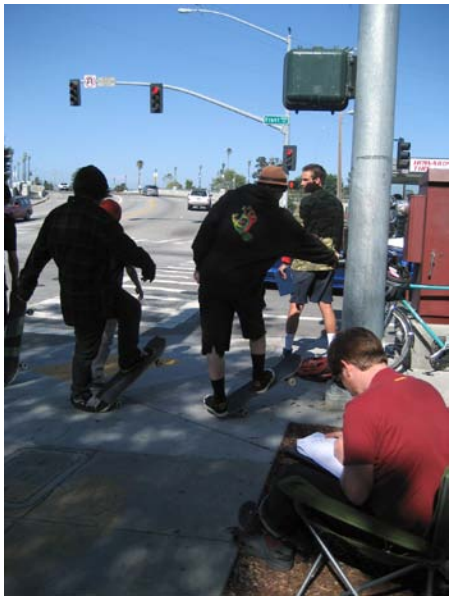

Santa Cruz County

May 2012 Bike and Pedestrian Count Report

SCCRTC

COMMUNITY TRAFFIC SAFETY COALITION

A collaborative project between the Regional Transportation Commission, the Community Traffic Safety Coalition and the University of California Santa Cruz IDEASS Program

May 2013

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Santa Cruz County
May 2012 Bike and Pedestrian Count Report

A collaborative project between the Regional Transportation Commission, the Community Traffic Safety Coalition and the University of California Santa Cruz IDEASS Program

May 2013

Project Coordinators

- **Ryan Heywood**, University of California Santa Cruz, IDEASS Student
- **Ginger Dykaar**, Santa Cruz County Regional Transportation Commission, Transportation Planner
- **Theresia Rogerson**, County of Santa Cruz Health Services Agency and the Community Traffic Safety Coalition, Health Educator
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See Appendix A for List of Volunteers that contributed greatly to this effort.

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Introduction

The Santa Cruz County Regional Transportation Commission (RTC) partnered with the County of Santa Cruz Community Traffic Safety Coalition (CTSC) and the University of California Santa Cruz IDEASS Program to perform bicycle and pedestrian counts throughout the county in May of 2012. The Community Traffic Safety Coalition has performed seven bicycle safety observation surveys and counts at approximately 40 locations over the past ten years. In addition to the bicycle observation surveys and counts conducted by the CTSC this year, the RTC used the National Bicycle and Pedestrian Documentation (NBPD) methodology for counting both bicyclists and pedestrians at 10 of these locations. Motor vehicle counts were also collected at these 10 locations and at the same times as the bicyclist and pedestrian counts.

The objectives of this study were to:

- collect data on the number of people bicycling and walking in Santa Cruz County for planning bicycle and pedestrian infrastructure improvements,
- test the National Bicycle and Pedestrian Documentation methodology for establishing a bicycle and pedestrian count collection protocol for Santa Cruz County,
- gather mode split information (bicycle, pedestrian and motor vehicle) to assess how people travel,
- collect data at regular intervals for measuring pedestrian and bicycle ridership trends and monitoring the progress of our county in moving towards a more sustainable transportation system.

The results of the CTSC bicycle observation survey portion of the study can be found on the Community Traffic Safety Coalition website by scrolling down on the Safety Info page (http://www.sctrafficsafety.org/).

Key Findings

Based on the bicycle, pedestrian and motor vehicle data collected in May 2012, our findings indicate:

- The largest number of bicyclists observed during this count were at intersections in the City of Santa Cruz and Mid-county, including Capitola
- The top three intersections with the greatest number of bicyclists that were counted during this time period were Bay Dr. and High St.(UCSC); Seabright Ave. and Murray St.; and Front St. and Laurel St.
- There is an overall upward trend over the last 10 years in the bicycle ridership for Santa Cruz County
- Average mode share at the 20 locations measured was 93.6% motor vehicle, 2.7% bike and 3.7% pedestrian.
- The highest bicycle mode share (10.9%) was on Bay Dr (south of High St) in the City of Santa Cruz.

- The highest pedestrian mode share (20.2%) was on Maple Ave (west of Union St) in the City of Watsonville.

