	50.0%			0.0%	0.0%	0.0%			
PHF	.000	.643	.000		.643	.375	.000	.563		.600	.000	.500	.250		.500	.000	.000	.000		.000	.654

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-011 Menalto Avenue-Gilbert Avenue.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Menalto Avenue Southbound					Driveway Westbound					Menalto Avenue Northbound					Gilbert Avenue Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	11	5	0	16	0	0	0	0	0	9	14	0	0	23	5	0	1	0	6	45	0
07:15	0	20	9	0	29	0	0	0	0	0	17	10	0	0	27	4	0	3	0	7	63	0
07:30	0	21	10	0	31	0	0	0	0	0	23	10	0	0	33	3	0	4	0	7	71	0
07:45	0	34	18	0	52	0	0	0	0	0	23	16	0	0	39	12	0	1	0	13	104	0
Total	0	86	42	0	128	0	0	0	0	0	72	50	0	0	122	24	0	9	0	33	283	0
08:00	0	29	19	0	48	0	0	0	0	0	14	21	0	0	35	9	0	4	0	13	96	0
08:15	0	41	10	0	51	0	0	0	0	0	9	19	0	0	28	10	0	6	0	16	95	0
08:30	0	18	12	0	30	0	0	0	0	0	7	8	0	0	15	12	0	7	0	19	64	0
08:45	1	21	10	0	32	0	0	0	0	0	10	9	0	0	19	8	0	4	0	12	63	0
Total	1	109	51	0	161	0	0	0	0	0	40	57	0	0	97	39	0	21	0	60	318	0
Grand Total	1	195	93	0	289	0	0	0	0	0	112	107	0	0	219	63	0	30	0	93	601	0
Apprch %	0.3%	67.5%	32.2%	0.0%		0.0%	0.0%	0.0%	0.0%		51.1%	48.9%	0.0%	0.0%		67.7%	0.0%	32.3%	0.0%			
Total %	0.2%	32.4%	15.5%	0.0%	48.1%	0.0%	0.0%	0.0%	0.0%	0.0%	18.6%	17.8%	0.0%	0.0%	36.4%	10.5%	0.0%	5.0%	0.0%	15.5%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Driveway Westbound					Menalto Avenue Northbound					Gilbert Avenue Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	21	10	0	31	0	0	0	0	0	23	10	0	0	33	3	0	4	0	7	71
07:45	0	34	18	0	52	0	0	0	0	0	23	16	0	0	39	12	0	1	0	13	104
08:00	0	29	19	0	48	0	0	0	0	0	14	21	0	0	35	9	0	4	0	13	96
08:15	0	41	10	0	51	0	0	0	0	0	9	19	0	0	28	10	0	6	0	16	95
Total Volume	0	125	57	0	182	0	0	0	0	0	69	66	0	0	135	34	0	15	0	49	366
% App Total	0.0%	68.7%	31.3%	0.0%		0.0%	0.0%	0.0%	0.0%		51.1%	48.9%	0.0%	0.0%		69.4%	0.0%	30.6%	0.0%		
PHF	.000	.762	.750	.000	.875	.000	.000	.000	.000	.000	.750	.786	.000	.000	.865	.708	.000	.625	.000	.766	.880

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-011 Menalto Avenue-Gilbert Avenue.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Menalto Avenue Southbound					Driveway Westbound					Menalto Avenue Northbound					Gilbert Avenue Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	2	1
07:15	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	7	0	3	7
07:30	0	5	3	3	8	0	0	0	0	0	0	0	0	0	0	1	0	0	15	1	9	18
07:45	0	9	0	3	9	0	0	0	0	0	2	1	0	0	3	1	0	0	16	1	13	19
Total	0	17	3	6	20	0	0	0	0	0	2	3	0	0	5	2	0	0	39	2	27	45
08:00	0	2	0	2	2	0	0	0	0	0	0	0	0	0	0	1	0	1	1	2	4	3
08:15	0	5	1	1	6	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	7	5
08:30	0	4	1	0	5	0	0	0	0	0	1	1	0	0	2	1	0	0	5	1	8	5
08:45	0	4	1	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	6	1
Total	0	15	3	3	18	0	0	0	0	0	1	2	0	0	3	2	0	2	11	4	25	14
Grand Total	0	32	6	9	38	0	0	0	0	0	3	5	0	0	8	4	0	2	50	6	52	59
Apprch %	0.0%	84.2%	15.8%			0.0%	0.0%	0.0%			37.5%	62.5%	0.0%			66.7%	0.0%	33.3%				
Total %	0.0%	61.5%	11.5%		73.1%	0.0%	0.0%	0.0%		0.0%	5.8%	9.6%	0.0%		15.4%	7.7%	0.0%	3.8%		11.5%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Driveway Westbound					Menalto Avenue Northbound					Gilbert Avenue Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	5	3		8	0	0	0		0	0	0	0		0	1	0	0		1	9
07:45	0	9	0		9	0	0	0		0	2	1	0		3	1	0	0		1	13
08:00	0	2	0		2	0	0	0		0	0	0	0		0	1	0	1		2	4
08:15	0	5	1		6	0	0	0		0	0	0	0		0	0	0	1		1	7
Total Volume	0	21	4		25	0	0	0		0	2	1	0		3	3	0	2		5	33
% App Total	0.0%	84.0%	16.0%			0.0%	0.0%	0.0%			66.7%	33.3%	0.0%			60.0%	0.0%	40.0%			
PHF	.000	.583	.333		.694	.000	.000	.000		.000	.250	.250	.000		.250	.750	.000	.500		.625	.635

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldrtraffic.com

File Name : 13-7650-012 Menalto Avenue-Woodland Avenue.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Menalto Avenue Southbound					Woodland Avenue Westbound					Menalto Avenue Northbound					Driveway Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	1	12	0	0	13	16	0	12	0	28	0	11	2	0	13	0	0	0	0	0	54	0
07:15	4	17	0	0	21	50	0	22	0	72	0	4	7	0	11	0	0	0	0	0	104	0
07:30	5	20	0	0	25	26	0	29	0	55	0	3	8	0	11	0	0	0	0	0	91	0
07:45	9	27	0	0	36	25	0	30	0	55	0	9	5	0	14	0	0	0	0	0	105	0
Total	19	76	0	0	95	117	0	93	0	210	0	27	22	0	49	0	0	0	0	0	354	0
08:00	13	23	0	0	36	27	0	17	0	44	0	16	10	0	26	0	0	0	0	0	106	0
08:15	12	36	0	0	48	21	0	15	0	36	0	16	10	0	26	0	0	0	0	0	110	0
08:30	7	18	0	0	25	14	0	4	0	18	0	10	7	0	17	0	0	0	0	0	60	0
08:45	7	20	0	0	27	13	0	15	0	28	0	7	4	0	11	0	0	0	0	0	66	0
Total	39	97	0	0	136	75	0	51	0	126	0	49	31	0	80	0	0	0	0	0	342	0
Grand Total	58	173	0	0	231	192	0	144	0	336	0	76	53	0	129	0	0	0	0	0	696	0
Apprch %	25.1%	74.9%	0.0%	0.0%		57.1%	0.0%	42.9%	0.0%		0.0%	58.9%	41.1%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		
Total %	8.3%	24.9%	0.0%	0.0%	33.2%	27.6%	0.0%	20.7%	0.0%	48.3%	0.0%	10.9%	7.6%	0.0%	18.5%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Woodland Avenue Westbound					Menalto Avenue Northbound					Driveway Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	5	20	0	0	25	26	0	29	0	55	0	3	8	0	11	0	0	0	0	0	91
07:45	9	27	0	0	36	25	0	30	0	55	0	9	5	0	14	0	0	0	0	0	105
08:00	13	23	0	0	36	27	0	17	0	44	0	16	10	0	26	0	0	0	0	0	106
08:15	12	36	0	0	48	21	0	15	0	36	0	16	10	0	26	0	0	0	0	0	110
Total Volume	39	106	0	0	145	99	0	91	0	190	0	44	33	0	77	0	0	0	0	0	412
% App Total	26.9%	73.1%	0.0%	0.0%		52.1%	0.0%	47.9%	0.0%		0.0%	57.1%	42.9%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	
PHF	.750	.736	.000	.000	.755	.917	.000	.758	.000	.864	.000	.688	.825	.000	.740	.000	.000	.000	.000	.000	.936

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-012 Menalto Avenue-Woodland Avenue.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Menalto Avenue Southbound					Woodland Avenue Westbound					Menalto Avenue Northbound					Driveway Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	3	0	2	4
07:15	1	1	0	0	2	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	5	0
07:30	0	5	0	0	5	2	0	0	0	2	0	0	0	0	0	0	0	0	2	0	7	2
07:45	0	9	0	0	9	1	0	2	0	3	0	1	0	0	1	0	0	0	2	0	13	2
Total	1	16	0	0	17	5	0	3	1	8	0	2	0	0	2	0	0	0	7	0	27	8
08:00	1	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	3
08:15	1	6	0	0	7	1	0	1	0	2	0	0	2	0	2	0	0	0	3	0	11	3
08:30	0	5	0	1	5	1	0	0	0	1	0	1	0	0	1	0	0	0	2	0	7	3
08:45	0	5	0	1	5	0	0	0	0	0	0	1	0	0	1	0	0	0	4	0	6	5
Total	2	18	0	3	20	2	0	1	0	3	0	2	2	0	4	0	0	0	11	0	27	14
Grand Total	3	34	0	3	37	7	0	4	1	11	0	4	2	0	6	0	0	0	18	0	54	22
Apprch %	8.1%	91.9%	0.0%			63.6%	0.0%	36.4%			0.0%	66.7%	33.3%			0.0%	0.0%	0.0%				
Total %	5.6%	63.0%	0.0%		68.5%	13.0%	0.0%	7.4%		20.4%	0.0%	7.4%	3.7%		11.1%	0.0%	0.0%	0.0%		0.0%	100.0%	

AM PEAK HOUR	Menalto Avenue Southbound					Woodland Avenue Westbound					Menalto Avenue Northbound					Driveway Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	5	0		5	2	0	0		2	0	0	0		0	0	0	0		0	7
07:45	0	9	0		9	1	0	2		3	0	1	0		1	0	0	0		0	13
08:00	1	2	0		3	0	0	0		0	0	0	0		0	0	0	0		0	3
08:15	1	6	0		7	1	0	1		2	0	0	2		2	0	0	0		0	11
Total Volume	2	22	0		24	4	0	3		7	0	1	2		3	0	0	0		0	34
% App Total	8.3%	91.7%	0.0%			57.1%	0.0%	42.9%			0.0%	33.3%	66.7%			0.0%	0.0%	0.0%			
PHF	.500	.611	.000		.667	.500	.000	.375		.583	.000	.250	.250		.375	.000	.000	.000		.000	.654

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-005 Woodland Avenue-Middlefield Road.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Woodland Avenue Southbound					Middlefield Road Westbound					Northbound					Middlefield Road Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	3	0	19	0	22	0	123	2	0	125	0	0	0	0	0	3	143	0	0	146	293	0
07:15	3	0	44	0	47	0	164	5	0	169	0	0	0	0	0	5	171	0	0	176	392	0
07:30	9	0	50	0	59	0	177	4	0	181	0	0	0	0	0	5	187	0	0	192	432	0
07:45	16	0	50	0	66	0	140	5	0	145	0	0	0	0	0	9	190	0	0	199	410	0
Total	31	0	163	0	194	0	604	16	0	620	0	0	0	0	0	22	691	0	0	713	1527	0
08:00	11	0	40	0	51	0	146	2	0	148	0	0	0	0	0	17	241	0	0	258	457	0
08:15	9	0	45	0	54	0	149	7	0	156	0	0	0	0	0	14	262	0	0	276	486	0
08:30	8	0	30	0	38	0	178	2	0	180	0	0	0	0	0	12	219	0	0	231	449	0
08:45	6	0	35	0	41	0	186	6	0	192	0	0	0	0	0	17	255	0	0	272	505	0
Total	34	0	150	0	184	0	659	17	0	676	0	0	0	0	0	60	977	0	0	1037	1897	0
Grand Total	65	0	313	0	378	0	1263	33	0	1296	0	0	0	0	0	82	1668	0	0	1750	3424	0
Apprch %	17.2%	0.0%	82.8%	0.0%		0.0%	97.5%	2.5%	0.0%		0.0%	0.0%	0.0%	0.0%		4.7%	95.3%	0.0%	0.0%			
Total %	1.9%	0.0%	9.1%	0.0%	11.0%	0.0%	36.9%	1.0%	0.0%	37.9%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	48.7%	0.0%	0.0%	51.1%	100.0%	

AM PEAK HOUR	Woodland Avenue Southbound					Middlefield Road Westbound					Northbound					Middlefield Road Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	11	0	40	0	51	0	146	2	0	148	0	0	0	0	0	17	241	0	0	258	457
08:15	9	0	45	0	54	0	149	7	0	156	0	0	0	0	0	14	262	0	0	276	486
08:30	8	0	30	0	38	0	178	2	0	180	0	0	0	0	0	12	219	0	0	231	449
08:45	6	0	35	0	41	0	186	6	0	192	0	0	0	0	0	17	255	0	0	272	505
Total Volume	34	0	150	0	184	0	659	17	0	676	0	0	0	0	0	60	977	0	0	1037	1897
% App Total	18.5%	0.0%	81.5%	0.0%		0.0%	97.5%	2.5%	0.0%		0.0%	0.0%	0.0%	0.0%		5.8%	94.2%	0.0%	0.0%		
PHF	.773	.000	.833	.000	.852	.000	.886	.607	.000	.880	.000	.000	.000	.000	.000	.882	.932	.000	.000	.939	.939

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-005 Woodland Avenue-Middlefield Road.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Woodland Avenue Southbound					Middlefield Road Westbound					Northbound					Middlefield Road Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	1	0	0	2	1	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	5	2
07:15	1	0	0	1	1	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	4	1
07:30	0	0	0	1	0	1	5	0	0	6	0	0	0	0	0	0	4	1	0	5	11	1
07:45	2	0	0	1	2	1	5	0	0	6	0	0	0	0	0	0	3	3	0	6	14	1
Total	4	0	0	5	4	4	13	0	0	17	0	0	0	0	0	0	9	4	0	13	34	5
08:00	1	0	1	0	2	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	8	0
08:15	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4	0
08:30	2	0	0	3	2	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	8	3
08:45	4	0	3	0	7	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	8	0
Total	7	0	5	3	12	0	9	0	0	9	0	0	0	0	0	0	7	0	0	7	28	3
Grand Total	11	0	5	8	16	4	22	0	0	26	0	0	0	0	0	0	16	4	0	20	62	8
Apprch %	68.8%	0.0%	31.3%			15.4%	84.6%	0.0%			0.0%	0.0%	0.0%			0.0%	80.0%	20.0%				
Total %	17.7%	0.0%	8.1%		25.8%	6.5%	35.5%	0.0%		41.9%	0.0%	0.0%	0.0%		0.0%	0.0%	25.8%	6.5%		32.3%	100.0%	

AM PEAK HOUR	Woodland Avenue Southbound					Middlefield Road Westbound					Northbound					Middlefield Road Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	1	0	1		2	0	3	0		3	0	0	0		0	0	3	0		3	8
08:15	0	0	1		1	0	3	0		3	0	0	0		0	0	0	0		0	4
08:30	2	0	0		2	0	2	0		2	0	0	0		0	0	4	0		4	8
08:45	4	0	3		7	0	1	0		1	0	0	0		0	0	0	0		0	8
Total Volume	7	0	5		12	0	9	0		9	0	0	0		0	7	0			7	28
% App Total	58.3%	0.0%	41.7%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			
PHF	.438	.000	.417		.429	.000	.750	.000		.750	.000	.000	.000		.000	.438	.000			.438	.875

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldtraffic.com

File Name : 13-7650-013 Elliot Drive-O'Connor Street.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Driveway Southbound					O'Connor Street Westbound					Elliot Drive Northbound					O'Connor Street Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	1	15	0	0	16	1	0	0	0	1	0	6	0	0	6	23	0
07:15	0	0	0	0	0	2	22	0	0	24	0	0	1	0	1	1	10	3	0	14	39	0
07:30	0	0	0	0	0	3	32	0	0	35	1	0	0	0	1	0	9	5	0	14	50	0
07:45	0	0	0	0	0	3	57	0	0	60	7	0	1	0	8	0	29	13	0	42	110	0
Total	0	0	0	0	0	9	126	0	0	135	9	0	2	0	11	1	54	21	0	76	222	0
08:00	0	0	0	0	0	30	60	0	0	90	15	0	6	0	21	0	32	37	0	69	180	0
08:15	0	0	0	0	0	14	70	0	0	84	24	0	13	0	37	0	35	29	0	64	185	0
08:30	0	0	0	0	0	8	22	0	0	30	21	0	9	0	30	0	36	15	0	51	111	0
08:45	0	0	0	0	0	2	14	0	0	16	15	0	6	0	21	0	7	10	0	17	54	0
Total	0	0	0	0	0	54	166	0	0	220	75	0	34	0	109	0	110	91	0	201	530	0
Grand Total	0	0	0	0	0	63	292	0	0	355	84	0	36	0	120	1	164	112	0	277	752	0
Apprch %	0.0%	0.0%	0.0%	0.0%		17.7%	82.3%	0.0%	0.0%		70.0%	0.0%	30.0%	0.0%		0.4%	59.2%	40.4%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	8.4%	38.8%	0.0%	0.0%	47.2%	11.2%	0.0%	4.8%	0.0%	16.0%	0.1%	21.8%	14.9%	0.0%	36.8%	100.0%	

AM PEAK HOUR	Driveway Southbound					O'Connor Street Westbound					Elliot Drive Northbound					O'Connor Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	0	0	0	0	3	57	0	0	60	7	0	1	0	8	0	29	13	0	42	110
08:00	0	0	0	0	0	30	60	0	0	90	15	0	6	0	21	0	32	37	0	69	180
08:15	0	0	0	0	0	14	70	0	0	84	24	0	13	0	37	0	35	29	0	64	185
08:30	0	0	0	0	0	8	22	0	0	30	21	0	9	0	30	0	36	15	0	51	111
Total Volume	0	0	0	0	0	55	209	0	0	264	67	0	29	0	96	0	132	94	0	226	586
% App Total	0.0%	0.0%	0.0%	0.0%		20.8%	79.2%	0.0%	0.0%		69.8%	0.0%	30.2%	0.0%		0.0%	58.4%	41.6%	0.0%		
PHF	.000	.000	.000	.000	.000	.458	.746	.000	.000	.733	.698	.000	.558	.000	.649	.000	.917	.635	.000	.819	.792

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-013 Elliot Drive-O'Connor Street.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Driveway Southbound					O'Connor Street Westbound					Elliot Drive Northbound					O'Connor Street Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
07:15	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	2	1
07:30	0	0	0	0	0	0	2	0	0	2	0	0	0	3	0	0	2	0	0	2	4	3
07:45	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	0	0	0	0	0	1	2
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	9	0	0	3	0	0	3	7	9
08:00	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0
08:15	0	0	0	0	0	0	5	0	0	5	0	0	0	4	0	0	0	1	0	1	6	4
08:30	0	0	0	0	0	0	0	0	0	0	1	0	0	3	1	0	0	1	0	1	2	3
08:45	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	0	0	0	0	0	3	1
Total	0	0	0	0	0	0	10	0	0	10	1	0	0	8	1	0	0	2	0	2	13	8
Grand Total	0	0	0	0	0	0	14	0	0	14	1	0	0	17	1	0	3	2	0	5	20	17
Apprch %	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			100.0%	0.0%	0.0%			0.0%	60.0%	40.0%				
Total %	0.0%	0.0%	0.0%		0.0%	0.0%	70.0%	0.0%		70.0%	5.0%	0.0%	0.0%		5.0%	0.0%	15.0%	10.0%		25.0%	100.0%	

AM PEAK HOUR	Driveway Southbound					O'Connor Street Westbound					Elliot Drive Northbound					O'Connor Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	0	0		0	0	1	0		1	0	0	0		0	0	0	0		0	1
08:00	0	0	0		0	0	2	0		2	0	0	0		0	0	0	0		0	2
08:15	0	0	0		0	0	5	0		5	0	0	0		0	0	1	0		1	6
08:30	0	0	0		0	0	0	0		0	1	0	0		1	0	1	0		1	2
Total Volume	0	0	0		0	0	8	0		8	1	0	0		1	0	2	0		2	11
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			100.0%	0.0%	0.0%			0.0%	0.0%	100.0%			
PHF	.000	.000	.000		.000	.000	.400	.000		.400	.250	.000	.000		.250	.000	.000	.500		.500	.458

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldtraffic.com

File Name : 13-7650-014 Byers Drive-O'Connor Street.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Southbound					O'Connor Street Westbound					Byers Drive Northbound					O'Connor Street Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	0	0	0	0	0	1	12	0	0	13	1	0	1	0	2	0	4	1	0	5	20	0
07:15	0	0	0	0	0	0	18	0	0	18	1	0	0	0	1	0	10	0	0	10	29	0
07:30	0	0	0	0	0	1	34	0	0	35	2	0	1	0	3	0	10	0	0	10	48	0
07:45	0	0	0	0	0	0	57	0	0	57	1	0	1	0	2	0	29	1	0	30	89	0
Total	0	0	0	0	0	2	121	0	0	123	5	0	3	0	8	0	53	2	0	55	186	0
08:00	0	0	0	0	0	0	79	0	0	79	2	0	1	0	3	0	41	0	0	41	123	0
08:15	0	0	0	0	0	1	77	0	0	78	1	0	0	0	1	0	45	1	0	46	125	0
08:30	0	0	0	0	0	0	29	0	0	29	0	0	0	0	0	0	51	1	0	52	81	0
08:45	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	14	0	0	14	29	0
Total	0	0	0	0	0	1	200	0	0	201	3	0	1	0	4	0	151	2	0	153	358	0
Grand Total	0	0	0	0	0	3	321	0	0	324	8	0	4	0	12	0	204	4	0	208	544	0
Apprch %	0.0%	0.0%	0.0%	0.0%		0.9%	99.1%	0.0%	0.0%		66.7%	0.0%	33.3%	0.0%		0.0%	98.1%	1.9%	0.0%			
Total %	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	59.0%	0.0%	0.0%	59.6%	1.5%	0.0%	0.7%	0.0%	2.2%	0.0%	37.5%	0.7%	0.0%	38.2%	100.0%	

AM PEAK HOUR	Southbound					O'Connor Street Westbound					Byers Drive Northbound					O'Connor Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	0	0	0	0	0	57	0	0	57	1	0	1	0	2	0	29	1	0	30	89
08:00	0	0	0	0	0	0	79	0	0	79	2	0	1	0	3	0	41	0	0	41	123
08:15	0	0	0	0	0	1	77	0	0	78	1	0	0	0	1	0	45	1	0	46	125
08:30	0	0	0	0	0	0	29	0	0	29	0	0	0	0	0	0	51	1	0	52	81
Total Volume	0	0	0	0	0	1	242	0	0	243	4	0	2	0	6	0	166	3	0	169	418
% App Total	0.0%	0.0%	0.0%	0.0%		0.4%	99.6%	0.0%	0.0%		66.7%	0.0%	33.3%	0.0%		0.0%	98.2%	1.8%	0.0%		
PHF	.000	.000	.000	.000	.000	.250	.766	.000	.000	.769	.500	.000	.500	.000	.500	.000	.814	.750	.000	.813	.836

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-014 Byers Drive-O'Connor Street.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Southbound					O'Connor Street Westbound					Byers Drive Northbound					O'Connor Street Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
07:15	0	0	0	0	0	0	1	0	1	1	0	0	0	4	0	0	0	0	0	0	1	5
07:30	0	0	0	0	0	0	1	0	0	1	0	0	0	3	0	0	1	0	0	1	2	3
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	2	0	1	2	0	0	0	10	0	0	1	0	0	1	3	11
08:00	0	0	0	0	0	0	3	0	0	3	0	0	0	2	0	0	0	0	0	0	3	2
08:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
08:45	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	7	0	0	7	0	0	0	4	0	0	0	0	0	0	7	4
Grand Total	0	0	0	0	0	0	9	0	1	9	0	0	0	14	0	0	1	0	0	1	10	15
Apprch %	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%				
Total %	0.0%	0.0%	0.0%		0.0%	0.0%	90.0%	0.0%		90.0%	0.0%	0.0%	0.0%		0.0%	0.0%	10.0%	0.0%		10.0%	100.0%	

AM PEAK HOUR	Southbound					O'Connor Street Westbound					Byers Drive Northbound					O'Connor Street Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
08:00	0	0	0		0	0	3	0		3	0	0	0		0	0	0	0		0	3
08:15	0	0	0		0	0	3	0		3	0	0	0		0	0	0	0		0	3
08:30	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
Total Volume	0	0	0		0	0	6	0		6	0	0	0		0	0	0	0		0	6
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	0.0%	0.0%			
PHF	.000	.000	.000		.000	.000	.500	.000		.500	.000	.000	.000		.000	.000	.000	.000		.000	.500

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-015 Oak Court-Woodland Avenue.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	Oak Court Southbound					Woodland Avenue Westbound					Northbound					Woodland Avenue Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	2	0	2	0	4	0	23	0	0	23	0	0	0	0	0	0	4	0	0	4	31	0
07:15	2	0	4	0	6	0	65	3	0	68	0	0	0	0	0	0	7	0	0	7	81	0
07:30	3	0	4	0	7	0	58	1	0	59	0	0	0	0	0	2	8	0	0	10	76	0
07:45	4	0	4	0	8	0	41	0	0	41	0	0	0	0	0	0	12	0	0	12	61	0
Total	11	0	14	0	25	0	187	4	0	191	0	0	0	0	0	2	31	0	0	33	249	0
08:00	7	0	1	0	8	0	43	1	0	44	0	0	0	0	0	2	22	0	0	24	76	0
08:15	4	0	4	0	8	0	32	2	0	34	0	0	0	0	0	2	19	0	0	21	63	0
08:30	4	0	1	0	5	0	17	0	0	17	0	0	0	0	0	1	19	0	0	20	42	0
08:45	6	0	2	0	8	0	23	3	0	26	0	0	0	0	0	1	9	0	0	10	44	0
Total	21	0	8	0	29	0	115	6	0	121	0	0	0	0	0	6	69	0	0	75	225	0
Grand Total	32	0	22	0	54	0	302	10	0	312	0	0	0	0	0	8	100	0	0	108	474	0
Apprch %	59.3%	0.0%	40.7%	0.0%		0.0%	96.8%	3.2%	0.0%		0.0%	0.0%	0.0%	0.0%		7.4%	92.6%	0.0%	0.0%			
Total %	6.8%	0.0%	4.6%	0.0%	11.4%	0.0%	63.7%	2.1%	0.0%	65.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	21.1%	0.0%	0.0%	22.8%	100.0%	

AM PEAK HOUR	Oak Court Southbound					Woodland Avenue Westbound					Northbound					Woodland Avenue Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	2	0	4	0	6	0	65	3	0	68	0	0	0	0	0	0	7	0	0	7	81
07:30	3	0	4	0	7	0	58	1	0	59	0	0	0	0	0	2	8	0	0	10	76
07:45	4	0	4	0	8	0	41	0	0	41	0	0	0	0	0	0	12	0	0	12	61
08:00	7	0	1	0	8	0	43	1	0	44	0	0	0	0	0	2	22	0	0	24	76
Total Volume	16	0	13	0	29	0	207	5	0	212	0	0	0	0	0	4	49	0	0	53	294
% App Total	55.2%	0.0%	44.8%	0.0%		0.0%	97.6%	2.4%	0.0%		0.0%	0.0%	0.0%	0.0%		7.5%	92.5%	0.0%	0.0%		
PHF	.571	.000	.813	.000	.906	.000	.796	.417	.000	.779	.000	.000	.000	.000	.000	.500	.557	.000	.000	.552	.907

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-015 Oak Court-Woodland Avenue.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	Oak Court Southbound					Woodland Avenue Westbound					Northbound					Woodland Avenue Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	0	0	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3
07:15	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0
07:30	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45	0	0	0	2	0	0	1	4	0	5	0	0	0	0	0	0	0	0	0	0	5	2
Total	1	0	0	7	1	0	1	6	0	7	0	0	0	0	0	0	0	0	0	0	8	7
08:00	0	0	0	4	0	0	0	3	0	3	0	0	0	0	0	0	1	0	0	1	4	4
08:15	1	0	0	0	1	0	0	4	0	4	0	0	0	0	0	1	0	0	0	1	6	0
08:30	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	0	0	1	3	0
08:45	0	0	0	1	0	0	1	2	0	3	0	0	0	0	0	0	1	0	0	1	4	1
Total	1	0	0	5	1	0	1	11	0	12	0	0	0	0	0	1	3	0	0	4	17	5
Grand Total	2	0	0	12	2	0	2	17	0	19	0	0	0	0	0	1	3	0	0	4	25	12
Apprch %	100.0%	0.0%	0.0%			0.0%	10.5%	89.5%			0.0%	0.0%	0.0%			25.0%	75.0%	0.0%				
Total %	8.0%	0.0%	0.0%		8.0%	0.0%	8.0%	68.0%		76.0%	0.0%	0.0%	0.0%		0.0%	4.0%	12.0%	0.0%		16.0%	100.0%	

AM PEAK HOUR	Oak Court Southbound					Woodland Avenue Westbound					Northbound					Woodland Avenue Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:15 to 08:15																					
Peak Hour For Entire Intersection Begins at 07:15																					
07:15	1	0	0		1	0	0	1		1	0	0	0		0	0	0	0		0	2
07:30	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
07:45	0	0	0		0	0	1	4		5	0	0	0		0	0	0	0		0	5
08:00	0	0	0		0	0	0	3		3	0	0	0		0	1	0	0		1	4
Total Volume	1	0	0		1	0	1	8		9	0	0	0		0	1	0	0		1	11
% App Total	100.0%	0.0%	0.0%			0.0%	11.1%	88.9%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			
PHF	.250	.000	.000		.250	.000	.250	.500		.450	.000	.000	.000		.000	.250	.000			.250	.550

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@aldtraffic.com

File Name : 13-7650-016 University Avenue-Woodland Avenue.ppd

Date : 11/6/2013

Unshifted Count = All Vehicles

	University Avenue Southbound					Woodland Avenue Westbound					University Avenue Northbound					Woodland Avenue Eastbound					Total	Uturn Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL		
07:00	40	235	93	5	373	4	9	64	0	77	6	92	2	0	100	54	8	9	0	71	621	5
07:15	50	249	132	3	434	5	26	72	0	103	6	106	8	0	120	81	13	10	0	104	761	3
07:30	62	271	120	2	455	4	31	106	0	141	10	153	5	0	168	99	16	20	0	135	899	2
07:45	65	263	136	2	466	3	24	92	0	119	15	128	7	0	150	118	11	18	0	147	882	2
Total	217	1018	481	12	1728	16	90	334	0	440	37	479	22	0	538	352	48	57	0	457	3163	12
08:00	69	226	178	3	476	5	35	78	0	118	22	169	6	0	197	107	18	16	0	141	932	3
08:15	71	252	170	1	494	5	30	76	0	111	15	163	2	0	180	88	20	20	0	128	913	1
08:30	75	230	81	1	387	4	20	45	0	69	17	141	9	0	167	84	34	7	0	125	748	1
08:45	39	242	114	0	395	4	21	36	0	61	19	133	4	0	156	64	17	15	0	96	708	0
Total	254	950	543	5	1752	18	106	235	0	359	73	606	21	0	700	343	89	58	0	490	3301	5
Grand Total	471	1968	1024	17	3480	34	196	569	0	799	110	1085	43	0	1238	695	137	115	0	947	6464	17
Apprch %	13.5%	56.6%	29.4%	0.5%		4.3%	24.5%	71.2%	0.0%		8.9%	87.6%	3.5%	0.0%		73.4%	14.5%	12.1%	0.0%			
Total %	7.3%	30.4%	15.8%	0.3%	53.8%	0.5%	3.0%	8.8%	0.0%	12.4%	1.7%	16.8%	0.7%	0.0%	19.2%	10.8%	2.1%	1.8%	0.0%	14.7%	100.0%	

AM PEAK HOUR	University Avenue Southbound					Woodland Avenue Westbound					University Avenue Northbound					Woodland Avenue Eastbound					Total
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	62	271	120	2	455	4	31	106	0	141	10	153	5	0	168	99	16	20	0	135	899
07:45	65	263	136	2	466	3	24	92	0	119	15	128	7	0	150	118	11	18	0	147	882
08:00	69	226	178	3	476	5	35	78	0	118	22	169	6	0	197	107	18	16	0	141	932
08:15	71	252	170	1	494	5	30	76	0	111	15	163	2	0	180	88	20	20	0	128	913
Total Volume	267	1012	604	8	1891	17	120	352	0	489	62	613	20	0	695	412	65	74	0	551	3626
% App Total	14.1%	53.5%	31.9%	0.4%		3.5%	24.5%	72.0%	0.0%		8.9%	88.2%	2.9%	0.0%		74.8%	11.8%	13.4%	0.0%		
PHF	.940	.934	.848	.667	.957	.850	.857	.830	.000	.867	.705	.907	.714	.000	.882	.873	.813	.925	.000	.937	.973

ALL TRAFFIC DATA

City of Menlo Park
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700

orders@atdtraffic.com

File Name : 13-7650-016 University Avenue-Woodland Avenue.ppd

Date : 11/6/2013

Bank 1 Count = Peds & Bikes

	University Avenue Southbound					Woodland Avenue Westbound					University Avenue Northbound					Woodland Avenue Eastbound					Total	Ped Total
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	3	0	0	3	1	2	0	2	3	0	0	0	5	0	0	0	3	5	3	9	12
07:15	0	4	0	0	4	1	2	0	1	3	0	0	0	6	0	0	1	1	4	2	9	11
07:30	0	3	0	0	3	0	0	1	1	1	1	1	0	6	2	0	2	0	5	2	8	12
07:45	2	5	0	0	7	0	2	2	0	4	1	2	1	4	4	0	0	2	1	2	17	5
Total	2	15	0	0	17	2	6	3	4	11	2	3	1	21	6	0	3	6	15	9	43	40
08:00	0	9	2	0	11	1	3	0	0	4	0	3	0	9	3	0	3	1	2	4	22	11
08:15	0	3	0	0	3	3	5	0	0	8	0	1	0	5	1	0	3	0	8	3	15	13
08:30	0	5	0	0	5	3	2	0	0	5	0	0	1	4	1	0	3	2	0	5	16	4
08:45	1	1	1	0	3	0	1	2	2	3	0	1	0	9	1	1	0	2	3	3	10	14
Total	1	18	3	0	22	7	11	2	2	20	0	5	1	27	6	1	9	5	13	15	63	42
Grand Total	3	33	3	0	39	9	17	5	6	31	2	8	2	48	12	1	12	11	28	24	106	82
Apprch %	7.7%	84.6%	7.7%			29.0%	54.8%	16.1%			16.7%	66.7%	16.7%			4.2%	50.0%	45.8%				
Total %	2.8%	31.1%	2.8%		36.8%	8.5%	16.0%	4.7%		29.2%	1.9%	7.5%	1.9%		11.3%	0.9%	11.3%	10.4%		22.6%	100.0%	

AM PEAK HOUR	University Avenue Southbound					Woodland Avenue Westbound					University Avenue Northbound					Woodland Avenue Eastbound					Total
START TIME	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	LEFT	THRU	RIGHT		APP.TOTAL	
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	3	0		3	0	0	1		1	1	1	0		2	0	2	0		2	8
07:45	2	5	0		7	0	2	2		4	1	2	1		4	0	0	2		2	17
08:00	0	9	2		11	1	3	0		4	0	3	0		3	0	3	1		4	22
08:15	0	3	0		3	3	5	0		8	0	1	0		1	0	3	0		3	15
Total Volume	2	20	2		24	4	10	3		17	2	7	1		10	0	8	3		11	62
% App Total	8.3%	83.3%	8.3%			23.5%	58.8%	17.6%			20.0%	70.0%	10.0%			0.0%	72.7%	27.3%			
PHF	.250	.556	.250		.545	.333	.500	.375		.531	.500	.583	.250		.625	.000	.667	.375		.688	.705

ATTACHMENT 2

STUDENT DEMOGRAPHIC DATA

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
622229	720	COLEMAN	AVE K	Menlo Park	683	01	EN
621441	423	CENTRAL	AVE	Menlo Park	688	02	EN
621354	720	COLEMAN	AVE K	Menlo Park	683	02	EN
621630	842	COLEMAN	AVE 10	Menlo Park	683	02	EN
621358	404	DURHAM	ST	Menlo Park	689	02	EN
622430	415	LAUREL	AVE	Menlo Park	688	02	EN
621382	328	MCKENDRY	DR	Menlo Park	685	02	EN
621408	1037	OAKLAND	AVE	Menlo Park	673	02	EN
621174	206	POPE	ST	Menlo Park	688	02	EN
621164	47	RINGWOOD	AVE	Atherton	654	02	EN
623511	847	WOODLAND	AVE	Menlo Park	688	02	EN
622023	1004	DEL NORTE	AVE	Menlo Park	672	03	EN
623476	610	GILBERT	AVE	Menlo Park	682	03	EN
621595	1001	MADERA	AVE 2	Menlo Park	675	03	EN
620820	1051	MENLO OAKS	DR	Menlo Park	673	03	EN
620708	216	OAK	CT	Menlo Park	693	03	EN
621101	230	OAK GROVE	AVE	Atherton	654	03	EN
620649	1023	OAKLAND	AVE	Menlo Park	673	03	EN
620648	1023	OAKLAND	AVE	Menlo Park	673	03	EN
620789	427	POPE	ST	Menlo Park	688	03	EN
620544	47	RINGWOOD	AVE	Atherton	654	03	EN
620886	1058	RINGWOOD	AVE	Menlo Park	672	03	EN
621715	248	SANTA MARGARITA	AVE	Menlo Park	681	03	EN
511272	3	ALDER	PL	Menlo Park	680	04	EN
511329	301	ARLINGTON	WAY	Menlo Park	679	04	EN
511317	440	ARLINGTON	WAY	Menlo Park	679	04	EN
511347	758	ARNOLD	WAY	Menlo Park	689	04	EN
623004	329	BARTON	PL	Menlo Park	686	04	EN
511322	414	BAY	RD	Menlo Park	678	04	EN
511346	415	BAY	RD	Menlo Park	673	04	EN
511286	422	BAY	RD	Menlo Park	678	04	EN
511328	711	BAY	RD	Menlo Park	674	04	EN
511309	126	BAYWOOD	AVE	Menlo Park	685	04	EN
620388	540	BERKELEY	AVE	Menlo Park	678	04	EN
511318	776	BERKELEY	AVE	Menlo Park	678	04	EN
511353	1027	BERKELEY	AVE	Menlo Park	674	04	EN
621015	101	BLACKBURN	AVE	Menlo Park	685	04	EN
511326	120	BLACKBURN	AVE	Menlo Park	685	04	EN
511359	324	CENTRAL	AVE	Menlo Park	688	04	EN
511307	413	CENTRAL	AVE	Menlo Park	688	04	EN
511302	446	CENTRAL	AVE	Menlo Park	688	04	EN
511314	637	CENTRAL	AVE	Menlo Park	688	04	EN
511271	204	CHESTER	ST	Menlo Park	689	04	EN
511290	105	CLOVER	LN	Menlo Park	685	04	EN
622421	4	COLEMAN	PL A	Menlo Park	683	04	EN
620516	10	COLEMAN	PL 3	Menlo Park	683	04	EN
622401	12	COLEMAN	PL 1	Menlo Park	683	04	EN
621098	22	COLEMAN	PL 8	Menlo Park	683	04	EN
511336	720	COLEMAN	AVE I	Menlo Park	683	04	EN
511291	840	COLEMAN	AVE 11	Menlo Park	683	04	EN
620507	332	CONCORD	DR	Menlo Park	686	04	EN
511297	335	CONCORD	DR	Menlo Park	686	04	EN