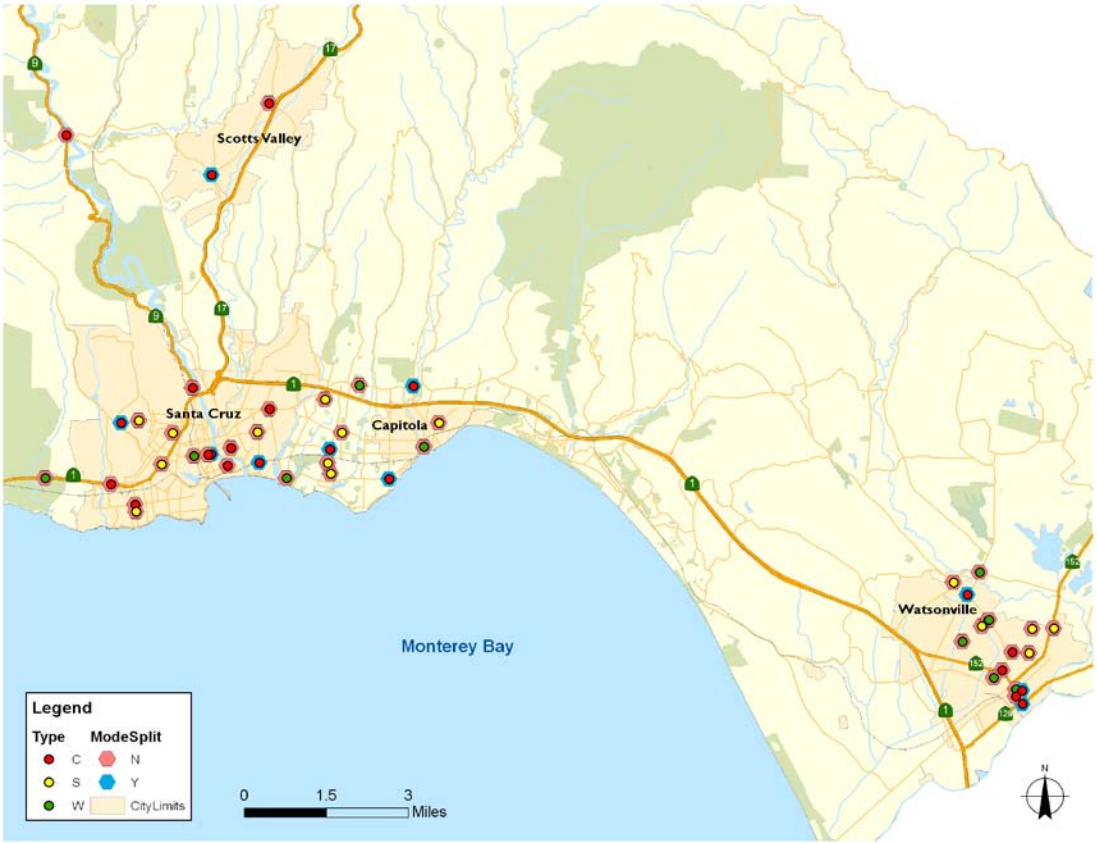
Methodology

Two distinct count methodologies were used for this study. The CTSC bicycle observation study has been performed for a number of years and can be used to establish trends. The RTC bicycle and pedestrian counts used the NBPD methodology and together with motor vehicle counts provides mode split data.

Bicycle Observation/Count Survey

Bicycle counts were conducted during the CTSC observation surveys at 46 locations throughout Santa Cruz County (Figure 1). More detailed maps of the count locations can be found in Appendix B, Figures B-1 through B-4. All of the locations for the 2012 survey were the same as used in previous observation surveys, except for three school sites added in 2009, and five more school sites added in 2012.

Figure 1: Map of CTSC Count Locations in Santa Cruz County



The survey was taken primarily between May 15 and June 1, 2012 with some surveys taken up until mid-June, 2012. These dates were chosen to represent a "typical" spring commute day. Collection dates took into consideration that UCSC

and Cabrillo College were still in session and that other events that could significantly increase or decrease ridership/pedestrian travel were not occurring such as Bike to Work/School week and the Amgen Tour of California professional bicycle race. Bike counts in May have typically been taken after Bike to Work/School week which may affect the bike count totals.

The survey included three types of locations: commuter (C), school (S), and weekend (W). The commuter and weekend sites were conducted at intersections and the locations of the school sites are listed at the bottom of Table 1. The commuter sites were observed on Tuesdays, Wednesdays or Thursdays from 4:00 pm to 6:00 pm. School sites were observed on Tuesdays, Wednesdays or Thursdays for one hour with the count starting 45 minutes before school begins. Weekend sites were observed from 11:00 am to 1:00 pm on a Saturday or Sunday. One survey/count was conducted for each site.

Thirty-four volunteers and RTC/CTSC staff conducted the observations/counts. Each observer had a sheet to collect data on bicyclists that included approximate age, gender, whether they were wearing a helmet, riding with traffic, stopping at a stop sign or red light, and riding on the sidewalk. It's important to note that wearing helmets is required by law only for those under the age of 18. Given the safety benefits of helmet use, data was collected to measure how well the education message penetrated across all age groups. Also, bicycle riding on sidewalks is not prohibited in all municipalities although it is not recommended for the majority of the bicycle population (excluding youth and the elderly) due to increased collision risk.

Observations were collected on all bicyclists passing through the intersection which provides a count of bicyclists during this time period. Also recorded were date, day of the week, and weather conditions. Observers were given instructions and a data collection tool to ensure reliable results.

National Bicycle and Pedestrian Documentation Bicycle and Pedestrian Counts

Ten of the CTSC locations were chosen to perform an additional bicycle count as well as a pedestrian count using the National Bicycle and Pedestrian Documentation methodology (Figure 1 and Figures B-1 to B-4). The NBPD was developed by the Institute of Transportation Engineers Pedestrian and Bicycle Council and Alta Planning and Design to establish a consistent nationwide methodology for bicycle and pedestrian counts. The methodology aims to establish:

- Consistent days and times
- Consistent count locations
- Consistent methods and materials
- Background documentation of each location
- Open access to bicycle and pedestrian trend data nationwide

Bicyclist counts record the direction from which bicyclists travel and their turning movement through the intersection broken down in 15 minute intervals (Figure 2).

Pedestrian counts record the direction (but not turning movement) from which they travel in 15 minute intervals (Figure 3).