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
511279	510	CONCORD	DR	Menlo Park	686	04	EN
620556	1074	DEL NORTE	AVE	Menlo Park	672	04	EN
511289	315	DURHAM	ST	Menlo Park	689	04	EN
511354	404	DURHAM	ST	Menlo Park	689	04	EN
511274	415	DURHAM	ST	Menlo Park	689	04	EN
622514	507	DURHAM	ST	Menlo Park	689	04	EN
511251	190	E OKEEFE	ST 2	Menlo Park	695	04	EN
511339	180	ELLIOTT	DR	Menlo Park	694	04	EN
511296	221	ELM	ST	Menlo Park	688	04	EN
511256	25	ELMWOOD	PL	Menlo Park	680	04	EN
511324	120	EMMA	LN	Menlo Park	692	04	EN
620928	420	FRENCH	CT	Menlo Park	693	04	EN
511349	505	GILBERT	AVE	Menlo Park	686	04	EN
623477	610	GILBERT	AVE	Menlo Park	682	04	EN
622530	655	GILBERT	AVE	Menlo Park	681	04	EN
511338	740	GILBERT	AVE	Menlo Park	681	04	EN
511343	20	GLORIA	CIR	Menlo Park	680	04	EN
623439	285	GLORIA	CIR	Menlo Park	680	04	EN
511357	324	GRAYSON	CT	Menlo Park	689	04	EN
511344	408	GRAYSON	CT	Menlo Park	689	04	EN
620929	228	HAIGHT	ST	Menlo Park	689	04	EN
511120	180	HANNA	WAY	Menlo Park	680	04	EN
511119	180	HANNA	WAY	Menlo Park	680	04	EN
621525	200	HANNA	WAY	Menlo Park	680	04	EN
622431	415	LAUREL	AVE	Menlo Park	688	04	EN
511260	920	LAUREL	AVE	Menlo Park	689	04	EN
620635	927	LAUREL	AVE	Menlo Park	689	04	EN
622491	941	LAUREL	AVE	Menlo Park	689	04	EN
511268	280	MARMONA	DR	Menlo Park	685	04	EN
621545	356	MARMONA	DR	Menlo Park	685	04	EN
511294	334	MCKENDRY	PL	Menlo Park	685	04	EN
511299	361	MCKENDRY	DR	Menlo Park	685	04	EN
511306	1989	MENALTO	AVE	Menlo Park	688	04	EN
511278	2048	MENALTO	AVE	Menlo Park	689	04	EN
622436	2115	MENALTO	AVE	Menlo Park	689	04	EN
511295	298	MENLO OAKS	DR	Menlo Park	679	04	EN
622015	301	MENLO OAKS	DR	Menlo Park	679	04	EN
511282	995	MENLO OAKS	DR	Menlo Park	678	04	EN
511345	340	NOVA	LN	Menlo Park	686	04	EN
511304	124	O CONNOR	ST	Menlo Park	694	04	EN
511301	482	O CONNOR	ST	Menlo Park	694	04	EN
511270	198	OAK	CT	Menlo Park	691	04	EN
511269	198	OAK	CT	Menlo Park	691	04	EN
511321	309	OAK	CT	Menlo Park	693	04	EN
511334	1034	OAKLAND	AVE	Menlo Park	673	04	EN
511320	1042	OAKLAND	AVE	Menlo Park	673	04	EN
511255	303	OAKWOOD	PL	Menlo Park	672	04	EN
511332	307	OKEEFE	ST	Menlo Park	689	04	EN
511361	311	OKEEFE	ST	Menlo Park	689	04	EN
621636	570	OKEEFE	ST	Menlo Park	689	04	EN
511356	117	POPE	ST	Menlo Park	688	04	EN
623032	129	POPE	ST	Menlo Park	688	04	EN

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
511261	201	POPE	ST	Menlo Park	688	04	EN
511259	206	POPE	ST	Menlo Park	688	04	EN
511352	309	POPE	ST	Menlo Park	688	04	EN
511312	327	POPE	ST	Menlo Park	688	04	EN
511264	1030	RINGWOOD	AVE	Menlo Park	672	04	EN
621716	248	SANTA MARGARITA	AVE	Menlo Park	681	04	EN
511275	400	SANTA MONICA	AVE	Menlo Park	681	04	EN
511341	111	SEMINARY	DR	Menlo Park	680	04	EN
622011	1048	SONOMA	AVE	Menlo Park	672	04	EN
511311	1035	TEHAMA	AVE	Menlo Park	672	04	EN
511330	1059	TEHAMA	AVE	Menlo Park	672	04	EN
622459	339	TRENTON	WAY	Menlo Park	686	04	EN
610994	214	WALNUT	ST	Menlo Park	688	04	EN
622392	170	WILLOW	RD	Menlo Park	685	04	EN
620472	600	WILLOW	RD 15	Menlo Park	698	04	EN
611062	1024	WINDERMERE	AVE	Menlo Park	674	04	EN
511284	1032	WINDERMERE	AVE	Menlo Park	674	04	EN
511303	2	WISTERIA	WAY	Atherton	654	04	EN
621059	675	WOODLAND	AVE	Menlo Park	686	04	EN
511337	706	WOODLAND	AVE	Menlo Park	687	04	EN
511323	1321	WOODLAND	AVE	Menlo Park	692	04	EN
511327	1485	WOODLAND	AVE	Menlo Park	692	04	EN
620400	1033	ALMANOR	AVE	Menlo Park	673	05	EN
511364	1040	ALMANOR	AVE	Menlo Park	673	05	EN
511181	1047	ALMANOR	AVE	Menlo Park	673	05	EN
520219	480	ARLINGTON	WAY	Menlo Park	679	05	EN
511115	632	BAY	RD	Menlo Park	678	05	EN
511154	126	BAYWOOD	AVE	Menlo Park	685	05	EN
520308	640	BERKELEY	AVE	Menlo Park	678	05	EN
511226	909	BERKELEY	AVE	Menlo Park	678	05	EN
511110	940	BERKELEY	AVE	Menlo Park	678	05	EN
511121	1016	BERKELEY	AVE	Menlo Park	674	05	EN
511129	311	CENTRAL	AVE	Menlo Park	688	05	EN
520163	409	CENTRAL	AVE	Menlo Park	688	05	EN
511172	410	CENTRAL	AVE	Menlo Park	688	05	EN
520248	423	CENTRAL	AVE	Menlo Park	688	05	EN
511133	440	CENTRAL	AVE	Menlo Park	688	05	EN
511117	535	CENTRAL	AVE	Menlo Park	688	05	EN
511151	324	CHESTER	ST	Menlo Park	689	05	EN
622006	327	CHESTER	ST	Menlo Park	689	05	EN
621096	411	CHESTER	ST	Menlo Park	689	05	EN
511127	107	CLOVER	LN	Menlo Park	685	05	EN
511196	10	COLEMAN	PL 3	Menlo Park	683	05	EN
511237	10	COLEMAN	PL 3	Menlo Park	683	05	EN
511195	10	COLEMAN	PL 3	Menlo Park	683	05	EN
511123	15	COLEMAN	PL 2	Menlo Park	683	05	EN
621071	700	COLEMAN	AVE 3	Menlo Park	683	05	EN
623467	744	COLEMAN	AVE H	Menlo Park	683	05	EN
511225	810	COLEMAN	AVE 22	Menlo Park	683	05	EN
621077	842	COLEMAN	AVE 3	Menlo Park	683	05	EN
511165	1099	COLEMAN	AVE	Menlo Park	679	05	EN
511128	323	CONCORD	DR	Menlo Park	686	05	EN

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
511166	437	CONCORD	DR	Menlo Park	686	05	EN
511143	506	CONCORD	DR	Menlo Park	686	05	EN
511170	1004	DEL NORTE	AVE	Menlo Park	672	05	EN
621706	1043	DEL NORTE	AVE	Menlo Park	672	05	EN
511138	204	DURHAM	ST	Menlo Park	689	05	EN
511221	404	DURHAM	ST	Menlo Park	689	05	EN
511114	415	DURHAM	ST	Menlo Park	689	05	EN
520251	70	EDGE	RD	Atherton	654	05	EN
620792	175	ELLIOTT	DR	Menlo Park	694	05	EN
511144	144	ELM	ST	Menlo Park	688	05	EN
520276	150	EMMA	LN	Menlo Park	692	05	EN
511198	48	ENCINO	RD	Atherton	654	05	EN
621104	1959	EUCLID	AVE	Menlo Park	697	05	EN
520306	610	GILBERT	AVE 8	Menlo Park	682	05	EN
511199	75	GLORIA	CIR	Menlo Park	680	05	EN
511160	327	GRAYSON	CT	Menlo Park	689	05	EN
621482	336	GRAYSON	CT	Menlo Park	689	05	EN
511149	222	LAUREL	AVE	Menlo Park	688	05	EN
511118	419	LAUREL	AVE	Menlo Park	688	05	EN
511174	540	LAUREL	AVE	Menlo Park	688	05	EN
511105	920	LAUREL	AVE	Menlo Park	689	05	EN
620636	927	LAUREL	AVE	Menlo Park	689	05	EN
620502	936	LAUREL	AVE	Menlo Park	689	05	EN
511313	224	LEXINGTON	DR	Menlo Park	686	05	EN
511173	336	LEXINGTON	DR	Menlo Park	686	05	EN
622007	50	LOWERY	DR	Atherton	654	05	EN
511183	1017	MADERA	AVE B	Menlo Park	675	05	EN
511184	1017	MADERA	AVE E	Menlo Park	675	05	EN
511125	1017	MADERA	AVE C	Menlo Park	675	05	EN
511161	229	MARMONA	DR	Menlo Park	686	05	EN
511135	241	MARMONA	DR	Menlo Park	685	05	EN
511169	220	MENLO OAKS	DR	Menlo Park	679	05	EN
511108	241	MENLO OAKS	DR	Menlo Park	679	05	EN
511107	241	MENLO OAKS	DR	Menlo Park	679	05	EN
511134	462	MENLO OAKS	DR	Menlo Park	679	05	EN
520252	500	MENLO OAKS	DR	Menlo Park	678	05	EN
511190	990	MENLO OAKS	DR	Menlo Park	678	05	EN
511145	1031	MENLO OAKS	DR	Menlo Park	673	05	EN
511366	1050	MENLO OAKS	DR	Menlo Park	673	05	EN
511148	1051	MENLO OAKS	DR	Menlo Park	673	05	EN
511193	1052	MENLO OAKS	DR	Menlo Park	673	05	EN
520249	106	O CONNOR	ST	Menlo Park	694	05	EN
511164	123	O CONNOR	ST	Menlo Park	694	05	EN
511111	217	O CONNOR	ST	Menlo Park	694	05	EN
511142	484	O CONNOR	ST	Menlo Park	697	05	EN
511124	190	OAK	CT	Menlo Park	691	05	EN
520240	216	OAK	CT	Menlo Park	693	05	EN
511176	401	OAK	CT	Menlo Park	693	05	EN
511104	468	OAK	CT	Menlo Park	693	05	EN
511141	485	OAK	CT	Menlo Park	693	05	EN
621081	242	OAK GROVE	AVE	Atherton	654	05	EN
511367	1042	OAKLAND	AVE	Menlo Park	673	05	EN

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
511147	101	OKEEFE	ST	Menlo Park	689	05	EN
511245	212	OKEEFE	ST	Menlo Park	689	05	EN
621717	6	PEPPERWOOD	CT	Menlo Park	680	05	EN
511101	305	POPE	ST	Menlo Park	688	05	EN
511106	410	RINGWOOD	AVE	Menlo Park	679	05	EN
511243	680	RINGWOOD	AVE	Menlo Park	678	05	EN
511171	242	SANTA MARGARITA	AVE	Menlo Park	681	05	EN
510964	191	SEMINARY	DR	Menlo Park	680	05	EN
511157	1011	SEVIER	AVE	Menlo Park	674	05	EN
511158	1035	TEHAMA	AVE	Menlo Park	672	05	EN
520222	1043	TEHAMA	AVE	Menlo Park	672	05	EN
511212	600	WILLOW	RD 16	Menlo Park	698	05	EN
622526	95	WISTERIA	WAY	Atherton	654	05	EN
511220	685	WOODLAND	AVE	Menlo Park	686	05	EN
623512	847	WOODLAND	AVE	Menlo Park	688	05	EN
510986	1285	WOODLAND	AVE	Menlo Park	692	05	EN
623208	2	ALDER	PL	Menlo Park	680	00	LR
623427	1000	ALMANOR	AVE	Menlo Park	673	00	LR
623182	1044	ALMANOR	AVE	Menlo Park	673	00	LR
623199	301	ARLINGTON	WAY	Menlo Park	679	00	LR
622503	816	ARNOLD	WAY	Menlo Park	689	00	LR
623137	300	BARTON	WAY	Menlo Park	686	00	LR
623207	542	BAY	RD	Menlo Park	678	00	LR
623206	542	BAY	RD	Menlo Park	678	00	LR
623169	130	BAYWOOD	AVE	Menlo Park	685	00	LR
623133	160	BAYWOOD	AVE	Menlo Park	685	00	LR
623150	600	BERKELEY	AVE	Menlo Park	678	00	LR
623184	1015	BERKELEY	AVE	Menlo Park	674	00	LR
623193	120	BLACKBURN	AVE	Menlo Park	685	00	LR
623374	423	CENTRAL	AVE	Menlo Park	688	00	LR
623124	535	CENTRAL	AVE	Menlo Park	688	00	LR
623181	2	COLEMAN	PL A	Menlo Park	683	00	LR
623203	720	COLEMAN	AVE I	Menlo Park	683	00	LR
623469	744	COLEMAN	AVE H	Menlo Park	683	00	LR
623153	750	COLEMAN	AVE 9	Menlo Park	683	00	LR
623507	782	COLEMAN	AVE E	Menlo Park	683	00	LR
623197	786	COLEMAN	AVE C	Menlo Park	683	00	LR
623146	808	COLEMAN	AVE 4	Menlo Park	683	00	LR
623387	810	COLEMAN	AVE 23	Menlo Park	683	00	LR
623385	810	COLEMAN	AVE 23	Menlo Park	683	00	LR
623125	840	COLEMAN	AVE 8	Menlo Park	683	00	LR
623142	840	COLEMAN	AVE 9	Menlo Park	683	00	LR
623147	335	CONCORD	DR	Menlo Park	686	00	LR
623144	209	DURHAM	ST	Menlo Park	689	00	LR
623185	227	ELLIOTT	DR	Menlo Park	694	00	LR
623138	222	ELM	ST	Menlo Park	688	00	LR
623094	25	ELMWOOD	PL	Menlo Park	680	00	LR
623190	410	GILBERT	AVE	Menlo Park	688	00	LR
623173	610	GILBERT	AVE 22	Menlo Park	682	00	LR
623160	723	GILBERT	AVE	Menlo Park	681	00	LR
623131	787	GILBERT	AVE	Menlo Park	681	00	LR
622178	324	GRAYSON	CT	Menlo Park	689	00	LR

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
623172	180	GREENOAKS	DR	Atherton	654 00		LR
623141	1039	HENDERSON	AVE	Menlo Park	674 00		LR
623145	1047	HENDERSON	AVE	Menlo Park	674 00		LR
623163	222	LAUREL	AVE	Menlo Park	688 00		LR
623114	677	LAUREL	AVE	Menlo Park	688 00		LR
623155	724	LAUREL	AVE	Menlo Park	689 00		LR
623168	225	LEXINGTON	DR	Menlo Park	686 00		LR
623200	1013	MADERA	AVE C	Menlo Park	675 00		LR
623167	213	MCKENDRY	DR	Menlo Park	685 00		LR
623406	310	MCKENDRY	DR	Menlo Park	685 00		LR
623174	328	MCKENDRY	DR	Menlo Park	685 00		LR
623143	334	MCKENDRY	PL	Menlo Park	685 00		LR
623493	357	MCKENDRY	DR	Menlo Park	685 00		LR
623123	385	MCKENDRY	DR	Menlo Park	685 00		LR
623136	2031	MENALTO	AVE	Menlo Park	689 00		LR
623488	2047	MENALTO	AVE	Menlo Park	689 00		LR
623128	420	MENLO OAKS	DR	Menlo Park	679 00		LR
623135	482	MENLO OAKS	DR	Menlo Park	679 00		LR
623381	573	MENLO OAKS	DR	Menlo Park	678 00		LR
623101	591	MENLO OAKS	DR	Menlo Park	678 00		LR
623186	807	MENLO OAKS	DR	Menlo Park	678 00		LR
623130	870	MENLO OAKS	DR	Menlo Park	678 00		LR
623176	320	NOVA	LN	Menlo Park	686 00		LR
623119	341	NOVA	LN	Menlo Park	686 00		LR
623339	316	O CONNOR	ST	Menlo Park	694 00		LR
623100	342	O CONNOR	ST	Menlo Park	694 00		LR
623151	484	O CONNOR	ST	Menlo Park	697 00		LR
623134	190	OAK	CT	Menlo Park	691 00		LR
623115	301	OAK	CT	Menlo Park	693 00		LR
623368	431	OAK	CT	Menlo Park	693 00		LR
623139	218	OAK GROVE	AVE	Atherton	654 00		LR
623171	1039	OAKLAND	AVE	Menlo Park	673 00		LR
623110	318	OAKWOOD	PL	Menlo Park	672 00		LR
623201	404	OKEEFE	ST	Menlo Park	689 00		LR
623177	4	PEPPERWOOD	CT	Menlo Park	680 00		LR
623092	210	POPE	ST	Menlo Park	688 00		LR
622029	305	POPE	ST	Menlo Park	688 00		LR
623127	426	POPE	ST	Menlo Park	688 00		LR
623189	508	POPE	ST	Menlo Park	688 00		LR
623095	518	POPE	ST	Menlo Park	688 00		LR
623106	529	POPE	ST	Menlo Park	688 00		LR
623180	440	RINGWOOD	AVE	Menlo Park	679 00		LR
623161	1033	RINGWOOD	AVE	Menlo Park	672 00		LR
623204	1056	RINGWOOD	AVE	Menlo Park	672 00		LR
623178	228	ROBIN	WAY	Menlo Park	685 00		LR
623192	304	ROBIN	WAY	Menlo Park	685 00		LR
623126	182	SAN ANDREAS	DR	Menlo Park	681 00		LR
623162	272	SANTA MARGARITA	AVE	Menlo Park	681 00		LR
623154	401	SANTA MARGARITA	AVE	Menlo Park	681 00		LR
623191	260	SANTA MONICA	AVE	Menlo Park	681 00		LR
623118	310	SANTA MONICA	AVE	Menlo Park	681 00		LR
623485	1004	SEVIER	AVE	Menlo Park	674 00		LR

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
623156	1041	SONOMA	AVE	Menlo Park	672	00	LR
623164	315	TRENTON	WAY	Menlo Park	686	00	LR
623105	170	WILLOW	RD	Menlo Park	685	00	LR
623209	318	WILLOW	RD	Menlo Park	685	00	LR
623376	565	WILLOW	RD 9	Menlo Park	683	00	LR
623107	600	WILLOW	RD 23	Menlo Park	698	00	LR
623196	600	WILLOW	RD 5	Menlo Park	698	00	LR
623157	720	WILLOW	RD	Menlo Park	689	00	LR
623158	928	WILLOW	RD A	Menlo Park	689	00	LR
623116	1381	WOODLAND	AVE	Menlo Park	692	00	LR
622127	280	ARLINGTON	WAY	Menlo Park	679	01	LR
622174	313	BARTON	WAY	Menlo Park	686	01	LR
622304	503	BAY	RD	Menlo Park	673	01	LR
622230	546	BAY	RD	Menlo Park	678	01	LR
622342	614	BAY	RD	Menlo Park	678	01	LR
622273	126	BAYWOOD	AVE	Menlo Park	685	01	LR
622300	776	BERKELEY	AVE	Menlo Park	678	01	LR
622151	909	BERKELEY	AVE	Menlo Park	678	01	LR
622289	1031	BERKELEY	AVE	Menlo Park	674	01	LR
622326	121	BLACKBURN	AVE	Menlo Park	685	01	LR
622357	410	CENTRAL	AVE	Menlo Park	688	01	LR
622233	413	CENTRAL	AVE	Menlo Park	688	01	LR
622234	413	CENTRAL	AVE	Menlo Park	688	01	LR
622048	637	CENTRAL	AVE	Menlo Park	688	01	LR
622126	108	CHESTER	ST	Menlo Park	689	01	LR
622193	123	CHESTER	ST	Menlo Park	689	01	LR
622088	212	CHESTER	ST	Menlo Park	689	01	LR
622310	112	CLOVER	LN	Menlo Park	685	01	LR
622247	640	COLEMAN	AVE 3	Menlo Park	683	01	LR
622142	744	COLEMAN	AVE L	Menlo Park	683	01	LR
622091	750	COLEMAN	AVE 21	Menlo Park	683	01	LR
623466	808	COLEMAN	AVE 9	Menlo Park	683	01	LR
622320	810	COLEMAN	AVE 5	Menlo Park	683	01	LR
622203	840	COLEMAN	AVE 6	Menlo Park	683	01	LR
622076	840	COLEMAN	AVE 20	Menlo Park	683	01	LR
623500	858	COLEMAN	AVE D	Menlo Park	683	01	LR
621119	880	COLEMAN	AVE	Menlo Park	678	01	LR
622416	200	CONCORD	DR	Menlo Park	686	01	LR
622208	506	CONCORD	DR	Menlo Park	686	01	LR
622370	1047	DEL NORTE	AVE	Menlo Park	672	01	LR
622141	315	DURHAM	ST	Menlo Park	689	01	LR
622068	412	DURHAM	ST	Menlo Park	689	01	LR
622224	190	E OKEEFE	ST 12	Menlo Park	695	01	LR
622032	190	E OKEEFE	ST 5	Menlo Park	695	01	LR
622376	180	ELLIOTT	DR	Menlo Park	694	01	LR
622037	145	EMMA	LN	Menlo Park	692	01	LR
622379	430	FALK	CT	Menlo Park	694	01	LR
622197	420	FRENCH	CT	Menlo Park	693	01	LR
622171	440	GILBERT	AVE	Menlo Park	686	01	LR
622096	20	GLORIA	CIR	Menlo Park	680	01	LR
622056	135	GLORIA	CIR	Menlo Park	680	01	LR
622054	135	GLORIA	CIR	Menlo Park	680	01	LR