Figure 2. Example Bike Count Tally Sheet for One 15 Minute Interval

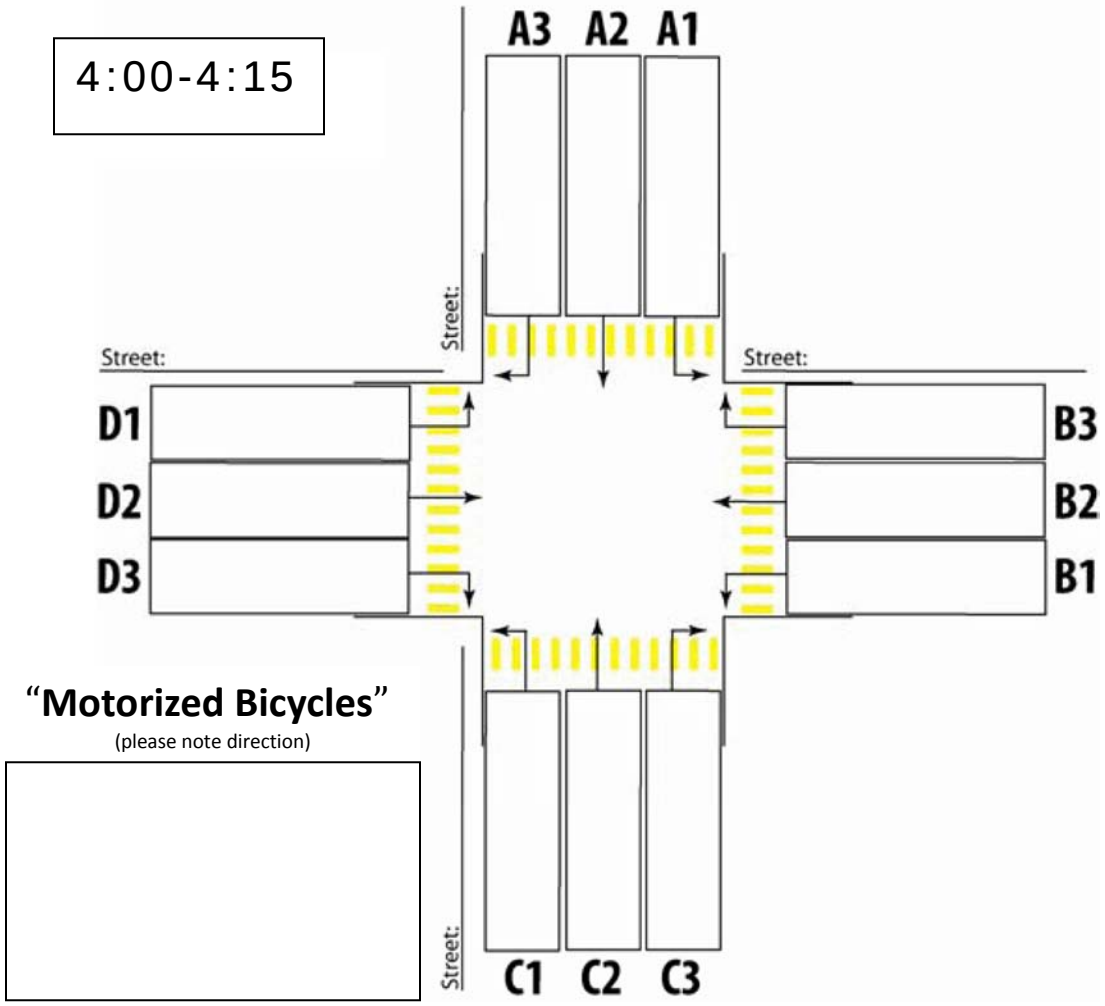
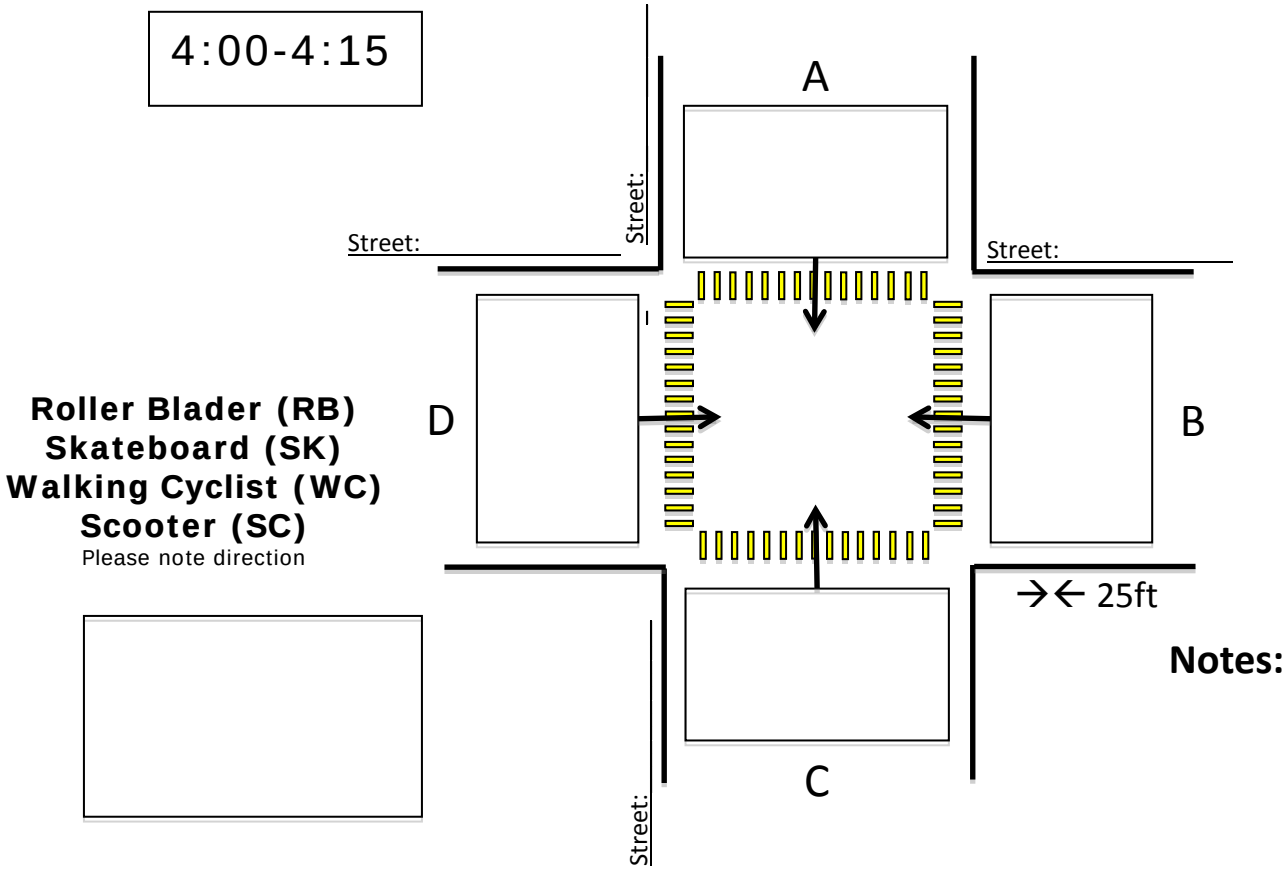


Figure 3. Example Pedestrian Count Tally Sheet for One 15 Minute Interval



The 10 locations were chosen based on bicycle volumes as determined from past CTSC bike observation/count surveys and previous City of Santa Cruz bicycle count locations. The NBPD counts took place on May 15th, 16th, 17th (Tuesday, Wednesday and Thursday from 4-6 pm), 2012 as recommended by the NBPD methodology. The bicycle observation surveys at these 10 locations were also taken at the same time.