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
622380	408	GRAYSON	CT	Menlo Park	689	01	LR
622275	180	GREENOAKS	DR	Atherton	654	01	LR
622231	211	HAIGHT	ST	Menlo Park	689	01	LR
622361	115	HANNA	WAY	Menlo Park	680	01	LR
623415	9	HERITAGE	PL	Menlo Park	676	01	LR
622035	2	IRIS	LN	Menlo Park	672	01	LR
622161	421	LAUREL	AVE	Menlo Park	688	01	LR
622069	508	LAUREL	AVE	Menlo Park	688	01	LR
622315	720	LAUREL	AVE	Menlo Park	689	01	LR
622464	1004	MADERA	AVE 2	Menlo Park	675	01	LR
622281	1017	MADERA	AVE D	Menlo Park	675	01	LR
622363	276	MARMONA	DR	Menlo Park	685	01	LR
622204	201	MCKENDRY	DR	Menlo Park	685	01	LR
622183	209	MCKENDRY	DR	Menlo Park	685	01	LR
622198	1968	MENALTO	AVE	Menlo Park	691	01	LR
623497	1985	MENALTO	AVE	Menlo Park	688	01	LR
622059	2080	MENALTO	AVE	Menlo Park	689	01	LR
622060	2122	MENALTO	AVE	Menlo Park	689	01	LR
622237	2162	MENALTO	AVE	Menlo Park	689	01	LR
622053	1026	MENLO OAKS	DR	Menlo Park	673	01	LR
622232	1038	MENLO OAKS	DR	Menlo Park	673	01	LR
622122	340	NOVA	LN	Menlo Park	686	01	LR
622066	217	O CONNOR	ST	Menlo Park	694	01	LR
622435	148	OAK	CT	Menlo Park	691	01	LR
622086	230	OAK GROVE	AVE	Atherton	654	01	LR
622235	1033	OAKLAND	AVE	Menlo Park	673	01	LR
622302	1037	OAKLAND	AVE	Menlo Park	673	01	LR
622546	1055	OAKLAND	AVE	Menlo Park	673	01	LR
622176	407	OKEEFE	ST	Menlo Park	689	01	LR
622319	6	PEPPERWOOD	CT	Menlo Park	680	01	LR
622255	117	POPE	ST	Menlo Park	688	01	LR
622181	409	POPE	ST	Menlo Park	688	01	LR
622226	525	POPE	ST	Menlo Park	688	01	LR
622065	1030	RINGWOOD	AVE	Menlo Park	672	01	LR
622196	1044	RINGWOOD	AVE	Menlo Park	672	01	LR
622424	310	SANTA MARGARITA	AVE	Menlo Park	681	01	LR
623443	196	SANTA MONICA	AVE	Menlo Park	681	01	LR
622140	1048	SONOMA	AVE	Menlo Park	672	01	LR
622283	1062	SONOMA	AVE	Menlo Park	672	01	LR
622351	1059	TEHAMA	AVE	Menlo Park	672	01	LR
622043	1077	TEHAMA	AVE	Menlo Park	672	01	LR
622458	339	TRENTON	WAY	Menlo Park	686	01	LR
622378	143	WILLOW	RD	Menlo Park	681	01	LR
622390	170	WILLOW	RD	Menlo Park	685	01	LR
622375	318	WILLOW	RD	Menlo Park	685	01	LR
622120	600	WILLOW	RD 15	Menlo Park	698	01	LR
622223	928	WILLOW	RD A	Menlo Park	689	01	LR
622077	675	WOODLAND	AVE	Menlo Park	686	01	LR
622359	777	WOODLAND	AVE	Menlo Park	686	01	LR
622324	1321	WOODLAND	AVE	Menlo Park	692	01	LR
621069	1044	ALMANOR	AVE	Menlo Park	673	02	LR
621416	151	ARLINGTON	WAY	Menlo Park	679	02	LR

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
621262	480	ARLINGTON	WAY	Menlo Park	679	02	LR
621261	758	ARNOLD	WAY	Menlo Park	689	02	LR
621279	927	ARNOLD	WAY	Menlo Park	689	02	LR
621167	332	BARTON	WAY	Menlo Park	686	02	LR
621183	350	BARTON	WAY	Menlo Park	686	02	LR
621260	415	BAY	RD	Menlo Park	673	02	LR
621319	600	BERKELEY	AVE	Menlo Park	678	02	LR
621609	680	BERKELEY	AVE	Menlo Park	678	02	LR
621608	680	BERKELEY	AVE	Menlo Park	678	02	LR
621367	920	BERKELEY	AVE	Menlo Park	678	02	LR
621226	1016	BERKELEY	AVE	Menlo Park	674	02	LR
621425	121	BLACKBURN	AVE	Menlo Park	685	02	LR
621270	1977	BYERS	DR	Menlo Park	694	02	LR
620876	411	CENTRAL	AVE	Menlo Park	688	02	LR
621281	120	CHESTER	ST	Menlo Park	689	02	LR
621252	227	CHESTER	ST	Menlo Park	689	02	LR
622381	109	CLOVER	LN	Menlo Park	685	02	LR
621362	981	COLBY	AVE	Menlo Park	678	02	LR
622422	4	COLEMAN	PL A	Menlo Park	683	02	LR
622400	10	COLEMAN	PL 5	Menlo Park	683	02	LR
621669	10	COLEMAN	PL 3	Menlo Park	683	02	LR
621530	640	COLEMAN	AVE 3	Menlo Park	683	02	LR
621209	660	COLEMAN	AVE	Menlo Park	683	02	LR
621395	700	COLEMAN	AVE 6	Menlo Park	683	02	LR
621496	700	COLEMAN	AVE 3	Menlo Park	683	02	LR
621463	720	COLEMAN	AVE I	Menlo Park	683	02	LR
623468	744	COLEMAN	AVE H	Menlo Park	683	02	LR
621332	750	COLEMAN	AVE 9	Menlo Park	683	02	LR
623452	806	COLEMAN	AVE 23	Menlo Park	683	02	LR
621627	806	COLEMAN	AVE 5	Menlo Park	683	02	LR
621304	808	COLEMAN	AVE 4	Menlo Park	683	02	LR
621192	850	COLEMAN	AVE 9	Menlo Park	683	02	LR
620816	880	COLEMAN	AVE	Menlo Park	678	02	LR
621417	951	COLEMAN	AVE	Menlo Park	679	02	LR
622417	200	CONCORD	DR	Menlo Park	686	02	LR
621243	311	CONCORD	DR	Menlo Park	686	02	LR
621269	323	CONCORD	DR	Menlo Park	686	02	LR
621449	332	CONCORD	DR	Menlo Park	686	02	LR
621306	335	CONCORD	DR	Menlo Park	686	02	LR
621361	515	CONCORD	DR	Menlo Park	686	02	LR
621309	204	DURHAM	ST	Menlo Park	689	02	LR
621205	415	DURHAM	ST	Menlo Park	689	02	LR
621129	227	ELLIOTT	DR	Menlo Park	694	02	LR
621326	539	GILBERT	AVE	Menlo Park	685	02	LR
623516	610	GILBERT	AVE 33	Menlo Park	682	02	LR
621239	787	GILBERT	AVE	Menlo Park	681	02	LR
621405	327	GRAYSON	CT	Menlo Park	689	02	LR
622441	120	HAIGHT	ST	Menlo Park	689	02	LR
621442	228	HAIGHT	ST	Menlo Park	689	02	LR
621526	200	HANNA	WAY	Menlo Park	680	02	LR
621527	200	HANNA	WAY	Menlo Park	680	02	LR
621158	2	IRIS	LN	Menlo Park	672	02	LR

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
621195	5	IRIS	LN	Menlo Park	672	02	LR
621220	419	LAUREL	AVE	Menlo Park	688	02	LR
621456	540	LAUREL	AVE	Menlo Park	688	02	LR
621396	224	LEXINGTON	DR	Menlo Park	686	02	LR
621341	1004	MADERA	AVE 1	Menlo Park	675	02	LR
621613	209	MARMONA	DR	Menlo Park	685	02	LR
621294	241	MARMONA	DR	Menlo Park	685	02	LR
621200	319	MARMONA	DR	Menlo Park	685	02	LR
621373	213	MCKENDRY	DR	Menlo Park	685	02	LR
621233	368	MCKENDRY	DR	Menlo Park	685	02	LR
621207	1971	MENALTO	AVE	Menlo Park	688	02	LR
621222	2048	MENALTO	AVE	Menlo Park	689	02	LR
621230	420	MENLO OAKS	DR	Menlo Park	679	02	LR
621175	591	MENLO OAKS	DR	Menlo Park	678	02	LR
621389	320	NOVA	LN	Menlo Park	686	02	LR
621263	370	NOVA	LN	Menlo Park	686	02	LR
621350	124	O CONNOR	ST	Menlo Park	694	02	LR
621329	484	O CONNOR	ST	Menlo Park	697	02	LR
621414	431	OAK	CT	Menlo Park	693	02	LR
621495	218	OAK GROVE	AVE	Atherton	654	02	LR
621335	269	OAK GROVE	AVE	Atherton	654	02	LR
621447	307	OKEEFE	ST	Menlo Park	689	02	LR
621454	404	OKEEFE	ST	Menlo Park	689	02	LR
621218	504	OKEEFE	ST	Menlo Park	689	02	LR
621631	570	OKEEFE	ST	Menlo Park	689	02	LR
621201	2	PARKWOOD	DR	Atherton	654	02	LR
621166	210	POPE	ST	Menlo Park	688	02	LR
621349	725	REGAL	CT	Menlo Park	689	02	LR
621399	440	RINGWOOD	AVE	Menlo Park	679	02	LR
621462	680	RINGWOOD	AVE	Menlo Park	678	02	LR
621152	1033	RINGWOOD	AVE	Menlo Park	672	02	LR
623508	1036	RINGWOOD	AVE	Menlo Park	672	02	LR
621210	1059	RINGWOOD	AVE	Menlo Park	672	02	LR
621423	260	SANTA MONICA	AVE	Menlo Park	681	02	LR
621383	1011	SEVIER	AVE	Menlo Park	674	02	LR
621403	413	SHIRLEY	WAY	Menlo Park	686	02	LR
621363	315	TRENTON	WAY	Menlo Park	686	02	LR
621348	347	TRENTON	WAY	Menlo Park	686	02	LR
621189	214	WALNUT	ST	Menlo Park	688	02	LR
621434	277	WILLOW	RD A	Menlo Park	681	02	LR
621337	600	WILLOW	RD 16	Menlo Park	698	02	LR
621445	600	WILLOW	RD 11	Menlo Park	698	02	LR
621249	1032	WINDERMERE	AVE	Menlo Park	674	02	LR
621391	627	WOODLAND	AVE	Menlo Park	686	02	LR
621360	812	WOODLAND	AVE	Menlo Park	687	02	LR
621328	838	WOODLAND	AVE	Menlo Park	687	02	LR
621448	1285	WOODLAND	AVE	Menlo Park	692	02	LR
620918	1048	ALMANOR	AVE	Menlo Park	673	03	LR
620712	280	ARLINGTON	WAY	Menlo Park	679	03	LR
620863	281	ARLINGTON	WAY	Menlo Park	679	03	LR
620840	411	ARLINGTON	WAY	Menlo Park	679	03	LR
621014	816	ARNOLD	WAY	Menlo Park	689	03	LR

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
620709	619	BAY	RD	Menlo Park	674	03	LR
620842	909	BERKELEY	AVE	Menlo Park	678	03	LR
620817	940	BERKELEY	AVE	Menlo Park	678	03	LR
620851	1019	BERKELEY	AVE	Menlo Park	674	03	LR
620883	1031	BERKELEY	AVE	Menlo Park	674	03	LR
620774	214	BLACKBURN	AVE	Menlo Park	686	03	LR
620897	511	CENTRAL	AVE	Menlo Park	688	03	LR
620831	716	CENTRAL	AVE	Menlo Park	689	03	LR
620919	724	CENTRAL	AVE A	Menlo Park	689	03	LR
620839	108	CHESTER	ST	Menlo Park	689	03	LR
620781	119	CHESTER	ST	Menlo Park	689	03	LR
620984	423	CHESTER	ST	Menlo Park	689	03	LR
622022	2	COLEMAN	PL A	Menlo Park	683	03	LR
621118	10	COLEMAN	PL 2	Menlo Park	683	03	LR
621670	10	COLEMAN	PL 3	Menlo Park	683	03	LR
620837	689	COLEMAN	AVE	Menlo Park	681	03	LR
621146	710	COLEMAN	AVE 5	Menlo Park	683	03	LR
620866	710	COLEMAN	AVE 2	Menlo Park	683	03	LR
621602	744	COLEMAN	AVE B	Menlo Park	683	03	LR
620879	744	COLEMAN	AVE P	Menlo Park	683	03	LR
623453	806	COLEMAN	AVE 23	Menlo Park	683	03	LR
511319	437	CONCORD	DR	Menlo Park	686	03	LR
511340	503	CONCORD	DR	Menlo Park	686	03	LR
620864	506	CONCORD	DR	Menlo Park	686	03	LR
620835	510	CONCORD	DR	Menlo Park	686	03	LR
620873	515	CONCORD	DR	Menlo Park	686	03	LR
620782	90	DE BELL	DR	Atherton	654	03	LR
620882	1051	DEL NORTE	AVE	Menlo Park	672	03	LR
620854	209	DURHAM	ST	Menlo Park	689	03	LR
620710	412	DURHAM	ST	Menlo Park	689	03	LR
620849	56	EDGE	RD	Atherton	654	03	LR
620901	5	ELMWOOD	PL	Menlo Park	680	03	LR
620911	72	ENCINO	RD	Atherton	654	03	LR
621500	440	GILBERT	AVE	Menlo Park	686	03	LR
620872	723	GILBERT	AVE	Menlo Park	681	03	LR
621476	336	GRAYSON	CT	Menlo Park	689	03	LR
620909	119	HAIGHT	ST	Menlo Park	689	03	LR
620899	140	HANNA	WAY	Menlo Park	680	03	LR
620838	205	HANNA	WAY	Menlo Park	680	03	LR
621584	7	IRIS	LN	Menlo Park	672	03	LR
623492	121	LAUREL	AVE	Menlo Park	688	03	LR
620823	508	LAUREL	AVE	Menlo Park	688	03	LR
620819	728	LAUREL	AVE	Menlo Park	689	03	LR
620869	811	LAUREL	AVE	Menlo Park	689	03	LR
620706	820	LAUREL	AVE	Menlo Park	689	03	LR
620705	820	LAUREL	AVE	Menlo Park	689	03	LR
620871	339	LEXINGTON	DR	Menlo Park	686	03	LR
620501	209	MARMONA	DR	Menlo Park	685	03	LR
620916	276	MARMONA	DR	Menlo Park	685	03	LR
620833	385	MCKENDRY	DR	Menlo Park	685	03	LR
620903	1958	MENALTO	AVE 12	Menlo Park	691	03	LR
620862	1968	MENALTO	AVE	Menlo Park	691	03	LR

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
620707	2122	MENALTO	AVE	Menlo Park	689	03	LR
620888	807	MENLO OAKS	DR	Menlo Park	678	03	LR
620828	1048	MENLO OAKS	DR	Menlo Park	673	03	LR
620900	658	NASH	AVE	Menlo Park	681	03	LR
620894	123	O CONNOR	ST	Menlo Park	694	03	LR
620783	342	O CONNOR	ST	Menlo Park	694	03	LR
620509	182	OAK	CT	Menlo Park	691	03	LR
620711	304	OAK	CT	Menlo Park	693	03	LR
620891	431	OAK	CT	Menlo Park	693	03	LR
620834	469	OAK	CT	Menlo Park	693	03	LR
620856	485	OAK	CT	Menlo Park	693	03	LR
620878	1039	OAKLAND	AVE	Menlo Park	673	03	LR
620858	1052	OAKLAND	AVE	Menlo Park	673	03	LR
620780	303	OAKWOOD	PL	Menlo Park	672	03	LR
620865	308	OAKWOOD	PL	Menlo Park	672	03	LR
620912	318	OAKWOOD	PL	Menlo Park	672	03	LR
620870	101	OKEEFE	ST	Menlo Park	689	03	LR
620778	4	PEPPERWOOD	CT	Menlo Park	680	03	LR
620773	305	POPE	ST	Menlo Park	688	03	LR
620868	525	POPE	ST	Menlo Park	688	03	LR
620880	716	REGAL	CT	Menlo Park	689	03	LR
621065	725	REGAL	CT	Menlo Park	689	03	LR
620859	260	RINGWOOD	AVE	Menlo Park	679	03	LR
620861	1044	RINGWOOD	AVE	Menlo Park	672	03	LR
620830	1059	RINGWOOD	AVE	Menlo Park	672	03	LR
511258	178	SAN ANDREAS	DR	Menlo Park	681	03	LR
511257	178	SAN ANDREAS	DR	Menlo Park	681	03	LR
620910	242	SANTA MARGARITA	AVE	Menlo Park	681	03	LR
620715	296	SANTA MONICA	AVE	Menlo Park	681	03	LR
621117	1041	SONOMA	AVE	Menlo Park	672	03	LR
621072	1077	TEHAMA	AVE	Menlo Park	672	03	LR
620847	332	TRENTON	WAY	Menlo Park	686	03	LR
622538	163	WILLOW	RD	Menlo Park	681	03	LR
620852	247	WILLOW	RD	Menlo Park	681	03	LR
620848	565	WILLOW	RD 27	Menlo Park	683	03	LR
620844	1011	WINDERMERE	AVE	Menlo Park	674	03	LR
620843	1011	WINDERMERE	AVE	Menlo Park	674	03	LR
622527	95	WISTERIA	WAY	Atherton	654	03	LR
511358	627	WOODLAND	AVE	Menlo Park	686	03	LR
620914	777	WOODLAND	AVE	Menlo Park	686	03	LR
620714	1231	WOODLAND	AVE	Menlo Park	690	03	LR
623318	842	COLEMAN	AVE 2	Menlo Park	683	00	OK
623188	437	CONCORD	DR	Menlo Park	686	00	OK
623301	237	WILLOW	RD	Menlo Park	681	00	OK
623380	706	WOODLAND	AVE	Menlo Park	687	00	OK
622339	354	MCKENDRY	PL	Menlo Park	685	01	OK
622079	164	OAK	CT	Menlo Park	691	01	OK
621275	1007	SEVIER	AVE	Menlo Park	674	02	OK
621400	237	WILLOW	RD	Menlo Park	681	02	OK
621412	600	WILLOW	RD 22	Menlo Park	698	02	OK
620829	164	OAK	CT	Menlo Park	691	03	OK
621673	1	TOYON	RD	Atherton	654	03	OK

STUDENT_ID	STRNUM	STRNAME	STRT\APT	CITY	AREA	GRADE	SCHOOL
620482	842	COLEMAN	AVE 2	Menlo Park	683	04	OK
511253	526	LAUREL	AVE	Menlo Park	688	04	OK
611321	600	WILLOW	RD 22	Menlo Park	698	04	OK
611299	866	WOODLAND	CT	Menlo Park	687	04	OK
621674	1	TOYON	RD	Atherton	654	05	OK

ATTACHMENT 3

LOS CALCULATION SHEETS

EXISTING CONDITION

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Ravenswood/Middlefield

Cycle (sec): 100 Critical Vol./Cap.(X): 1.086

Loss Time (sec): 0 Average Delay (sec/veh): 76.2

Optimal Cycle: 180 Level Of Service: E

Street Name: Ravenswood Middlefield

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: AddLane Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 1 0 0

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Volume Module:

Base Vol: 97 0 653 0 0 0 0 0 449 84 473 401 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 97 0 653 0 0 0 0 0 449 84 473 401 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.93 1.00 0.87 1.00 1.00 1.00 1.00 0.93 0.81 0.86 0.84 1.00