The NBPD recommends counting at one location for every 15,000 residents. Given the most recent 2011 estimate of Santa Cruz County's population (264,298), this would equate to counting at roughly 18 sites. The total number of bicycle counts taken throughout the county (46) far exceeds this recommendation. The bicycle and pedestrian counts using the NBPD methodology were only collected at 10 intersections due to resource limitations.

Twenty-one volunteers manually counted bike and pedestrian traffic using standardized count forms and procedures based on the NBPD protocol and customized for our study. Each volunteer counter was individually trained on how to properly use the forms prior to count dates, and was provided with a folder with all count materials prepared (map of assigned location, count forms, instructions sheet, pencils, and a public flier in the event the observer is asked questions about the count). Each location had between one and four volunteers to collect data. High

volume sites such as High St & Bay Dr. near UCSC had two pedestrian and two bicycle counters for the NBPD counts to balance the data collection efforts among volunteers and insure accuracy. Lower volume sites had one volunteer for counting both bike and pedestrian activity.

Bicycle counts include the number of people on a bike (not the number of bikes), motorized bicycles or mopeds and people walking their bicycles. Pedestrian counts include people using a wheelchair, stroller, skateboard, scooter and roller blades. Typical protocol counts people walking their bikes as pedestrians and not bicyclists and people walking their bikes will likely be counted as pedestrians in future counts.

Motor Vehicle Counts

Motor-vehicle data was also simultaneously collected via automated pressure hose counters in 15 minute intervals at 2 roadway crossings at each of the 10 intersections (20 motor vehicle counts total). This data was combined with the bicycle and pedestrian data to provide mode split information at these 20 locations in order to assess how people travel in our county. Vehicle occupancy was not collected during this count but would be worthwhile to collect in future counts for including carpool into the mode split analysis.

Results

Bicycle Observation/Count Survey

The bicycle observation/count survey is conducted primarily for observing bicycle safety behaviors. Because of this emphasis, the counts from this data collection effort may not be a fully accurate representation of the total number of bicyclists that traveled through the intersections during this time. It is possible that the observer, being occupied with capturing all the behavior observations, may have not been able to count all bicyclists. With this consideration in mind, bicycle count data collected through the CTSC observation surveys from 2003 through 2012 can be found in Table 1. There is an overall increase in ridership from 2010 to 2012 of 3%. This was determined by calculating the increase in counts for 2012 (taking out counts at new locations) compared to 2010. The trends in bicycle ridership for different areas of the county were averaged and plotted in Figure 4. Trend data calculated using a least squares linear regression for these averaged data show that there is an overall increase in ridership in Santa Cruz County since 2003.

Table 1: CTSC bicycle count data for Santa Cruz County
(C=commute 4-6pm Mon-Fri, W=weekend 11am-1pm Sat/Sun, S = school 1 hr based on school start time)

Type	Mode Split	Site	Location	2003	2006	2007	2008	2009	2010	2012
W	N	E. Cliff Dr. & Wharf Road, Capitola	Capitola	199	152	155	108	138	167	158
C	N	Ocean Street & Barson	City of Santa Cruz - Beach Flats	73	72	69	64	66	93	49