PHF Volume: 104 0 751 0 0 0 0 0 483 104 550 477 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 104 0 751 0 0 0 0 0 483 104 550 477 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 104 0 751 0 0 0 0 0 483 104 550 477 0

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 1.00 0.98 0.98 0.95 1.00 1.00

Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.82 0.18 1.00 1.00 0.00

Final Sat.: 1805 0 1615 0 0 0 0 0 1527 328 1805 1900 0

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Capacity Analysis Module:

Vol/Sat: 0.06 0.00 0.46 0.00 0.00 0.00 0.00 0.32 0.32 0.30 0.25 0.00

Crit Moves: **** **** ****

Green/Cycle: 0.43 0.00 0.43 0.00 0.00 0.00 0.00 0.29 0.29 0.28 0.57 0.00

Volume/Cap: 0.13 0.00 1.09 0.00 0.00 0.00 0.00 1.09 1.09 1.09 0.44 0.00

Uniform Del: 17.4 0.0 28.6 0.0 0.0 0.0 0.0 35.4 35.4 36.0 12.2 0.0

IncrementDel: 0.1 0.0 59.8 0.0 0.0 0.0 0.0 64.0 64.0 65.2 0.3 0.0

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00

Delay/Veh: 17.4 0.0 88.4 0.0 0.0 0.0 0.0 99.4 99.4 101.2 12.5 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 17.4 0.0 88.4 0.0 0.0 0.0 0.0 99.4 99.4 101.2 12.5 0.0

LOS by Move: B A F A A A A F F F B A

HCM2kAvgQ: 2 0 35 0 0 0 0 28 28 27 8 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 Ringwood/Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.873

Loss Time (sec): 0 Average Delay (sec/veh): 28.6

Optimal Cycle: 0 Level Of Service: D

Street Name: Ringwood Bay

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module:

Base Vol: 82 7 122 24 53 8 8 194 221 240 105 9

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 82 7 122 24 53 8 8 194 221 240 105 9

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.66 0.44 0.80 0.67 0.75 0.50 0.63 0.88 0.83 0.78 0.66 0.50

PHF Volume: 125 16 152 36 71 16 13 220 268 308 160 18

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 125 16 152 36 71 16 13 220 268 308 160 18

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 125 16 152 36 71 16 13 220 268 308 160 18

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.43 0.05 0.52 0.29 0.58 0.13 0.03 0.44 0.53 0.63 0.33 0.04

Final Sat.: 210 27 254 124 244 55 15 259 316 353 183 21

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Capacity Analysis Module:

Vol/Sat: 0.60 0.60 0.60 0.29 0.29 0.29 0.85 0.85 0.85 0.87 0.87 0.87

Crit Moves: **** **** **** ****

Delay/Veh: 17.7 17.7 17.7 13.1 13.1 13.1 31.4 31.4 31.4 36.3 36.3 36.3

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 17.7 17.7 17.7 13.1 13.1 13.1 31.4 31.4 31.4 36.3 36.3 36.3

LOS by Move: C C C B B B D D D E E E

ApproachDel: 17.7 13.1 31.4 36.3

Delay Adj: 1.00 1.00 1.00

ApprAdjDel: 17.7 13.1 31.4 36.3

LOS by Appr: C B D E

AllWayAvgQ: 1.1 1.1 1.1 0.3 0.3 0.3 3.7 3.7 3.7 4.2 4.2 4.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Ringwood/Coleman

Cycle (sec): 100 Critical Vol./Cap. (X): 0.799

Loss Time (sec): 0 Average Delay (sec/veh): 19.1

Optimal Cycle: 0 Level Of Service: C

Street Name: Ringwood Coleman

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 0 1 0 0 1 0 0 0 0 0

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Volume Module:

Base Vol: 0 134 89 92 304 0 0 0 0 97 0 127

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 134 89 92 304 0 0 0 0 97 0 127

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 0.96 0.72 0.59 0.83 1.00 1.00 1.00 1.00 0.66 1.00 0.57

PHF Volume: 0 140 124 156 368 0 0 0 0 148 0 224

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 140 124 156 368 0 0 0 0 148 0 224

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 140 124 156 368 0 0 0 0 148 0 224

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.53 0.47 0.30 0.70 0.00 0.00 0.00 0.00 0.40 0.00 0.60

Final Sat.: 0 333 295 195 460 0 0 0 0 246 0 373

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Capacity Analysis Module:

Vol/Sat: xxxx 0.42 0.42 0.80 0.80 xxxx xxxx xxxx xxxx 0.60 xxxx 0.60

Crit Moves: **** ****

Delay/Veh: 0.0 12.0 12.0 25.3 25.3 0.0 0.0 0.0 0.0 15.6 0.0 15.6

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 12.0 12.0 25.3 25.3 0.0 0.0 0.0 0.0 15.6 0.0 15.6

LOS by Move: * B B D D * * * * C * C

ApproachDel: 12.0 25.3 xxxxxx 15.6

Delay Adj: 1.00 1.00 xxxxxx 1.00

ApprAdjDel: 12.0 25.3 xxxxxx 15.6

LOS by Appr: B D * C

AllWayAvgQ: 0.6 0.6 0.6 3.1 3.1 3.1 0.0 0.0 0.0 1.2 1.2 1.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 Ringwood/Middlefield

Cycle (sec): 100 Critical Vol./Cap. (X): 0.525
 Loss Time (sec): 0 Average Delay (sec/veh): 22.0
 Optimal Cycle: 39 Level Of Service: C

Ringwood						Middlefield						
North Bound			South Bound			East Bound			West Bound			
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	9	4	3	135	47	278	222	766	82	44	596	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	4	3	135	47	278	222	766	82	44	596	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.45	0.50	0.38	0.82	0.84	0.94	0.79	0.90	0.89	0.69	0.89	0.69
PHF Volume:	20	8	8	164	56	296	280	852	92	64	673	140
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	8	8	164	56	296	280	852	92	64	673	140
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	20	8	8	164	56	296	280	852	92	64	673	140

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.45	0.93	0.93	0.77	0.77	0.85	0.95	0.94	0.94	0.95	0.95	0.85
Lanes:	1.00	0.50	0.50	0.75	0.25	1.00	1.00	1.81	0.19	1.00	2.00	1.00
Final Sat.:	863	879	879	1096	374	1615	1805	3209	347	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.02	0.01	0.01	0.15	0.15	0.18	0.16	0.27	0.27	0.04	0.19	0.09
Crit Moves:						****	****				****	
Green/Cycle:	0.35	0.35	0.35	0.35	0.35	0.35	0.30	0.57	0.57	0.08	0.35	0.35
Volume/Cap:	0.07	0.03	0.03	0.43	0.43	0.52	0.52	0.46	0.46	0.46	0.52	0.24
Uniform Del:	21.7	21.4	21.4	24.9	24.9	25.9	29.4	12.3	12.3	44.2	25.6	22.8
IncrementDel:	0.1	0.0	0.0	0.6	0.6	0.9	1.0	0.2	0.2	2.4	0.4	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	21.8	21.4	21.4	25.5	25.5	26.8	30.3	12.5	12.5	46.6	26.0	23.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.8	21.4	21.4	25.5	25.5	26.8	30.3	12.5	12.5	46.6	26.0	23.0
LOS by Move:	C	C	C	C	C	C	C	B	B	D	C	C
HCM2kAvgQ:	0	0	0	5	5	8	8	9	9	2	9	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 Willow/Bay

Cycle (sec): 100 Critical Vol./Cap.(X): 0.611
 Loss Time (sec): 0 Average Delay (sec/veh): 15.5
 Optimal Cycle: 59 Level Of Service: B

Willow						Bay							
North Bound			South Bound			East Bound			West Bound				
Approach:													
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Split Phase			Split Phase			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	0	1	1	0	0	0	1	0	0

Volume Module:												
Base Vol:	77	1308	0	0	1093	299	343	0	78	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	1308	0	0	1093	299	343	0	78	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.77	0.98	1.00	1.00	0.87	0.69	0.91	1.00	0.70	1.00	1.00	1.00
PHF Volume:	100	1329	0	0	1252	432	377	0	112	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	1329	0	0	1252	432	377	0	112	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	100	1329	0	0	1252	432	377	0	112	0	0	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0

Capacity Analysis Module:												
Vol/Sat:	0.06	0.37	0.00	0.00	0.35	0.27	0.21	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green/Cycle:	0.09	0.66	0.00	0.00	0.57	0.57	0.34	0.00	0.34	0.00	0.00	0.00
Volume/Cap:	0.61	0.56	0.00	0.00	0.61	0.47	0.61	0.00	0.20	0.00	0.00	0.00
Uniform Del:	43.8	9.3	0.0	0.0	14.3	12.8	27.4	0.0	23.3	0.0	0.0	0.0
IncrementDel:	6.6	0.3	0.0	0.0	0.5	0.4	1.8	0.0	0.2	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	50.4	9.6	0.0	0.0	14.9	13.2	29.2	0.0	23.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.4	9.6	0.0	0.0	14.9	13.2	29.2	0.0	23.4	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	4	12	0	0	14	8	10	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 Willow/Chester

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: D[25.1]

Street Name:	Willow				Chester				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	0	1	1	0	0	0	0	1

Volume Module:

Base Vol:	0	1290	10	152	1244	0	0	0	0	0	174
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1290	10	152	1244	0	0	0	0	0	174
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	0.97	0.83	0.78	0.98	1.00	1.00	1.00	1.00	1.00	0.76
PHF Volume:	0	1335	12	196	1276	0	0	0	0	0	228
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1335	12	196	1276	0	0	0	0	0	228

Critical Gap Module:

Critical Gap:xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.9
FollowUpTim:xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.3

Capacity Module:

Cnflct Vol:	xxxxx	xxxxx	xxxxx	1347	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	674
Potent Cap.:	xxxxx	xxxxx	xxxxx	518	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	402
Move Cap.:	xxxxx	xxxxx	xxxxx	518	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	402
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.38	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.57

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	1.8	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.4
Control Del:xxxxx	xxxxx	xxxxx	xxxxx	16.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	25.1
LOS by Move:	*	*	*	C	*	*	*	*	*	*	*	D
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			25.1		
ApproachLOS:	*			*			*			D		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Willow/Durham

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656

Loss Time (sec): 0 Average Delay (sec/veh): 11.9

Optimal Cycle: 54 Level Of Service: B

Street Name: Willow Durham

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 0 1 0 1 0

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Volume Module:

Base Vol: 34 1072 11 29 743 95 54 5 6 62 18 109

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 34 1072 11 29 743 95 54 5 6 62 18 109

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.71 0.95 0.69 0.60 0.87 0.77 0.75 0.42 0.50 0.78 0.64 0.74

PHF Volume: 48 1125 16 48 852 124 72 12 12 80 28 148

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 48 1125 16 48 852 124 72 12 12 80 28 148

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 48 1125 16 48 852 124 72 12 12 80 28 148

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 0.95 0.95 0.95 0.98 0.98 0.46 0.46 0.85 0.52 0.87 0.87

Lanes: 1.00 1.97 0.03 1.00 0.87 0.13 0.86 0.14 1.00 1.00 0.16 0.84

Final Sat.: 1805 3552 51 1805 1627 237 741 124 1615 994 264 1397

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Capacity Analysis Module:

Vol/Sat: 0.03 0.32 0.32 0.03 0.52 0.52 0.10 0.10 0.01 0.08 0.11 0.11

Crit Moves: ****

Green/Cycle: 0.04 0.77 0.77 0.06 0.80 0.80 0.16 0.16 0.16 0.16 0.16 0.16

Volume/Cap: 0.66 0.41 0.41 0.41 0.66 0.66 0.60 0.60 0.05 0.50 0.66 0.66

Uniform Del: 47.3 3.8 3.8 44.9 4.3 4.3 38.9 38.9 35.4 38.2 39.3 39.3

IncrementDel: 19.6 0.1 0.1 2.3 1.1 1.1 7.2 7.2 0.1 2.4 5.8 5.8

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Delay/Veh: 66.9 3.9 3.9 47.2 5.4 5.4 46.1 46.1 35.5 40.6 45.1 45.1

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 66.9 3.9 3.9 47.2 5.4 5.4 46.1 46.1 35.5 40.6 45.1 45.1

LOS by Move: E A A D A A D D D D D D

HCM2kAvgQ: 3 6 6 2 13 13 3 3 0 3 6 6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #8 Willow/O'Keefe

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: F[77.7]

Street Name:	Willow						O'Keefe					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:	Willow			Willow			O'Keefe			O'Keefe		
Base Vol:	0	1133	41	30	1091	0	0	0	16	0	51	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	1133	41	30	1091	0	0	0	16	0	51	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	0.96	0.79	0.63	0.92	1.00	1.00	1.00	0.80	1.00	0.75	
PHF Volume:	0	1184	52	48	1185	0	0	0	20	0	68	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	0	1184	52	48	1185	0	0	0	20	0	68	

Critical Gap Module:	Willow			Willow			O'Keefe			O'Keefe		
Critical Gp:xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.4	xxxxx	6.2
FollowUpTim:xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	3.5	xxxxx	3.3

Capacity Module:	Willow			Willow			O'Keefe			O'Keefe		
Cnflct Vol:	xxxxx	xxxxx	xxxxx	1236	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2491	xxxxx	1210
Potent Cap.:	xxxxx	xxxxx	xxxxx	571	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	33	xxxxx	225
Move Cap.:	xxxxx	xxxxx	xxxxx	571	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	31	xxxxx	225
Volume/Cap:	xxxxx	xxxxx	xxxxx	0.08	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.65	xxxxx	0.30

Level Of Service Module:	Willow			Willow			O'Keefe			O'Keefe		
2Way95thQ:	xxxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	1.2
Control Del:xxxxx	xxxxx	xxxxx	xxxxx	11.9	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	247.1	xxxxx	27.8
LOS by Move:	*	*	*	B	*	*	*	*	*	F	*	D
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			77.7		
ApproachLOS:	*			*			*			F		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Willow/Coleman

Cycle (sec): 100 Critical Vol./Cap. (X): 0.778

Loss Time (sec): 0 Average Delay (sec/veh): 15.8

Optimal Cycle: 65 Level Of Service: B

Street Name: Willow Coleman

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 0 1 0 0

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Volume Module:

Base Vol: 2 684 77 26 913 4 189 6 64 7 4 4

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 2 684 77 26 913 4 189 6 64 7 4 4

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.47 0.77 0.75 0.68 0.88 0.47 0.84 0.47 0.75 0.41 0.47 0.94

PHF Volume: 4 894 102 38 1043 9 226 13 85 17 9 4

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 4 894 102 38 1043 9 226 13 85 17 9 4

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 4 894 102 38 1043 9 226 13 85 17 9 4

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.12 0.99 0.99 0.15 1.00 1.00 0.76 0.76 0.76 0.84 0.84 0.84

Lanes: 1.00 0.90 0.10 1.00 0.99 0.01 0.70 0.04 0.26 0.57 0.29 0.14

Final Sat.: 236 1680 192 289 1883 15 1007 57 380 910 455 227

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Capacity Analysis Module:

Vol/Sat: 0.02 0.53 0.53 0.13 0.55 0.55 0.22 0.22 0.22 0.02 0.02 0.02

Crit Moves: **** *

Green/Cycle: 0.71 0.71 0.71 0.71 0.71 0.71 0.29 0.29 0.29 0.29 0.29 0.29

Volume/Cap: 0.03 0.75 0.75 0.19 0.78 0.78 0.78 0.78 0.78 0.06 0.06 0.06

Uniform Del: 4.2 8.9 8.9 4.8 9.3 9.3 32.7 32.7 32.7 25.8 25.8 25.8

IncrementDel: 0.1 2.4 2.4 0.4 2.9 2.9 9.0 9.0 9.0 0.1 0.1 0.1

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Delay/Veh: 4.3 11.3 11.3 5.2 12.2 12.2 41.7 41.7 41.7 25.9 25.9 25.9

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 4.3 11.3 11.3 5.2 12.2 12.2 41.7 41.7 41.7 25.9 25.9 25.9

LOS by Move: A B B A B B D D D C C C

HCM2kAvgQ: 0 20 20 1 22 22 11 11 11 1 1 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Willow/Gilbert

Cycle (sec): 100 Critical Vol./Cap. (X): 0.620
 Loss Time (sec): 0 Average Delay (sec/veh): 12.3
 Optimal Cycle: 38 Level Of Service: B

Willow						Gilbert						
North Bound			South Bound			East Bound			West Bound			
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	5	821	52	31	708	3	106	100	90	38	37	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	821	52	31	708	3	106	100	90	38	37	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.42	0.90	0.65	0.86	0.86	0.75	0.70	0.71	0.80	0.73	0.62	0.44
PHF Volume:	12	908	80	36	828	4	152	140	112	52	60	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	908	80	36	828	4	152	140	112	52	60	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	12	908	80	36	828	4	152	140	112	52	60	16

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.26	1.00	0.85	0.23	1.00	1.00	0.60	0.93	0.93	0.27	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.99	0.01	1.00	0.56	0.44	1.00	0.79	0.21
Final Sat.:	490	1900	1615	431	1889	9	1144	985	788	513	1454	387

Capacity Analysis Module:

Vol/Sat:	0.02	0.48	0.05	0.08	0.44	0.44	0.13	0.14	0.14	0.10	0.04	0.04
Crit Moves:	****						****					
Green/Cycle:	0.77	0.77	0.77	0.77	0.77	0.77	0.23	0.23	0.23	0.23	0.23	0.23
Volume/Cap:	0.03	0.62	0.06	0.11	0.57	0.57	0.58	0.62	0.62	0.44	0.18	0.18
Uniform Del:	2.7	5.0	2.8	2.9	4.7	4.7	34.3	34.6	34.6	33.1	31.0	31.0
IncrementDel:	0.0	0.8	0.0	0.1	0.5	0.5	3.2	2.9	2.9	2.6	0.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	2.7	5.9	2.8	3.0	5.2	5.2	37.5	37.6	37.6	35.7	31.2	31.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	2.7	5.9	2.8	3.0	5.2	5.2	37.5	37.6	37.6	35.7	31.2	31.2
LOS by Move:	A	A	A	A	A	A	D	D	D	D	C	C
HCM2kAvgQ:	0	13	1	0	11	11	5	8	8	2	2	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 Willow/Middlefield

Cycle (sec): 100 Critical Vol./Cap. (X): 1.133
 Loss Time (sec): 0 Average Delay (sec/veh): 66.4
 Optimal Cycle: 180 Level Of Service: E

Willow						Middlefield						
North Bound			South Bound			East Bound			West Bound			
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	1	0	1	0	1	0

Volume Module:												
Base Vol:	21	173	119	386	64	349	410	422	15	75	411	290
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	173	119	386	64	349	410	422	15	75	411	290
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.58	0.85	0.85	0.85	0.89	0.93	0.84	0.87	0.63	0.75	0.93	0.88
PHF Volume:	36	204	140	452	72	376	488	484	24	100	440	328
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	204	140	452	72	376	488	484	24	100	440	328
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	204	140	452	72	376	488	484	24	100	440	328

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.96	0.96	0.85	0.22	0.22	0.22	0.43	0.95	0.85
Lanes:	1.00	1.00	1.00	1.72	0.28	1.00	1.47	1.46	0.07	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	3143	501	1615	616	611	30	809	3610	1615

Capacity Analysis Module:												
Vol/Sat:	0.02	0.11	0.09	0.14	0.14	0.23	0.79	0.79	0.79	0.12	0.12	0.20
Crit Moves:	****			****			****					
Green/Cycle:	0.09	0.09	0.09	0.21	0.21	0.21	0.70	0.70	0.70	0.70	0.70	0.70
Volume/Cap:	0.21	1.13	0.91	0.70	0.70	1.13	1.13	1.13	1.13	0.18	0.17	0.29
Uniform Del:	41.8	45.3	44.9	36.9	36.9	39.7	15.0	15.0	15.0	5.1	5.1	5.7
IncrementDel:	0.6	107	48.2	3.0	3.0	90.4	73.9	73.9	73.9	0.1	0.0	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	42.4	153	93.1	39.8	39.8	130.1	88.9	88.9	88.9	5.3	5.2	5.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.4	153	93.1	39.8	39.8	130.1	88.9	88.9	88.9	5.3	5.2	5.8
LOS by Move:	D	F	F	D	D	F	F	F	F	A	A	A
HCM2kAvgQ:	1	12	7	9	9	21	19	19	19	1	2	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #12 Menalto/Durham-Donohoe

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: B[10.9]

Street Name:	Menalto						Durham-Donohoe					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	0 1 0	0	0	1! 0 0