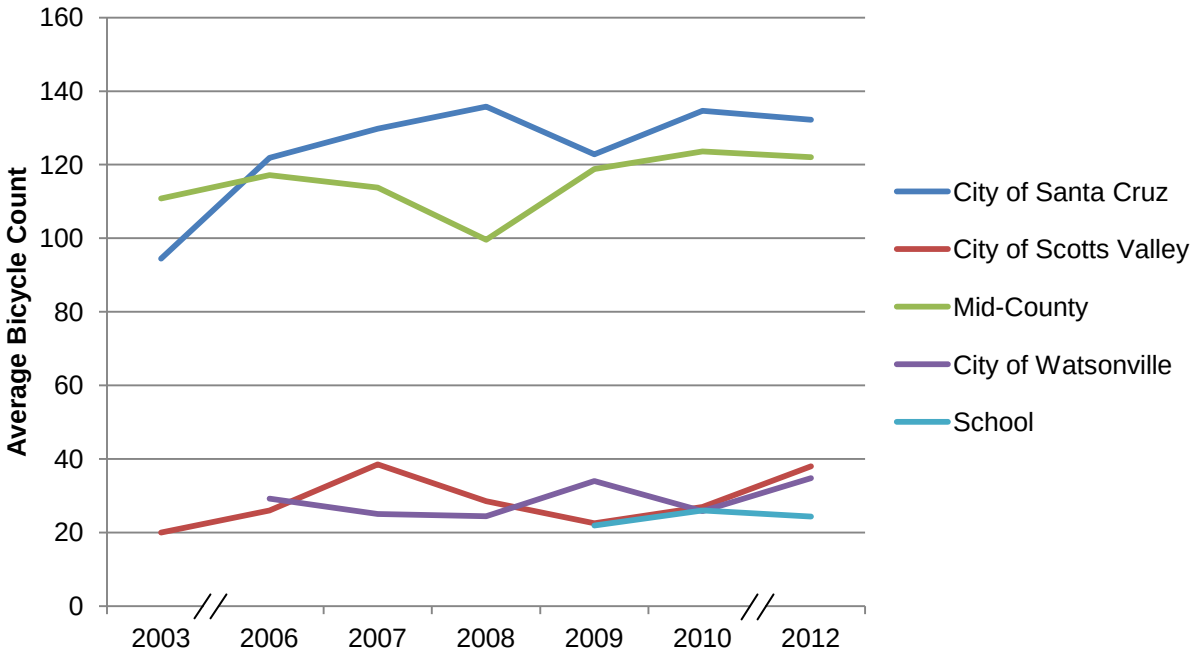
Type	Mode Split	Site	Location	2003	2006	2007	2008	2009	2010	2012
C	N	Riverside, Leibrandt & Second St.	City of Santa Cruz - Beach Flats	41	62	68	73	88	48	73
C	Y	Front Street & Laurel Street	City of Santa Cruz - Downtown	163		223	291	206	250	221
W	N	Laurel Street & Chestnut	City of Santa Cruz - Downtown	117	117	117	120	103	111	95
C	N	Pacific & Laurel St	City of Santa Cruz - Downtown		267					
C	N	River Street & Encinal Street	City of Santa Cruz - Downtown	53	64	82	54	28	37	47
C	Y	Seabright & Murray	City of Santa Cruz - East Side	156	246	286	339	231	274	244
C	N	Soquel Avenue & Frederick Street	City of Santa Cruz - East Side	112	139	129	176	144	124	152
W	N	Soquel Drive & Winkle Avenue	City of Santa Cruz - East Side	35	51	48	70	54	59	46
C	Y	High Street & Bay (UCSC)	City of Santa Cruz - Westside	229	160	227	122	280	316	365
C	N	Mission Street & Western Drive	City of Santa Cruz - Westside	41	58	72	46	54	33	47
C	N	Swift Street & Delaware	City of Santa Cruz - Westside	19	105	107	139	97	136	115
C	N	Granite Creek & Scott's Valley Dr	Scotts Valley	32	34	40	22	21	25	30
C	Y	Mt. Herman & Scott's Valley Dr	Scotts Valley	8	18	37	35	24	29	46
W	N	Hwy 1 at Wilder Ranch	Unincorporated County - Davenport	97	95	84	43	78	79	80
C	Y	Brommer & 17th	Unincorporated County - Live Oak	71	114	104	122	123	101	127
W	N	East Cliff & 7th Ave.	Unincorporated County - Live Oak	152	163	106	82	112	153	126
C	Y	Portola Ave. & 41st, Capitola	Unincorporated County - Opal Cliffs	79	98	108	122	145	128	117
C	N	Hwy 9 & Graham Hill	Unincorporated County - SLV	7	12	19	15	21	20	24
C	Y	Soquel Dr. & Porter St., Soquel	Unincorporated County - Soquel	53	59	96	64	76	69	82
W	N	Freedom & Alta Vista	Watsonville	25	38	20	21	37	21	34
C	N	Freedom Blvd. & Alta Vista Ave.	Watsonville	16	38	35	21	47	46	42
C	Y	Freedom Blvd. & Green Valley	Watsonville	34	40	46	50	21	32	38
C	N	Freedom Blvd. & Main Street	Watsonville	24	13	24	17	37	22	38
W	N	Green Valley Rd. & Holohan Rd.	Watsonville		8	14	16	21	10	33
C	N	Lincoln Street & High Street	Watsonville	13	13	10	14	27	17	16
W	N	Main Street & East Beach Street	Watsonville		70	24	38	44	43	61
C	Y	Main Street & Rodriguez Street	Watsonville	43	46	28	24	25	26	43
C	Y	Maple Ave. & Union Street	Watsonville	39	26	38	44	63	28	52
W	N	Pennsylvania & Clifford	Watsonville	10	8	12	12	14	31	18

Type	Mode Split	Site	Location	2003	2006	2007	2008	2009	2010	2012
W	N	Rodriguez & Ford	Watsonville		17	18	13	34	9	16
C	N	Second Street & Rodriguez Street	Watsonville	36	34	32	23	38	25	26
S	N	New Brighton Middle School	School - Capitola				23	17	17	26
S	N	Bay View Elementary	School - City of Santa Cruz							66
S	N	Gault Elementary	School - City of Santa Cruz	24	33	19	40	25	39	55
S	N	Mission Hill Middle School	School - City of Santa Cruz	38	9	46	66	75	70	55
S	N	Natural Bridges Elementary	School - City of Santa Cruz	25						
S	N	Pacific Collegiate Charter School	School - City of Santa Cruz		21	25				
S	N	Westlake Elementary	School - City of Santa Cruz							51
S	N	Del Mar Elementary	School - Unincorporated County							8
S	N	Green Acres Elementary	School - Unincorporated County					19	34	8
S	N	Live Oak Elementary	School - Unincorporated County	29	50	44	39	37	54	27
S	N	Shoreline Middle School	School - Unincorporated County							35
S	N	Ann Soldo Elementary	School - Watsonville					6	4	26
S	N	Freedom Elementary	School - Watsonville					1	11	11
S	N	H.A. Hyde Elementary School	School - Watsonville							6
S	N	MacQuiddy Elementary	School - Watsonville				10	5	0	6
S	N	Mintie White Elementary	School - Watsonville	4	5	4	4	12	5	5

Observation Locations for Schools

New Brighton Middle School—on Monterey Ave, in front of the school OR at Monterey and Washburn
Bay View Elementary - on Bay St. in front of school
Gault Elementary—Seabright and Broadway
Mission Hill Middle School –on King St in front of the school
Natural Bridges Elementary-- in front of school
Pacific Collegiate Charter School—in front of school
Westlake Elementary - High St. and Moore St
Del Mar Elementary - Merril St. and Jamie Ln.
Green Acres Elementary—on school property, at the end of the turn around, between the two Bostwicks
Live Oak Elementary—Capitola and Chanticleer
Shoreline Middle School - 17th Ave. and Felt St.
Ann Soldo Elementary—Wagner and Vista Montana
Freedom Elementary—Airport and Freedom
H.A. Hyde Elementary School - on Alta Vista Ave in front of school between Santa Clara St. and Marilyn St.
MacQuiddy Elementary—in front of the school
Mintie White Elementary—Brennan and Palm

Figure 4: Average bicycle count data for various areas throughout Santa Cruz County (May 2012)*



*Note: All count data was collected over a 2 hour period except school sites were collected for 1 hour based on school start time.

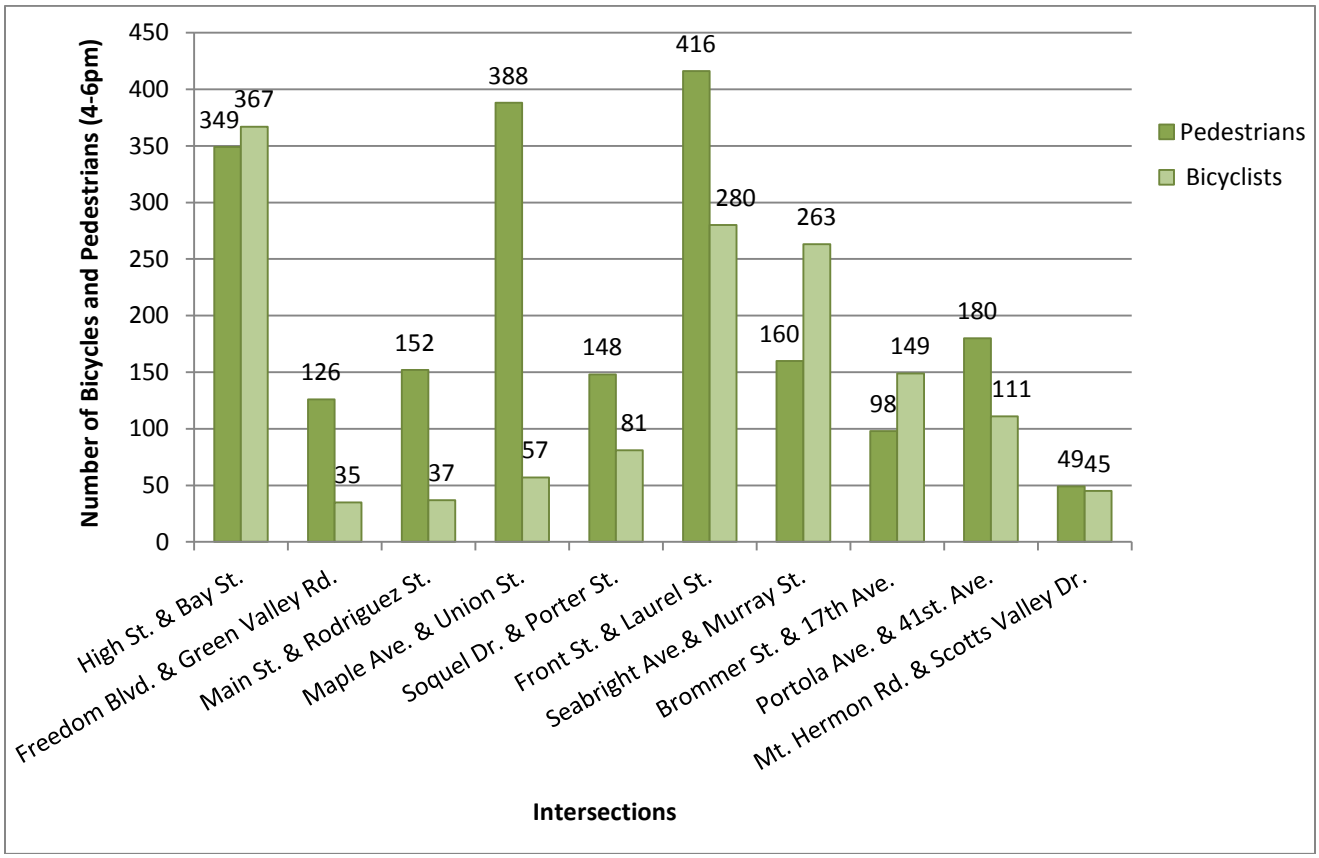
NBPD Bicycle and Pedestrian Counts

The bicycle and pedestrian count data collected at the 10 intersection locations over the 2 hour time period are shown in Figure 5. The weather was sunny and clear on all three count days with slightly windy conditions on the last day (Thursday, May 17th).

The locations with the highest bicycle counts during the data collection were High St and Bay Dr., Front St and Laurel St, and Seabright Ave. and Murray St. which are all in the City of Santa Cruz. Pedestrian counts were highest at Front St and Laurel St. in City of Santa Cruz, Maple Ave. and Union St. in Watsonville, and High St and Bay Dr. in City of Santa Cruz. There were 2,066 pedestrians and 1,425 bicyclists observed at these 10 intersections during this data collection effort.

The results from these counts have been sent to the NBPD national database in an effort to standardize and document bicycle and pedestrian demands similar to motor-vehicle counts.