Volume Module:	Menalto			Menalto			Durham-Donohoe			Durham-Donohoe		
Base Vol:	49	28	6	1	58	11	0	5	26	26	16	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	28	6	1	58	11	0	5	26	26	16	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.72	0.78	0.50	0.25	0.76	0.69	1.00	0.63	0.93	0.93	1.00	0.50
PHF Volume:	68	36	12	4	76	16	0	8	28	28	16	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	68	36	12	4	76	16	0	8	28	28	16	12

Critical Gap Module:	Menalto			Menalto			Durham-Donohoe			Durham-Donohoe		
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	3.3

Capacity Module:	Menalto			Menalto			Durham-Donohoe			Durham-Donohoe		
Cnflct Vol:	92	xxxx	xxxxx	48	xxxx	xxxxx	xxxxx	276	84	288	278	42
Potent Cap.:	1515	xxxx	xxxxx	1572	xxxx	xxxxx	xxxxx	635	981	668	633	1034
Move Cap.:	1515	xxxx	xxxxx	1572	xxxx	xxxxx	xxxxx	604	981	619	602	1034
Volume/Cap:	0.04	xxxx	xxxx	0.00	xxxx	xxxx	xxxxx	0.01	0.03	0.05	0.03	0.01

Level Of Service Module:	Menalto			Menalto			Durham-Donohoe			Durham-Donohoe		
2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	7.5	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	861	xxxx	671	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.1	xxxxx	0.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.4	xxxxx	10.9	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	A	*	B	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	9.4	xxxxxxx	10.9	xxxxxxx	xxxxxxx	xxxxxxx
ApproachLOS:	*	*	*	*	*	*	A	*	B	*	B	*

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #13 Menalto/O'Keefe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.285

Loss Time (sec): 0 Average Delay (sec/veh): 8.9

Optimal Cycle: 0 Level Of Service: A

Street Name: Menalto O'Keefe

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module:

Base Vol: 17 62 23 17 78 6 4 47 10 19 92 27

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 17 62 23 17 78 6 4 47 10 19 92 27

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.53 0.82 0.82 0.61 0.70 0.50 0.50 0.73 0.42 0.95 0.59 0.75

PHF Volume: 32 76 28 28 112 12 8 64 24 20 156 36

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 32 76 28 28 112 12 8 64 24 20 156 36

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 32 76 28 28 112 12 8 64 24 20 156 36

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.23 0.56 0.21 0.18 0.74 0.08 0.08 0.67 0.25 0.09 0.74 0.17

Final Sat.: 169 401 148 132 526 56 60 479 179 70 548 126

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Capacity Analysis Module:

Vol/Sat: 0.19 0.19 0.19 0.21 0.21 0.21 0.13 0.13 0.13 0.28 0.28 0.28

Crit Moves: **** **** **** ****

Delay/Veh: 8.7 8.7 8.7 9.0 9.0 9.0 8.4 8.4 8.4 9.3 9.3 9.3

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.7 8.7 8.7 9.0 9.0 9.0 8.4 8.4 8.4 9.3 9.3 9.3

LOS by Move: A A A A A A A A A A A A

ApproachDel: 8.7 9.0 8.4 9.3

Delay Adj: 1.00 1.00 1.00 1.00

ApprAdjDel: 8.7 9.0 8.4 9.3

LOS by Appr: A A A A

AllWayAvgQ: 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.4 0.4 0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #14 Menalto/O'Connor

Cycle (sec): 100 Critical Vol./Cap. (X): 0.587

Loss Time (sec): 0 Average Delay (sec/veh): 12.2

Optimal Cycle: 0 Level Of Service: B

Street Name: Menalto O'Connor

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module:

Base Vol: 3 30 69 47 70 7 14 111 9 63 177 40

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 3 30 69 47 70 7 14 111 9 63 177 40

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.38 0.75 0.91 0.53 0.73 0.44 0.70 0.71 0.56 0.83 0.65 0.67

PHF Volume: 8 40 76 88 96 16 20 156 16 76 272 60

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 8 40 76 88 96 16 20 156 16 76 272 60

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 8 40 76 88 96 16 20 156 16 76 272 60

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.06 0.32 0.62 0.44 0.48 0.08 0.10 0.82 0.08 0.18 0.67 0.15

Final Sat.: 39 193 366 260 284 47 66 515 53 129 463 102

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Capacity Analysis Module:

Vol/Sat: 0.21 0.21 0.21 0.34 0.34 0.34 0.30 0.30 0.30 0.59 0.59 0.59

Crit Moves: **** **** **** ****

Delay/Veh: 9.6 9.6 9.6 11.1 11.1 11.1 10.4 10.4 10.4 14.4 14.4 14.4

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 9.6 9.6 9.6 11.1 11.1 11.1 10.4 10.4 10.4 14.4 14.4 14.4

LOS by Move: A A A B B B B B B B B B

ApproachDel: 9.6 11.1 10.4 14.4

Delay Adj: 1.00 1.00 1.00 1.00

ApprAdjDel: 9.6 11.1 10.4 14.4

LOS by Appr: A B B B

AllWayAvgQ: 0.2 0.2 0.2 0.4 0.4 0.4 0.4 0.4 0.4 1.2 1.2 1.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #15 Menalto/Elm

Cycle (sec): 100 Critical Vol./Cap. (X): 0.203

Loss Time (sec): 0 Average Delay (sec/veh): 7.9

Optimal Cycle: 0 Level Of Service: A

Street Name: Menalto

Elm

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0

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Volume Module:

Base Vol: 11 89 0 0 144 6 7 0 22 0 0 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 11 89 0 0 144 6 7 0 22 0 0 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.55 0.93 1.00 1.00 0.88 0.50 0.44 1.00 0.55 1.00 1.00 1.00

PHF Volume: 20 96 0 0 164 12 16 0 40 0 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 20 96 0 0 164 12 16 0 40 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 20 96 0 0 164 12 16 0 40 0 0 0

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.17 0.83 0.00 0.00 0.93 0.07 0.28 0.01 0.71 0.00 0.00 0.00

Final Sat.: 145 695 0 0 809 59 236 0 590 0 0 0

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Capacity Analysis Module:

Vol/Sat: 0.14 0.14 xxxx xxxx 0.20 0.20 0.07 0.00 0.07 xxxx xxxx xxxx

Crit Moves: **** **** ****

Delay/Veh: 7.9 7.9 0.0 0.0 8.1 8.1 7.4 7.4 7.4 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 7.9 7.9 0.0 0.0 8.1 8.1 7.4 7.4 7.4 0.0 0.0 0.0

LOS by Move: A A * * A A A A A * * *

ApproachDel: 7.9 8.1 7.4 xxxxxx

Delay Adj: 1.00 1.00 1.00 xxxxxx

ApprAdjDel: 7.9 8.1 7.4 xxxxxx

LOS by Appr: A A A *

AllWayAvgQ: 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 Menalto/Oak

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: B[10.4]

Street Name:	Menalto						Oak					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:

Base Vol:	7	86	3	4	150	7	6	0	10	10	0	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	86	3	4	150	7	6	0	10	10	0	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.58	0.86	0.75	0.50	0.85	0.58	0.38	1.00	0.63	0.63	1.00	0.38
PHF Volume:	12	100	4	8	176	12	16	0	16	16	0	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	100	4	8	176	12	16	0	16	16	0	8

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	188	xxxx	xxxxx	104	xxxx	xxxxx	328	326	182	332	330	102
Potent Cap.:	1398	xxxx	xxxxx	1500	xxxx	xxxxx	629	595	866	625	592	959
Move Cap.:	1398	xxxx	xxxxx	1500	xxxx	xxxxx	617	587	866	607	584	959
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.03	0.00	0.02	0.03	0.00	0.01

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.6	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	721	xxxxx	xxxx	692	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.2	xxxxx	xxxxx	10.4	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.2	xxxxxx	xxxxxx	10.4	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	*	*	B	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #17 Menalto/Gilbert

Cycle (sec): 100 Critical Vol./Cap. (X): 0.275

Loss Time (sec): 0 Average Delay (sec/veh): 8.5

Optimal Cycle: 0 Level Of Service: A

Street Name: Menalto Gilbert

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 1 0 0 0 0 0 0 1 0 0 0

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Volume Module:

Base Vol: 69 66 0 0 125 57 34 0 15 0 0 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 69 66 0 0 125 57 34 0 15 0 0 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.75 0.79 1.00 1.00 0.76 0.75 0.71 1.00 0.63 1.00 1.00 1.00

PHF Volume: 92 84 0 0 164 76 48 0 24 0 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 92 84 0 0 164 76 48 0 24 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 92 84 0 0 164 76 48 0 24 0 0 0

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.52 0.48 0.00 0.00 0.68 0.32 0.67 0.00 0.33 0.00 0.00 0.00

Final Sat.: 419 383 0 0 596 276 480 0 240 0 0 0

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Capacity Analysis Module:

Vol/Sat: 0.22 0.22 xxxx xxxx 0.28 0.28 0.10 xxxx 0.10 xxxx xxxx xxxx

Crit Moves: **** ****

Delay/Veh: 8.6 8.6 0.0 0.0 8.6 8.6 8.1 0.0 8.1 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.6 8.6 0.0 0.0 8.6 8.6 8.1 0.0 8.1 0.0 0.0 0.0

LOS by Move: A A * * A A A * A * * *

ApproachDel: 8.6 8.6 8.1 xxxxxx

Delay Adj: 1.00 1.00 1.00 xxxxxx

ApprAdjDel: 8.6 8.6 8.1 xxxxxx

LOS by Appr: A A A *

AllWayAvgQ: 0.3 0.3 0.3 0.4 0.4 0.4 0.1 0.1 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 Menalto/Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.287
 Loss Time (sec): 0 Average Delay (sec/veh): 8.8
 Optimal Cycle: 0 Level Of Service: A

Menalto						Woodland						
North Bound			South Bound			East Bound			West Bound			
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0	1	0	0	0	0	1	0

Volume Module:												
Base Vol:	0	44	33	39	106	0	0	0	0	99	0	91
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	44	33	39	106	0	0	0	0	99	0	91
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	0.69	0.83	0.75	0.74	1.00	1.00	1.00	1.00	0.92	1.00	0.76
PHF Volume:	0	64	40	52	144	0	0	0	0	108	0	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	64	40	52	144	0	0	0	0	108	0	120
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	64	40	52	144	0	0	0	0	108	0	120

Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.62	0.38	0.27	0.73	0.00	0.00	0.00	0.00	0.47	0.00	0.53
Final Sat.:	0	479	300	201	556	0	0	0	0	376	0	418

Capacity Analysis Module:												
Vol/Sat:	xxxx	0.13	0.13	0.26	0.26	xxxx	xxxx	xxxx	xxxx	0.29	xxxx	0.29
Crit Moves:	****			****						****		
Delay/Veh:	0.0	8.0	8.0	9.1	9.1	0.0	0.0	0.0	0.0	9.0	0.0	9.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.0	8.0	9.1	9.1	0.0	0.0	0.0	0.0	9.0	0.0	9.0
LOS by Move:	*	A	A	A	A	*	*	*	*	A	*	A
ApproachDel:	8.0			9.1			xxxxxx			9.0		
Delay Adj:	1.00			1.00			xxxxxx			1.00		
ApprAdjDel:	8.0			9.1			xxxxxx			9.0		
LOS by Appr:	A			A			*			A		
AllWayAvgQ:	0.1	0.1	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.4	0.4	0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #19 Woodland/Middlefield

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: C[24.5]

Street Name:	Woodland						Middlefield					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:

Base Vol:	0	0	0	34	0	150	60	977	0	0	659	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	34	0	150	60	977	0	0	659	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.77	1.00	0.83	0.88	0.93	1.00	1.00	0.89	0.61
PHF Volume:	0	0	0	44	0	180	68	1048	0	0	744	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	44	0	180	68	1048	0	0	744	28

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1418	xxxx	758	772	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	152	xxxx	410	852	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	143	xxxx	410	852	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.31	xxxx	0.44	0.08	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	1.2	xxxx	2.2	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	41.0	xxxx	20.5	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	E	*	C	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			24.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #20 Elliott/O'Connor

Average Delay (sec/veh): 4.1 Worst Case Level Of Service: C[17.0]

Street Name:	Elliott						O'Connor					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0

Volume Module:	Elliott						O'Connor					
Base Vol:	67	0	29	0	0	0	0	132	94	55	209	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	0	29	0	0	0	0	132	94	55	209	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.70	1.00	0.56	1.00	1.00	1.00	1.00	0.92	0.64	0.46	0.75	1.00
PHF Volume:	96	0	52	0	0	0	0	144	148	120	280	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	96	0	52	0	0	0	0	144	148	120	280	0

Critical Gap Module:	Elliott						O'Connor					
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:	Elliott						O'Connor					
Cnflct Vol:	738	738	218	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	292	xxxx	xxxxx
Potent Cap.:	388	348	827	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1281	xxxx	xxxxx
Move Cap.:	358	313	827	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1281	xxxx	xxxxx
Volume/Cap:	0.27	0.00	0.06	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	xxxx

Level Of Service Module:	Elliott						O'Connor					
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	447	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	1.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.3	xxxx	xxxxx
Shrd ConDel:	xxxxx	17.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	A	*	*
ApproachDel:	17.0	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	C	*	*	*	*	*	*	*	*	*	*	*

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #21 Byers/O'Connor

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[11.2]

Street Name:	Byers						O'Connor					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0

Volume Module:

Base Vol:	4	0	2	0	0	0	0	166	3	1	242	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	0	2	0	0	0	0	166	3	1	242	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.50	1.00	0.50	1.00	1.00	1.00	1.00	0.81	0.75	0.25	0.77	1.00
PHF Volume:	8	0	4	0	0	0	0	204	4	4	316	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	8	0	4	0	0	0	0	204	4	4	316	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxxx	xxxxx

Capacity Module:

Cnflct Vol:	530	530	206	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	208	xxxxx	xxxxx
Potent Cap.:	513	457	840	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1375	xxxxx	xxxxx
Move Cap.:	512	456	840	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1375	xxxxx	xxxxx
Volume/Cap:	0.02	0.00	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.00	xxxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.6	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx	589	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Shrd ConDel:	xxxxx	11.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.6	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	11.2		xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
ApproachLOS:	B		*	*	*	*	*	*	*	*	*	*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #22 Woodland/Oak

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[10.7]

Street Name: Woodland Oak

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 1 0

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Volume Module:

Base Vol: 0 0 0 16 0 13 4 49 0 0 207 5

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 16 0 13 4 49 0 0 207 5

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 0.57 1.00 0.81 0.50 0.56 1.00 1.00 0.80 0.42

PHF Volume: 0 0 0 28 0 16 8 88 0 0 260 12

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 0 0 28 0 16 8 88 0 0 260 12

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Critical Gap Module:

Critical Gp:xxxxx xxxx xxxxx 6.4 6.5 6.2 4.1 xxxx xxxxx xxxxx xxxx xxxxx

FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 2.2 xxxx xxxxx xxxxx xxxx xxxxx

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Capacity Module:

Cnflct Vol: xxxx xxxx xxxxx 370 370 266 272 xxxx xxxxx xxxx xxxx xxxxx

Potent Cap.: xxxx xxxx xxxxx 634 563 777 1303 xxxx xxxxx xxxx xxxx xxxxx

Move Cap.: xxxx xxxx xxxxx 631 559 777 1303 xxxx xxxxx xxxx xxxx xxxxx

Volume/Cap: xxxx xxxx xxxx 0.04 0.00 0.02 0.01 xxxx xxxx xxxx xxxx xxxxx

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Level Of Service Module:

2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx

Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: * * * * * A * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx 678 xxxxx xxxx xxxx xxxxx xxxxx

SharedQueue:xxxxx xxxx xxxxx xxxxx 0.2 xxxxx 0.0 xxxx xxxxx xxxxx xxxx xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxxx 10.7 xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx

Shared LOS: * * * * * B * A * * * * *

ApproachDel: xxxxxx 10.7 xxxxxx xxxxxx

ApproachLOS: * B * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 University/Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 1.014
 Loss Time (sec): 0 Average Delay (sec/veh): 50.9
 Optimal Cycle: 180 Level Of Service: D

University				Woodland											
Approach: North Bound				South Bound				East Bound				West Bound			
Movement: L - T - R				L - T - R				L - T - R				L - T - R			
Control: Protected				Protected				Split Phase				Split Phase			
Rights: Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	1	1	0	1	1	0	1	1	0	0	1	0	

Volume Module:												
Base Vol:	62	613	20	267	1012	604	412	65	74	17	120	352
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	613	20	267	1012	604	412	65	74	17	120	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.71	0.91	0.71	0.94	0.93	0.85	0.87	0.81	0.93	0.85	0.86	0.83
PHF Volume:	88	676	28	284	1084	712	472	80	80	20	140	424
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	676	28	284	1084	712	472	80	80	20	140	424
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	88	676	28	284	1084	712	472	80	80	20	140	424

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.85	0.95	0.88	0.88	0.99	0.99	0.85
Lanes:	1.00	1.92	0.08	1.00	2.00	1.00	1.00	1.00	1.00	0.12	0.88	1.00
Final Sat.:	1805	3446	143	1805	3610	1615	1805	1670	1670	236	1653	1615

Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.20	0.16	0.30	0.44	0.26	0.05	0.05	0.08	0.08	0.26
Crit Moves:	****			****			****					****
Green/Cycle:	0.05	0.27	0.27	0.22	0.44	0.44	0.26	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	1.01	0.73	0.73	0.73	0.69	1.01	1.01	0.19	0.19	0.33	0.33	1.01
Uniform Del:	47.6	33.3	33.3	36.6	22.8	28.2	37.1	28.9	28.9	30.0	30.0	37.0
IncrementDel:	100.5	2.9	2.9	7.0	1.3	37.4	45.2	0.1	0.1	0.4	0.4	47.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	148.1	36.2	36.2	43.6	24.1	65.7	82.3	29.0	29.0	30.4	30.4	84.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	148.1	36.2	36.2	43.6	24.1	65.7	82.3	29.0	29.0	30.4	30.4	84.6
LOS by Move:	F	D	D	D	C	E	F	C	C	C	C	F
HCM2kAvgQ:	6	12	12	10	15	30	21	2	2	4	4	19

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Ravenswood/Middlefield

Cycle (sec): 100 Critical Vol./Cap.(X): 1.056

Loss Time (sec): 0 Average Delay (sec/veh): 70.0

Optimal Cycle: 180 Level Of Service: E

Street Name: Ravenswood Middlefield

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: AddLane Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0

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Volume Module:

Base Vol: 97 0 653 0 0 0 0 0 449 84 473 401 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 97 0 653 0 0 0 0 0 449 84 473 401 0

Added Vol: 0 0 0 0 0 0 0 0 -52 0 0 -59 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 97 0 653 0 0 0 0 0 397 84 473 342 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.93 1.00 0.87 1.00 1.00 1.00 1.00 0.93 0.81 0.86 0.84 1.00

PHF Volume: 104 0 751 0 0 0 0 0 427 104 550 407 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 104 0 751 0 0 0 0 0 427 104 550 407 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 104 0 751 0 0 0 0 0 427 104 550 407 0

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 1.00 0.97 0.97 0.95 1.00 1.00

Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.80 0.20 1.00 1.00 0.00

Final Sat.: 1805 0 1615 0 0 0 0 0 1489 362 1805 1900 0

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Capacity Analysis Module:

Vol/Sat: 0.06 0.00 0.46 0.00 0.00 0.00 0.00 0.29 0.29 0.30 0.21 0.00

Crit Moves: ****

Green/Cycle: 0.44 0.00 0.44 0.00 0.00 0.00 0.00 0.27 0.27 0.29 0.56 0.00

Volume/Cap: 0.13 0.00 1.06 0.00 0.00 0.00 0.00 1.06 1.06 1.06 0.38 0.00

Uniform Del: 16.6 0.0 28.0 0.0 0.0 0.0 0.0 36.4 36.4 35.6 12.3 0.0

IncrementDel: 0.1 0.0 49.6 0.0 0.0 0.0 0.0 55.8 55.8 55.1 0.2 0.0

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00

Delay/Veh: 16.7 0.0 77.6 0.0 0.0 0.0 0.0 92.2 92.2 90.7 12.6 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 16.7 0.0 77.6 0.0 0.0 0.0 0.0 92.2 92.2 90.7 12.6 0.0

LOS by Move: B A E A A A A F F F B A

HCM2kAvgQ: 2 0 33 0 0 0 0 25 25 26 7 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #2 Ringwood/Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.803
 Loss Time (sec): 0 Average Delay (sec/veh): 23.1
 Optimal Cycle: 0 Level Of Service: C