Figure 5: NBPD Bicycle and Pedestrian Counts



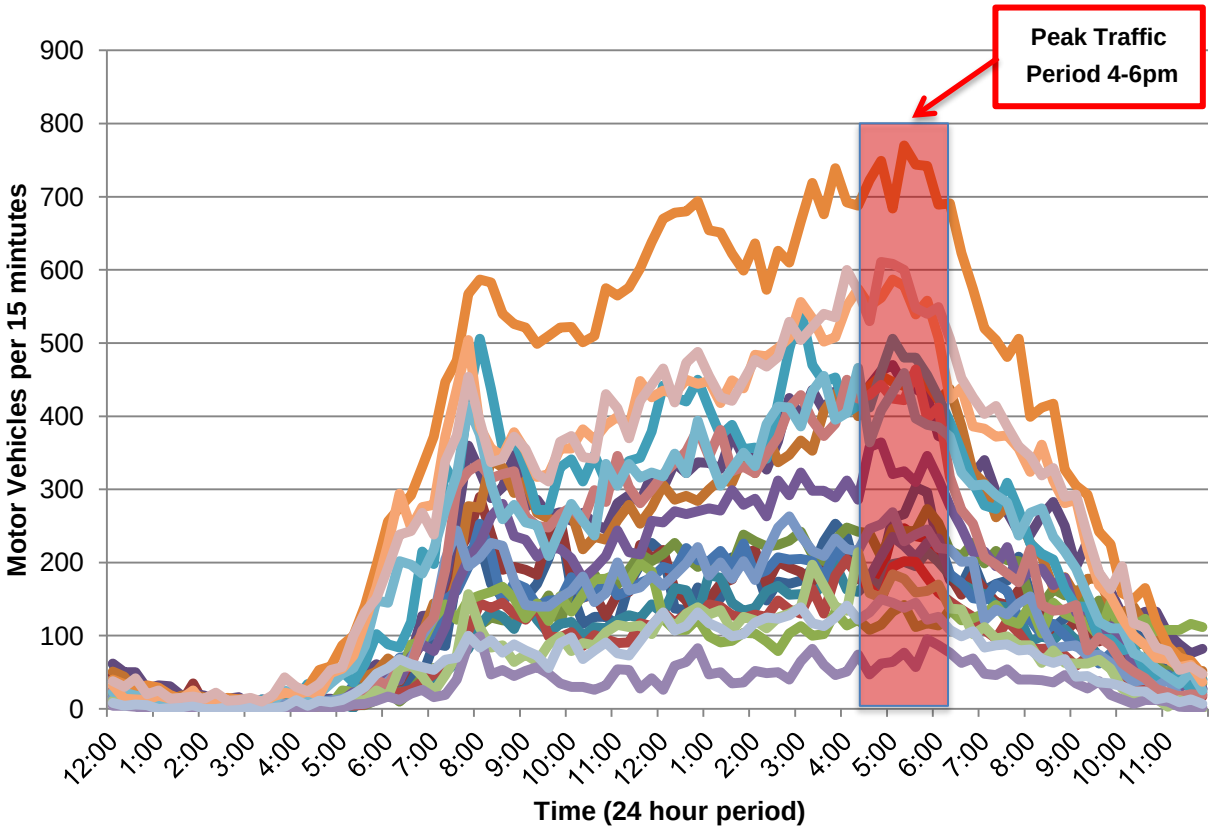
Motor Vehicle Counts

Motor vehicle counts were taken using pressure hose counters at 2 roadway crossings for each of the 10 intersections of the NBPD count locations for a total of 20 motor vehicle counts. Those count locations are listed in Table 2. Figure 4 represents motor-vehicle traffic volumes at each crossing recorded over a 24 hour period during each count day. The red highlighted section displays the 4-6pm time period that bicyclists and pedestrians were counted.

The NBPD methodology recommends counting bicyclists and pedestrians at a time that typically has the largest volume of travelers. As shown in Figure 6, 4-6pm was the appropriate time slot as the majority of locations had peak motor-vehicle numbers during this time. The evening commute spiked around 5pm as people were leaving work, school, or afternoon shopping.

Complete motor-vehicle data was collected from each location during the same day as the bicycle and pedestrian counts except for one site. On Thursday May 17th, a pressure hose counter was broken along Portola Ave. The counter was replaced and motor-vehicle data for this site was recorded on the following Tuesday, May 22nd.

Figure 6: Motor Vehicle Counts over 24 Hour Period (May 15, 16, or 17, 2012)



Mode Split

The percentage of motor vehicles, bicyclists and pedestrians (mode split) was determined for the 20 motor vehicle hose count roadway crossing locations (Table 2). The results show that the bicyclist mode share at these 20 roadway crossings ranges from 0.6% to 10.9% and the pedestrian mode share ranges from 0.5% to 20.2%. Average mode share at the 20 locations measured was 93.6% motor vehicle, 2.7% bike and 3.7% pedestrian. The highest bicycle mode share (10.9%) was on Bay St (south of High St) in City of Santa Cruz and the highest pedestrian mode share (20.2%) was on Maple Ave (west of Union St) in the City of Watsonville.

The mode split data was determined based on the number of users of each mode that passed over the hose count location. The bicycle counts recorded the direction each bicyclist traveled and their turning movements and thus the exact number of bicyclists crossing over the hose count location could be determined. The pedestrian counts recorded only the direction from which each pedestrian traveled and thus it was assumed that their direction of travel was straight across the intersection in order to estimate the mode split for each hose count location. Future pedestrian count data for mode split analysis would more accurately determine mode split if the direction the pedestrian was traveling from and their turning movements was recorded.

The methods by which volunteers counted motorized bicyclists, people walking their bikes, people on skateboards, scooters and roller blades were not always consistent. Effort will need to be made to more extensively train future volunteers to make sure there is consistency in the count methodology.

Table 2: County-Wide Mode Split Counts 2012
Data was collected Tues-Thurs, May 15-17, 4-6 pm

			Motor Vehicles		Bicycles		Pedestrians	
Date	**Location**	**Street**	**Total**	**%**	**Total**	**%**	**Total**	**%**
5/15/2012	City of Santa Cruz	Bay St (S of High St)	1910	80.9%	257	10.9%	195	8.3%
5/15/2012	City of Santa Cruz	High St (E of Bay St)	1704	86.7%	107	5.4%	154	7.8%
5/16/2012	City of Santa Cruz	Front St (N of Laurel St)	1943	86.1%	114	5.1%	199	8.8%
5/16/2012	City of Santa Cruz	Laurel St (E of Front St)	3498	89.7%	212	5.4%	191	4.9%
5/17/2012	City of Santa Cruz	Seabright Ave (N of Murray St)	1475	85.8%	108	6.3%	137	8.0%
5/17/2012	City of Santa Cruz	Murray St (E of Seabright Ave)	3533	94.0%	204	5.4%	23	0.6%
5/16/2012	Live Oak	Brommer St (W of 17th Ave)	1474	92.4%	75	4.7%	46	2.9%
5/16/2012	Live Oak	17th Ave (N of Brommer St)	1668	93.8%	59	3.3%	52	2.9%
5/17/2012	Opal Cliffs	Portola Dr (W of 41st Ave)*	2622	95.1%	71	2.6%	65	2.4%
5/17/2012	Opal Cliffs	41st Ave (N of Portola Dr)	1674	91.0%	50	2.7%	115	6.3%
5/17/2012	Scott's Valley	Mt Hermon Rd (NW of Scott's Valley Dr)	5792	99.5%	4	0.1%	28	0.5%
5/17/2012	Scott's Valley	Scott's Valley Dr (NE of Mt Hermon Rd)	3615	98.7%	25	0.7%	21	0.6%
5/16/2012	Soquel	Soquel Dr (W of Porter St)	3453	96.3%	56	1.6%	76	2.1%
5/16/2012	Soquel	Porter St (S of Soquel Dr)	1913	95.4%	22	1.1%	71	3.5%
5/15/2012	Watsonville	Maple Ave (W of Union St)	527	77.2%	18	2.6%	138	20.2%
5/15/2012	Watsonville	Union St (N of Maple Ave)	1340	81.9%	46	2.8%	250	15.3%
5/15/2012	Watsonville	Freedom Blvd (E of Green Valley Rd)	4500	98.3%	18	0.4%	60	1.3%
5/15/2012	Watsonville	Green Valley Rd (S of Freedom Blvd)	3320	97.6%	17	0.5%	66	1.9%
5/15/2012	Watsonville	Main St (W of Rodriguez St)	4608	96.5%	36	0.8%	130	2.7%
5/15/2012	Watsonville	Rodriguez St (S of Main St)	1095	98.1%	7	0.6%	14	1.3%
		Total Mode Split	51664	93.6%	1506	2.7%	2031	3.7%