Street Name: Ringwood Bay
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 82 7 122 24 53 8 8 194 221 240 105 9
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 82 7 122 24 53 8 8 194 221 240 105 9
 Added Vol: -4 0 -10 0 0 0 0 -9 -5 -13 -8 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 78 7 112 24 53 8 8 185 216 227 97 9
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.66 0.44 0.80 0.67 0.75 0.50 0.63 0.88 0.83 0.78 0.66 0.50
 PHF Volume: 119 16 139 36 71 16 13 210 262 291 148 18
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 119 16 139 36 71 16 13 210 262 291 148 18
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 119 16 139 36 71 16 13 210 262 291 148 18
 -----|-----|-----|-----|

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.43 0.06 0.51 0.29 0.58 0.13 0.03 0.43 0.54 0.64 0.32 0.04
 Final Sat.: 216 29 254 126 248 56 16 264 329 363 184 22
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.55 0.55 0.55 0.29 0.29 0.29 0.80 0.80 0.80 0.80 0.80 0.80
 Crit Moves: **** **** ****
 Delay/Veh: 15.9 15.9 15.9 12.5 12.5 12.5 25.6 25.6 25.6 27.7 27.7 27.7
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 15.9 15.9 15.9 12.5 12.5 12.5 25.6 25.6 25.6 27.7 27.7 27.7
 LOS by Move: C C C B B B D D D D D D
 ApproachDel: 15.9 12.5 25.6 27.7
 Delay Adj: 1.00 1.00
 ApprAdjDel: 15.9 12.5 25.6 27.7
 LOS by Appr: C B D D
 AllWayAvgQ: 0.9 0.9 0.9 0.3 0.3 0.3 2.8 2.8 2.8 2.9 2.9 2.9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #3 Ringwood/Coleman

Cycle (sec): 100 Critical Vol./Cap. (X): 0.726

Loss Time (sec): 0 Average Delay (sec/veh): 15.9

Optimal Cycle: 0 Level Of Service: C

Street Name: Ringwood Coleman

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 0 1 0 0 1 0 0 0 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 134 89 92 304 0 0 0 0 97 0 127

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 134 89 92 304 0 0 0 0 97 0 127

Added Vol: 0 -10 -7 -10 -13 0 0 0 0 -9 0 -13

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 124 82 82 291 0 0 0 0 88 0 114

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 0.96 0.72 0.59 0.83 1.00 1.00 1.00 1.00 0.66 1.00 0.57

PHF Volume: 0 130 114 139 352 0 0 0 0 134 0 201

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 130 114 139 352 0 0 0 0 134 0 201

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 130 114 139 352 0 0 0 0 134 0 201

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.53 0.47 0.28 0.72 0.00 0.00 0.00 0.00 0.40 0.01 0.59

Final Sat.: 0 348 307 191 485 0 0 0 0 254 0 380

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Capacity Analysis Module:

Vol/Sat: xxxx 0.37 0.37 0.73 0.73 xxxx xxxx xxxx 0.53 0.00 0.53

Crit Moves: **** ****

Delay/Veh: 0.0 11.0 11.0 20.0 20.0 0.0 0.0 0.0 0.0 13.6 13.6 13.6

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 11.0 11.0 20.0 20.0 0.0 0.0 0.0 0.0 13.6 13.6 13.6

LOS by Move: * B B C C * * * B B B

ApproachDel: 11.0 20.0 xxxxxx 13.6

Delay Adj: 1.00 1.00 xxxxxx 1.00

ApprAdjDel: 11.0 20.0 xxxxxx 13.6

LOS by Appr: B C *

AllWayAvgQ: 0.5 0.5 0.5 2.2 2.2 2.2 0.0 0.0 0.0 0.9 0.9 0.9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Ringwood/Middlefield

Cycle (sec): 100 Critical Vol./Cap. (X): 0.486

Loss Time (sec): 0 Average Delay (sec/veh): 21.5

Optimal Cycle: 36 Level Of Service: C

Street Name: Ringwood Middlefield

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 0 1 0 0 1 0 1 0 2 0 1

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Volume Module:

Base Vol: 9 4 3 135 47 278 222 766 82 44 596 96

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 9 4 3 135 47 278 222 766 82 44 596 96

Added Vol: 0 0 0 0 0 -23 -18 -34 0 0 -37 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 9 4 3 135 47 255 204 732 82 44 559 96

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.45 0.50 0.38 0.82 0.84 0.94 0.79 0.90 0.89 0.69 0.89 0.69

PHF Volume: 20 8 8 164 56 272 258 814 92 64 631 140

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 20 8 8 164 56 272 258 814 92 64 631 140

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 20 8 8 164 56 272 258 814 92 64 631 140

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.45 0.93 0.93 0.77 0.77 0.85 0.95 0.94 0.94 0.95 0.95 0.85

Lanes: 1.00 0.50 0.50 0.75 0.25 1.00 1.00 1.80 0.20 1.00 2.00 1.00

Final Sat.: 859 879 879 1096 374 1615 1805 3195 361 1805 3610 1615

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Capacity Analysis Module:

Vol/Sat: 0.02 0.01 0.01 0.15 0.15 0.17 0.14 0.25 0.25 0.04 0.17 0.09

Crit Moves: **** *

Green/Cycle: 0.35 0.35 0.35 0.35 0.35 0.35 0.29 0.57 0.57 0.08 0.36 0.36

Volume/Cap: 0.07 0.03 0.03 0.43 0.43 0.49 0.49 0.44 0.44 0.44 0.49 0.24

Uniform Del: 21.9 21.6 21.6 25.1 25.1 25.7 29.1 12.2 12.2 43.9 24.8 22.4

IncrmntDel: 0.1 0.0 0.0 0.6 0.6 0.7 0.7 0.2 0.2 2.2 0.3 0.2

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Delay/Veh: 22.0 21.6 21.6 25.7 25.7 26.4 29.8 12.3 12.3 46.1 25.1 22.7

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 22.0 21.6 21.6 25.7 25.7 26.4 29.8 12.3 12.3 46.1 25.1 22.7

LOS by Move: C C C C C C C B B D C C

HCM2kAvgQ: 0 0 0 5 5 7 7 8 8 2 8 3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Willow/Bay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.602
 Loss Time (sec): 0 Average Delay (sec/veh): 15.7
 Optimal Cycle: 57 Level Of Service: B

Street Name:	Willow						Bay						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Split Phase			Split Phase			
Rights:	Include			Include			Include			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	1	0	2	0	0	1	1	0	0	0	1	0	0

Volume Module:	Willow			Willow			Bay			Bay		
Base Vol:	77	1308	0	0	1093	299	343	0	78	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	1308	0	0	1093	299	343	0	78	0	0	0
Added Vol:	2	-27	0	0	-33	0	0	0	4	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	1281	0	0	1060	299	343	0	82	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.77	0.98	1.00	1.00	0.87	0.69	0.91	1.00	0.70	1.00	1.00	1.00
PHF Volume:	103	1302	0	0	1214	432	377	0	118	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	1302	0	0	1214	432	377	0	118	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	1302	0	0	1214	432	377	0	118	0	0	0

Saturation Flow Module:	Willow			Willow			Bay			Bay		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	0.85	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	1805	3610	0	0	3610	1615	1805	0	1615	0	0	0

Capacity Analysis Module:	Willow			Willow			Bay			Bay		
Vol/Sat:	0.06	0.36	0.00	0.00	0.34	0.27	0.21	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****			****			****					
Green/Cycle:	0.09	0.65	0.00	0.00	0.56	0.56	0.35	0.00	0.35	0.00	0.00	0.00
Volume/Cap:	0.60	0.55	0.00	0.00	0.60	0.48	0.60	0.00	0.21	0.00	0.00	0.00
Uniform Del:	43.5	9.4	0.0	0.0	14.7	13.3	26.9	0.0	23.0	0.0	0.0	0.0
IncrementDel:	5.9	0.3	0.0	0.0	0.5	0.4	1.7	0.0	0.2	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	49.4	9.7	0.0	0.0	15.2	13.7	28.6	0.0	23.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.4	9.7	0.0	0.0	15.2	13.7	28.6	0.0	23.2	0.0	0.0	0.0
LOS by Move:	D	A	A	A	B	B	C	A	C	A	A	A
HCM2kAvgQ:	4	12	0	0	13	8	10	0	3	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #6 Willow/Chester

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: C[24.1]

Street Name:	Willow						Chester					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	2	0	0	0	0	0	0

Volume Module:	Willow			Willow			Chester			Chester		
Base Vol:	0	1290	10	152	1244	0	0	0	0	0	0	174
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1290	10	152	1244	0	0	0	0	0	0	174
Added Vol:	0	-23	-2	-1	-28	0	0	0	0	0	0	-1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1267	8	151	1216	0	0	0	0	0	0	173
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	0.97	0.83	0.78	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.76
PHF Volume:	0	1312	10	195	1247	0	0	0	0	0	0	227
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1312	10	195	1247	0	0	0	0	0	0	227

Critical Gap Module:	Willow			Willow			Chester			Chester		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3

Capacity Module:	Willow			Willow			Chester			Chester		
Cnflct Vol:	xxxxx	xxxx	xxxxx	1321	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	661
Potent Cap.:	xxxxx	xxxx	xxxxx	530	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	410
Move Cap.:	xxxxx	xxxx	xxxxx	530	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	410
Volume/Cap:	xxxxx	xxxx	xxxxx	0.37	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	0.55

Level Of Service Module:	Willow			Willow			Chester			Chester		
2Way95thQ:	xxxxx	xxxx	xxxxx	1.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3
Control Del:	xxxxx	xxxx	xxxxx	15.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	24.1
LOS by Move:	*	*	*	C	*	*	*	*	*	*	*	C
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			24.1		
ApproachLOS:	*			*			*			C		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Willow/Durham

Cycle (sec): 100 Critical Vol./Cap. (X): 0.642
 Loss Time (sec): 0 Average Delay (sec/veh): 9.7
 Optimal Cycle: 52 Level Of Service: A

Willow						Durham						
North Bound			South Bound			East Bound			West Bound			
Approach:												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	0	1	0	0	1	1	0

Volume Module:

Base Vol:	34	1072	11	29	743	95	54	5	6	62	18	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	1072	11	29	743	95	54	5	6	62	18	109
Added Vol:	0	-2	-2	-28	0	0	0	0	0	-4	0	-23
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	1070	9	1	743	95	54	5	6	58	18	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.71	0.95	0.69	0.60	0.87	0.77	0.75	0.42	0.50	0.78	0.64	0.74
PHF Volume:	48	1123	13	2	852	124	72	12	12	75	28	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	1123	13	2	852	124	72	12	12	75	28	117
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	1123	13	2	852	124	72	12	12	75	28	117

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	0.95	0.98	0.98	0.48	0.48	0.85	0.50	0.88	0.88
Lanes:	1.00	1.98	0.02	1.00	0.87	0.13	0.86	0.14	1.00	1.00	0.19	0.81
Final Sat.:	1805	3561	42	1805	1627	237	783	131	1615	944	323	1347

Capacity Analysis Module:

Vol/Sat:	0.03	0.32	0.32	0.00	0.52	0.52	0.09	0.09	0.01	0.08	0.09	0.09
Crit Moves:	****			****			****					
Green/Cycle:	0.04	0.85	0.85	0.00	0.82	0.82	0.14	0.14	0.14	0.14	0.14	0.14
Volume/Cap:	0.64	0.37	0.37	0.37	0.64	0.64	0.64	0.64	0.05	0.55	0.61	0.61
Uniform Del:	47.2	1.5	1.5	49.8	3.6	3.6	40.4	40.4	37.0	39.9	40.2	40.2
IncrementDel:	17.4	0.1	0.1	44.6	0.9	0.9	10.4	10.4	0.1	4.9	4.4	4.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	64.6	1.6	1.6	94.4	4.5	4.5	50.8	50.8	37.1	44.8	44.6	44.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.6	1.6	1.6	94.4	4.5	4.5	50.8	50.8	37.1	44.8	44.6	44.6
LOS by Move:	E	A	A	F	A	A	D	D	D	D	D	D
HCM2kAvgQ:	3	4	4	0	12	12	4	4	0	3	5	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #8 Willow/O'Keefe

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: F[59.0]

Street Name:	Willow						O'Keefe											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	T	R	L	T	R	L	T	R	L	T	R						
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign								
Rights:	Include			Include			Include			Include								
Lanes:	0	0	1	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1

Volume Module:	Willow			Willow			O'Keefe			O'Keefe		
Base Vol:	0	1133	41	30	1091	0	0	0	0	16	0	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1133	41	30	1091	0	0	0	0	16	0	51
Added Vol:	0	-4	-3	0	-4	0	0	0	0	-4	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1129	38	30	1087	0	0	0	0	12	0	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	0.96	0.79	0.63	0.92	1.00	1.00	1.00	1.00	0.80	1.00	0.75
PHF Volume:	0	1180	48	48	1180	0	0	0	0	15	0	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1180	48	48	1180	0	0	0	0	15	0	68

Critical Gap Module:	Willow			Willow			O'Keefe			O'Keefe		
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:	Willow			Willow			O'Keefe			O'Keefe		
Cnflct Vol:	xxxx	xxxx	xxxxx	1228	xxxx	xxxxx	xxxx	xxxx	xxxxx	2480	xxxx	1204
Potent Cap.:	xxxx	xxxx	xxxxx	575	xxxx	xxxxx	xxxx	xxxx	xxxxx	33	xxxx	227
Move Cap.:	xxxx	xxxx	xxxxx	575	xxxx	xxxxx	xxxx	xxxx	xxxxx	31	xxxx	227
Volume/Cap:	xxxx	xxxx	xxxx	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	0.48	xxxx	0.30

Level Of Service Module:	Willow			Willow			O'Keefe			O'Keefe		
2Way95thQ:	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.6	xxxx	1.2
Control Del:	xxxxx	xxxx	xxxxx	11.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	201.6	xxxx	27.6
LOS by Move:	*	*	*	B	*	*	*	*	*	F	*	D
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			59.0		
ApproachLOS:	*			*			*			F		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 Willow/Coleman

Cycle (sec): 100 Critical Vol./Cap. (X): 0.775

Loss Time (sec): 0 Average Delay (sec/veh): 15.9

Optimal Cycle: 64 Level Of Service: B

Street Name: Willow Coleman

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 0 0 1 0 0

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Volume Module:

Base Vol: 2 684 77 26 913 4 189 6 64 7 4 4

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 2 684 77 26 913 4 189 6 64 7 4 4

Added Vol: 1 -6 0 0 -7 -2 -2 0 6 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 3 678 77 26 906 2 187 6 70 7 4 4

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.47 0.77 0.75 0.68 0.88 0.47 0.84 0.47 0.75 0.41 0.47 0.94

PHF Volume: 6 886 102 38 1035 4 223 13 93 17 9 4

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 6 886 102 38 1035 4 223 13 93 17 9 4

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 6 886 102 38 1035 4 223 13 93 17 9 4

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.13 0.99 0.99 0.15 1.00 1.00 0.76 0.76 0.76 0.83 0.83 0.83

Lanes: 1.00 0.90 0.10 1.00 0.99 0.01 0.68 0.04 0.28 0.57 0.29 0.14

Final Sat.: 239 1678 193 287 1890 8 982 56 409 906 453 227

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Capacity Analysis Module:

Vol/Sat: 0.03 0.53 0.53 0.13 0.55 0.55 0.23 0.23 0.23 0.02 0.02 0.02

Crit Moves: **** *

Green/Cycle: 0.71 0.71 0.71 0.71 0.71 0.71 0.29 0.29 0.29 0.29 0.29 0.29

Volume/Cap: 0.04 0.75 0.75 0.19 0.77 0.77 0.77 0.77 0.77 0.06 0.06 0.06

Uniform Del: 4.4 9.1 9.1 5.0 9.5 9.5 32.3 32.3 32.3 25.4 25.4 25.4

IncrementDel: 0.1 2.4 2.4 0.5 2.9 2.9 8.6 8.6 8.6 0.1 0.1 0.1

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Delay/Veh: 4.5 11.5 11.5 5.4 12.4 12.4 41.0 41.0 41.0 25.5 25.5 25.5

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 4.5 11.5 11.5 5.4 12.4 12.4 41.0 41.0 41.0 25.5 25.5 25.5

LOS by Move: A B B A B B D D D C C C

HCM2kAvgQ: 0 20 20 1 22 22 11 11 11 1 1 1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #10 Willow/Gilbert

Cycle (sec): 100 Critical Vol./Cap. (X): 0.616

Loss Time (sec): 0 Average Delay (sec/veh): 12.1

Optimal Cycle: 37 Level Of Service: B

Street Name: Willow Gilbert

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 0 0 1 0 1 0 0 1 0

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Volume Module:

Base Vol: 5 821 52 31 708 3 106 100 90 38 37 7

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 5 821 52 31 708 3 106 100 90 38 37 7

Added Vol: 0 -8 -26 8 -9 0 0 0 0 -24 0 3

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 5 813 26 39 699 3 106 100 90 14 37 10

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.42 0.90 0.65 0.86 0.86 0.75 0.70 0.71 0.80 0.73 0.62 0.44

PHF Volume: 12 899 40 45 818 4 152 140 112 19 60 23

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 12 899 40 45 818 4 152 140 112 19 60 23

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 12 899 40 45 818 4 152 140 112 19 60 23

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.26 1.00 0.85 0.23 1.00 1.00 0.59 0.93 0.93 0.27 0.96 0.96

Lanes: 1.00 1.00 1.00 1.00 0.99 0.01 1.00 0.56 0.44 1.00 0.72 0.28

Final Sat.: 498 1900 1615 437 1889 9 1119 985 788 519 1320 502

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Capacity Analysis Module:

Vol/Sat: 0.02 0.47 0.02 0.10 0.43 0.43 0.14 0.14 0.14 0.04 0.05 0.05

Crit Moves: ****

Green/Cycle: 0.77 0.77 0.77 0.77 0.77 0.77 0.23 0.23 0.23 0.23 0.23 0.23

Volume/Cap: 0.03 0.62 0.03 0.13 0.56 0.56 0.59 0.62 0.62 0.16 0.20 0.20

Uniform Del: 2.7 5.1 2.7 3.0 4.7 4.7 34.2 34.5 34.5 30.7 31.0 31.0

IncremntDel: 0.0 0.8 0.0 0.2 0.5 0.5 3.5 2.8 2.8 0.6 0.2 0.2

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Delay/Veh: 2.8 5.9 2.7 3.2 5.2 5.2 37.7 37.3 37.3 31.3 31.2 31.2

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 2.8 5.9 2.7 3.2 5.2 5.2 37.7 37.3 37.3 31.3 31.2 31.2

LOS by Move: A A A A A A D D D C C C

HCM2kAvgQ: 0 13 0 0 11 11 5 8 8 1 2 2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Willow/Middlefield

Cycle (sec): 100 Critical Vol./Cap. (X): 1.057

Loss Time (sec): 0 Average Delay (sec/veh): 52.1

Optimal Cycle: 180 Level Of Service: D

Street Name: Willow Middlefield

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Split Phase Split Phase Permitted Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 0 1 1 1 0 0 1 1 1 0 1 0 1 0 2 0 1

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Volume Module:

Base Vol: 21 173 119 386 64 349 410 422 15 75 411 290

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 21 173 119 386 64 349 410 422 15 75 411 290

Added Vol: 0 -3 0 -10 -2 -24 -23 -9 0 0 -11 -12

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 21 170 119 376 62 325 387 413 15 75 400 278

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.58 0.85 0.85 0.85 0.89 0.93 0.84 0.87 0.63 0.75 0.93 0.88

PHF Volume: 36 200 140 440 70 350 461 474 24 100 428 314

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 36 200 140 440 70 350 461 474 24 100 428 314

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 36 200 140 440 70 350 461 474 24 100 428 314

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.95 1.00 0.85 0.96 0.96 0.85 0.23 0.23 0.23 0.43 0.95 0.85

Lanes: 1.00 1.00 1.00 1.73 0.27 1.00 1.44 1.48 0.08 1.00 2.00 1.00

Final Sat.: 1805 1900 1615 3145 499 1615 627 645 33 819 3610 1615

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Capacity Analysis Module:

Vol/Sat: 0.02 0.11 0.09 0.14 0.14 0.22 0.73 0.73 0.73 0.12 0.12 0.19

Crit Moves: **** **** ****

Green/Cycle: 0.10 0.10 0.10 0.21 0.21 0.21 0.69 0.69 0.69 0.69 0.69 0.69

Volume/Cap: 0.20 1.06 0.87 0.68 0.68 1.06 1.06 1.06 1.06 0.18 0.17 0.28

Uniform Del: 41.3 45.0 44.4 36.7 36.7 39.7 15.3 15.3 15.3 5.3 5.3 5.8

IncrementDel: 0.5 81.1 36.1 2.6 2.6 65.1 46.0 46.0 46.0 0.1 0.0 0.1

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Delay/Veh: 41.9 126 80.4 39.3 39.3 104.9 61.2 61.2 61.2 5.4 5.3 5.9

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 41.9 126 80.4 39.3 39.3 104.9 61.2 61.2 61.2 5.4 5.3 5.9

LOS by Move: D F F D D F E E E A A A

HCM2kAvgQ: 1 11 7 8 8 18 17 17 17 1 2 4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #12 Menalto/Durham-Donohoe

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: B[10.6]

Street Name:	Menalto						Durham-Donohoe					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1 0 0	0	0	1! 0 0

Volume Module:	Menalto NB			Menalto SB			Durham-Donohoe EB			Durham-Donohoe WB		
Base Vol:	49	28	6	1	58	11	0	5	26	26	16	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	49	28	6	1	58	11	0	5	26	26	16	6
Added Vol:	-22	7	1	0	9	-2	0	0	-27	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	35	7	1	67	9	0	5	-1	27	16	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.72	0.78	0.50	0.25	0.76	0.69	1.00	0.63	0.00	0.93	1.00	0.50
PHF Volume:	37	45	14	4	88	13	0	8	0	29	16	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	37	45	14	4	88	13	0	8	0	29	16	12

Critical Gap Module:	Menalto NB			Menalto SB			Durham-Donohoe EB			Durham-Donohoe WB		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	xxxxxx	6.5	xxxxxx	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	xxxxxx	4.0	xxxxxx	3.5	4.0	3.3

Capacity Module:	Menalto NB			Menalto SB			Durham-Donohoe EB			Durham-Donohoe WB		
Cnflct Vol:	101	xxxx	xxxxxx	59	xxxx	xxxxxx	xxxx	236	xxxxxx	233	236	52
Potent Cap.:	1504	xxxx	xxxxxx	1558	xxxx	xxxxxx	xxxx	668	xxxxxx	726	668	1021
Move Cap.:	1504	xxxx	xxxxxx	1558	xxxx	xxxxxx	xxxx	649	xxxxxx	704	650	1021
Volume/Cap:	0.02	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	0.01	xxxx	0.04	0.02	0.01

Level Of Service Module:	Menalto NB			Menalto SB			Durham-Donohoe EB			Durham-Donohoe WB		
2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	0.0	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	10.6	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	B	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	735	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.3	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			10.6			10.3		
ApproachLOS:	*			*			B			B		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #13 Menalto/O'Keefe

Cycle (sec): 100 Critical Vol./Cap. (X): 0.279

Loss Time (sec): 0 Average Delay (sec/veh): 8.8

Optimal Cycle: 0 Level Of Service: A

Street Name: Menalto O'Keefe

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module:

Base Vol: 17 62 23 17 78 6 4 47 10 19 92 27

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 17 62 23 17 78 6 4 47 10 19 92 27

Added Vol: 3 -14 0 0 -17 0 0 0 4 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 20 48 23 17 61 6 4 47 14 19 92 27

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.53 0.82 0.82 0.61 0.70 0.50 0.50 0.73 0.42 0.95 0.59 0.75

PHF Volume: 38 59 28 28 88 12 8 64 34 20 156 36

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 38 59 28 28 88 12 8 64 34 20 156 36

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 38 59 28 28 88 12 8 64 34 20 156 36

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.30 0.47 0.23 0.22 0.69 0.09 0.07 0.61 0.32 0.09 0.74 0.17

Final Sat.: 218 341 162 156 489 67 56 451 237 72 559 129

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Capacity Analysis Module:

Vol/Sat: 0.17 0.17 0.17 0.18 0.18 0.18 0.14 0.14 0.14 0.28 0.28 0.28

Crit Moves: **** **** **** ****

Delay/Veh: 8.6 8.6 8.6 8.7 8.7 8.7 8.3 8.3 8.3 9.2 9.2 9.2

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.6 8.6 8.6 8.7 8.7 8.7 8.3 8.3 8.3 9.2 9.2 9.2

LOS by Move: A A A A A A A A A A A A

ApproachDel: 8.6 8.7 8.3 9.2

Delay Adj: 1.00 1.00 1.00

ApprAdjDel: 8.6 8.7 8.3 9.2

LOS by Appr: A A A A

AllWayAvgQ: 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.3 0.3 0.3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #14 Menalto/O'Connor

Cycle (sec): 100 Critical Vol./Cap. (X): 0.585

Loss Time (sec): 0 Average Delay (sec/veh): 12.1

Optimal Cycle: 0 Level Of Service: B

Street Name: Menalto O'Connor

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module:

Base Vol: 3 30 69 47 70 7 14 111 9 63 177 40

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 3 30 69 47 70 7 14 111 9 63 177 40

Added Vol: 0 0 17 -14 0 0 0 0 0 13 0 -11

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 3 30 86 33 70 7 14 111 9 76 177 29

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.38 0.75 0.91 0.53 0.73 0.44 0.70 0.71 0.56 0.83 0.65 0.67

PHF Volume: 8 40 95 62 96 16 20 156 16 92 272 43

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 8 40 95 62 96 16 20 156 16 92 272 43

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 8 40 95 62 96 16 20 156 16 92 272 43

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.06 0.28 0.66 0.36 0.55 0.09 0.10 0.82 0.08 0.22 0.67 0.11

Final Sat.: 34 171 405 209 324 54 67 519 53 157 465 74

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Capacity Analysis Module:

Vol/Sat: 0.23 0.23 0.23 0.30 0.30 0.30 0.30 0.30 0.30 0.58 0.58 0.58

Crit Moves: **** **** **** ****

Delay/Veh: 9.7 9.7 9.7 10.7 10.7 10.7 10.3 10.3 10.3 14.3 14.3 14.3

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 9.7 9.7 9.7 10.7 10.7 10.7 10.3 10.3 10.3 14.3 14.3 14.3

LOS by Move: A A A B B B B B B B B B

ApproachDel: 9.7 10.7 10.3 14.3

Delay Adj: 1.00 1.00 1.00

ApprAdjDel: 9.7 10.7 10.3 14.3

LOS by Appr: A B B B

AllWayAvgQ: 0.2 0.2 0.2 0.3 0.3 0.3 0.4 0.4 0.4 1.2 1.2 1.2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #15 Menalto/Elm

Cycle (sec): 100 Critical Vol./Cap. (X): 0.221

Loss Time (sec): 0 Average Delay (sec/veh): 8.1

Optimal Cycle: 0 Level Of Service: A

Street Name: Menalto Elm

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0

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Volume Module:

Base Vol: 11 89 0 0 144 6 7 0 22 0 0 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 11 89 0 0 144 6 7 0 22 0 0 0

Added Vol: 0 12 0 0 9 2 3 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 11 101 0 0 153 8 10 0 22 0 0 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.55 0.93 1.00 1.00 0.88 0.50 0.44 1.00 0.55 1.00 1.00 1.00

PHF Volume: 20 109 0 0 174 16 23 0 40 0 0 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 20 109 0 0 174 16 23 0 40 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 20 109 0 0 174 16 23 0 40 0 0 0

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.16 0.84 0.00 0.00 0.92 0.08 0.36 0.00 0.64 0.00 0.00 0.00

Final Sat.: 129 704 0 0 790 73 291 0 509 0 0 0

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Capacity Analysis Module:

Vol/Sat: 0.15 0.15 xxxx xxxx 0.22 0.22 0.08 xxxx 0.08 xxxx xxxx xxxx

Crit Moves: **** **** ****

Delay/Veh: 8.0 8.0 0.0 0.0 8.2 8.2 7.6 0.0 7.6 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.0 8.0 0.0 0.0 8.2 8.2 7.6 0.0 7.6 0.0 0.0 0.0

LOS by Move: A A * * A A A * A * *

ApproachDel: 8.0 8.2 7.6 xxxxxx

Delay Adj: 1.00 1.00 1.00 xxxxxx

ApprAdjDel: 8.0 8.2 7.6 xxxxxx

LOS by Appr: A A A *

AllWayAvgQ: 0.2 0.2 0.2 0.3 0.3 0.3 0.1 0.1 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #16 Menalto/Oak

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[10.4]

Street Name:	Menalto						Oak					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	1	0	0	1

Volume Module:	Menalto NB			Menalto SB			Oak EB			Oak WB		
Base Vol:	7	86	3	4	150	7	6	0	10	10	0	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	86	3	4	150	7	6	0	10	10	0	3
Added Vol:	0	12	-6	0	9	0	0	0	0	-7	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	98	-3	4	159	7	6	0	10	3	0	3
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.58	0.86	0.00	0.50	0.85	0.58	0.38	1.00	0.63	0.63	1.00	0.38
PHF Volume:	12	114	0	8	187	12	16	0	16	5	0	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	114	0	8	187	12	16	0	16	5	0	8

Critical Gap Module:	Menalto NB			Menalto SB			Oak EB			Oak WB		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	Menalto NB			Menalto SB			Oak EB			Oak WB		
Cnflct Vol:	199	xxxx	xxxxxx	114	xxxx	xxxxxx	351	347	193	355	353	114
Potent Cap.:	1386	xxxx	xxxxxx	1488	xxxx	xxxxxx	608	580	854	604	576	944
Move Cap.:	1386	xxxx	xxxxxx	1488	xxxx	xxxxxx	596	572	854	587	567	944
Volume/Cap:	0.01	xxxx	xxxx	0.01	xxxx	xxxx	0.03	0.00	0.02	0.01	0.00	0.01

Level Of Service Module:	Menalto NB			Menalto SB			Oak EB			Oak WB		
2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.6	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	702	xxxxxx	xxxx	768	xxxxxx
SharedQueue:	0.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.1	xxxxxx	xxxxxx	0.1	xxxxxx
Shrd ConDel:	7.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.4	xxxxxx	xxxxxx	9.8	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	B	*	*	A	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.4	xxxxxx	xxxxxx	9.8	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	*	*	A	*	*

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #17 Menalto/Gilbert

Cycle (sec): 100 Critical Vol./Cap. (X): 0.280
 Loss Time (sec): 0 Average Delay (sec/veh): 8.6
 Optimal Cycle: 0 Level Of Service: A

Menalto				Gilbert											
Approach: North Bound				South Bound				East Bound				West Bound			
Movement: L - T - R				L - T - R				L - T - R				L - T - R			
Control: Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights: Include				Include				Include				Include			
Min. Green: 0 0 0				0 0 0				0 0 0				0 0 0			
Lanes: 0 1 0 0 0				0 0 0 1 0				0 0 1! 0 0				0 0 0 0 0			

Volume Module:

Base Vol:	69	66	0	0	125	57	34	0	15	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	66	0	0	125	57	34	0	15	0	0	0
Added Vol:	0	4	0	0	1	1	2	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	69	70	0	0	126	58	36	0	15	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.75	0.79	1.00	1.00	0.76	0.75	0.71	1.00	0.63	1.00	1.00	1.00
PHF Volume:	92	89	0	0	165	77	51	0	24	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	92	89	0	0	165	77	51	0	24	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	92	89	0	0	165	77	51	0	24	0	0	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.51	0.49	0.00	0.00	0.68	0.32	0.68	0.00	0.32	0.00	0.00	0.00
Final Sat.:	407	394	0	0	591	277	485	0	229	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.23	0.23	xxxx	xxxx	0.28	0.28	0.10	xxxx	0.10	xxxx	xxxx	xxxx
Crit Moves:	****				****		****					
Delay/Veh:	8.7	8.7	0.0	0.0	8.6	8.6	8.2	0.0	8.2	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.7	8.7	0.0	0.0	8.6	8.6	8.2	0.0	8.2	0.0	0.0	0.0
LOS by Move:	A	A	*	*	A	A	A	*	A	*	*	*
ApproachDel:		8.7			8.6			8.2		xxxxxx		
Delay Adj:		1.00			1.00			1.00		xxxxxx		
ApprAdjDel:		8.7			8.6			8.2		xxxxxx		
LOS by Appr:		A			A			A		*		
AllWayAvgQ:	0.3	0.3	0.3	0.4	0.4	0.4	0.1	0.1	0.1	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #18 Menalto/Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.289

Loss Time (sec): 0 Average Delay (sec/veh): 8.9

Optimal Cycle: 0 Level Of Service: A

Street Name: Menalto Woodland

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 0 1 0 0 1 0 0 0 0 0

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Volume Module:

Base Vol: 0 44 33 39 106 0 0 0 0 99 0 91

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 44 33 39 106 0 0 0 0 99 0 91

Added Vol: 0 4 0 0 1 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 0 48 33 39 107 0 0 0 0 99 0 91

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 0.69 0.83 0.75 0.74 1.00 1.00 1.00 1.00 0.92 1.00 0.76

PHF Volume: 0 70 40 52 145 0 0 0 0 108 0 120

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 70 40 52 145 0 0 0 0 108 0 120

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 70 40 52 145 0 0 0 0 108 0 120

-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.64 0.36 0.26 0.74 0.00 0.00 0.00 0.00 0.47 0.00 0.53

Final Sat.: 0 493 283 199 557 0 0 0 0 374 0 416

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Capacity Analysis Module:

Vol/Sat: xxxx 0.14 0.14 0.26 0.26 xxxx xxxx xxxx 0.29 xxxx 0.29

Crit Moves: **** ****

Delay/Veh: 0.0 8.1 8.1 9.1 9.1 0.0 0.0 0.0 0.0 9.0 0.0 9.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 8.1 8.1 9.1 9.1 0.0 0.0 0.0 0.0 9.0 0.0 9.0

LOS by Move: * A A A A * * * A * A

ApproachDel: 8.1 9.1 xxxxxx 9.0

Delay Adj: 1.00 1.00 xxxxxx 1.00

ApprAdjDel: 8.1 9.1 xxxxxx 9.0

LOS by Appr: A A * A

AllWayAvgQ: 0.1 0.1 0.1 0.3 0.3 0.3 0.0 0.0 0.0 0.4 0.4 0.4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #19 Woodland/Middlefield

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: C[23.1]

Street Name:	Woodland						Middlefield					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	2	0	0	1

Volume Module:	Woodland			Woodland			Middlefield			Middlefield		
Base Vol:	0	0	0	34	0	150	60	977	0	0	659	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	34	0	150	60	977	0	0	659	17
Added Vol:	0	0	0	0	0	-11	-9	-10	0	0	-12	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	34	0	139	51	967	0	0	647	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.77	1.00	0.83	0.88	0.93	1.00	1.00	0.89	0.61
PHF Volume:	0	0	0	44	0	167	58	1038	0	0	730	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	44	0	167	58	1038	0	0	730	28

Critical Gap Module:	Woodland			Woodland			Middlefield			Middlefield		
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:	Woodland			Woodland			Middlefield			Middlefield		
Cnflct Vol:	xxxxx	xxxx	xxxxx	1379	xxxx	744	758	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Potent Cap.:	xxxxx	xxxx	xxxxx	161	xxxx	418	862	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Move Cap.:	xxxxx	xxxx	xxxxx	153	xxxx	418	862	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Volume/Cap:	xxxxx	xxxx	xxxxx	0.29	xxxx	0.40	0.07	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Level Of Service Module:	Woodland			Woodland			Middlefield			Middlefield		
2Way95thQ:	xxxxx	xxxx	xxxxx	1.1	xxxx	1.9	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	37.8	xxxx	19.2	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	E	*	C	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			23.1			xxxxxxx			xxxxxxx		
ApproachLOS:	*			C			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #20 Elliott/O'Connor

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[13.5]

Street Name:	Elliott						O'Connor					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	0	0	0	1	0	1	0

Volume Module:	Elliott						O'Connor					
Base Vol:	67	0	29	0	0	0	0	132	94	55	209	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	0	29	0	0	0	0	132	94	55	209	0
Added Vol:	4	0	-43	0	0	0	0	-1	4	-52	-2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	71	0	-14	0	0	0	0	131	98	3	207	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.70	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.64	0.46	0.75	1.00
PHF Volume:	102	0	0	0	0	0	0	143	154	7	277	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	102	0	0	0	0	0	0	143	154	7	277	0

Critical Gap Module:	Elliott						O'Connor					
Critical Gp:	6.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:	Elliott						O'Connor					
Cnflct Vol:	511	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	297	xxxx	xxxxxx
Potent Cap.:	526	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1276	xxxx	xxxxxx
Move Cap.:	524	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	1276	xxxx	xxxxxx
Volume/Cap:	0.19	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:	Elliott						O'Connor					
2Way95thQ:	0.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	13.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.8	xxxx	xxxxxx
LOS by Move:	B	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.8	xxxx	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	13.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #21 Byers/O'Connor

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: A[9.3]

Street Name:	Byers						O'Connor					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	0	0	1	0	1	0

Volume Module:

Base Vol:	4	0	2	0	0	0	0	166	3	1	242	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	0	2	0	0	0	0	166	3	1	242	0
Added Vol:	-54	0	0	0	0	0	0	0	-44	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	-50	0	2	0	0	0	0	166	-41	1	242	0
User Adj:	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.00	1.00	0.50	1.00	1.00	1.00	1.00	0.81	0.00	0.25	0.77	1.00
PHF Volume:	0	0	4	0	0	0	0	204	0	4	316	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	4	0	0	0	0	204	0	4	316	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	204	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	204	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	842	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1380	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	842	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1380	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	9.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.6	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	A	*	*
ApproachDel:	9.3			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #22 Woodland/Oak

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[9.7]

Street Name:	Woodland						Oak					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	0	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	16	0	13	4	49	0	0	207	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	16	0	13	4	49	0	0	207	5
Added Vol:	0	0	0	-52	0	1	1	0	0	0	0	-63
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	-36	0	14	5	49	0	0	207	-58
User Adj:	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	0.00	1.00	0.81	0.50	0.56	1.00	1.00	0.80	0.00
PHF Volume:	0	0	0	0	0	17	10	88	0	0	260	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	17	10	88	0	0	260	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	260	260	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	783	1316	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	783	1316	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	0.01	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.1	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.7	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	A	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			9.7			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #23 University/Woodland

Cycle (sec): 100 Critical Vol./Cap. (X): 0.947
 Loss Time (sec): 0 Average Delay (sec/veh): 43.2
 Optimal Cycle: 180 Level Of Service: D

University						Woodland						
North Bound			South Bound			East Bound			West Bound			
Approach:												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	1

Volume Module:												
Base Vol:	62	613	20	267	1012	604	412	65	74	17	120	352
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	613	20	267	1012	604	412	65	74	17	120	352
Added Vol:	-26	0	0	0	0	-37	-30	0	-21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	613	20	267	1012	567	382	65	53	17	120	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.71	0.91	0.71	0.94	0.93	0.85	0.87	0.81	0.93	0.85	0.86	0.83
PHF Volume:	51	676	28	284	1084	669	438	80	57	20	140	424
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	676	28	284	1084	669	438	80	57	20	140	424
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	676	28	284	1084	669	438	80	57	20	140	424

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.95	0.85	0.95	0.89	0.89	0.99	0.99	0.85
Lanes:	1.00	1.92	0.08	1.00	2.00	1.00	1.00	1.17	0.83	0.12	0.88	1.00
Final Sat.:	1805	3446	143	1805	3610	1615	1805	1970	1412	236	1653	1615

Capacity Analysis Module:												
Vol/Sat:	0.03	0.20	0.20	0.16	0.30	0.41	0.24	0.04	0.04	0.08	0.08	0.26
Crit Moves:	****					****	****					****
Green/Cycle:	0.03	0.26	0.26	0.21	0.44	0.44	0.26	0.26	0.26	0.28	0.28	0.28
Volume/Cap:	0.95	0.76	0.76	0.76	0.69	0.95	0.95	0.16	0.16	0.31	0.31	0.95
Uniform Del:	48.4	34.1	34.1	37.2	22.6	27.0	36.5	28.9	28.9	28.5	28.5	35.4
IncrementDel:	102.9	3.6	3.6	8.6	1.3	21.9	28.9	0.1	0.1	0.3	0.3	29.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	151.4	37.8	37.8	45.8	23.9	48.9	65.5	28.9	28.9	28.9	28.9	64.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	151.4	37.8	37.8	45.8	23.9	48.9	65.5	28.9	28.9	28.9	28.9	64.9
LOS by Move:	F	D	D	D	C	D	E	C	C	C	C	E
HCM2kAvgQ:	4	12	12	10	15	25	18	2	2	4	4	18

Note: Queue reported is the number of cars per lane.