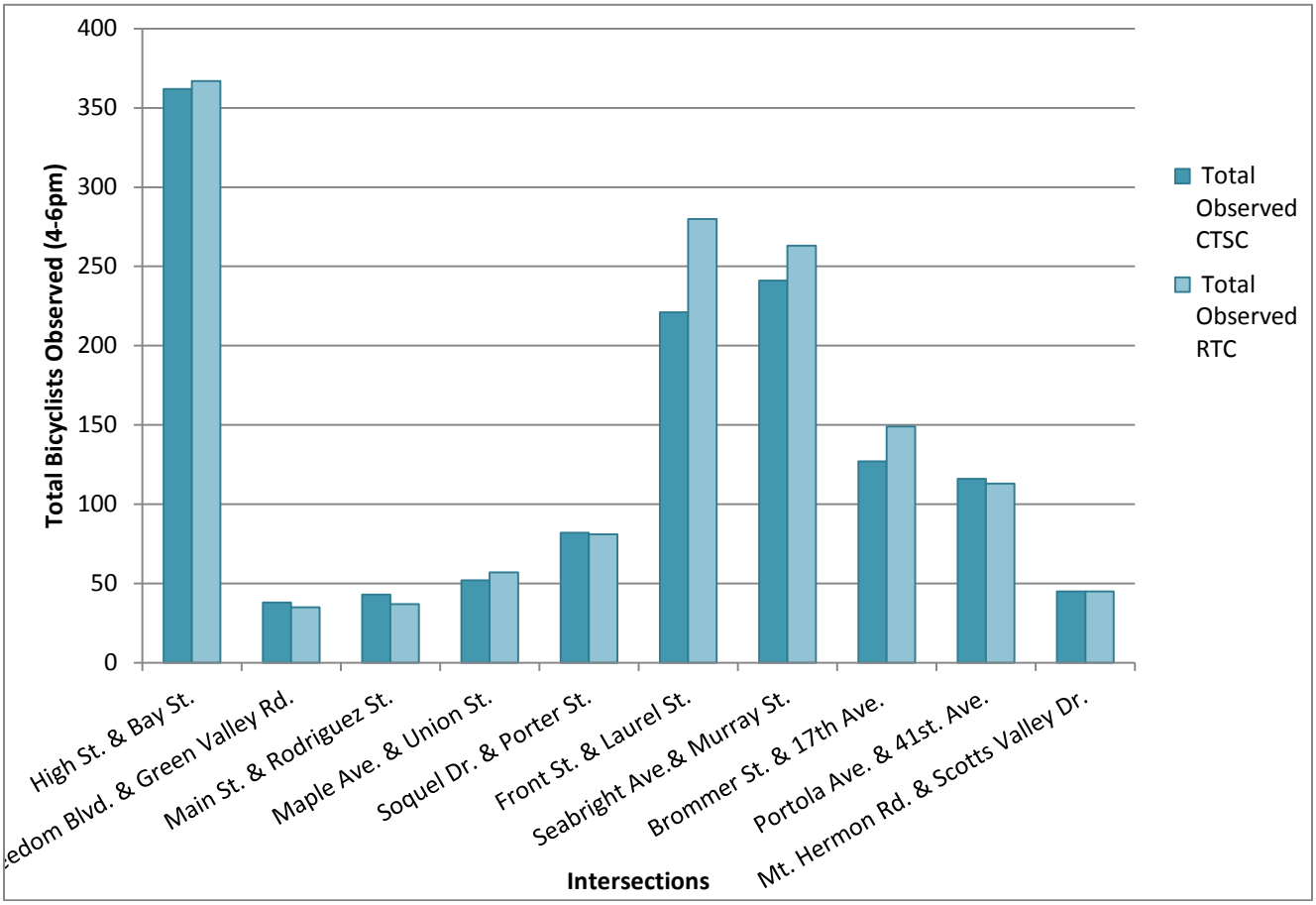
*Note: Motor data was collected on May 22nd instead of May 17th, due to a broken hose counter on May 17th.

RTC NBPD Bicycle Counts versus CTSC Bicycle Counts

The CTSC and RTC partnered in collecting bicycle data at each location during the same time period. Both agencies had different methods and separate volunteers for recording bicycle data. If both counting processes were error free, then both

agencies would have recorded the same bicycle volumes for each site. Discrepancies were observed when comparing bicycle totals from each agency (Figure 7).

Figure 7: Comparison of Bicycle Counts Observed Using Different Methodologies



The data collected through the CTSC observation survey involves recording cyclist age, helmet use, riding with traffic, riding on the sidewalk, and obeying traffic signals which is much more data intensive than counting the direction of bicyclists entering and exiting the intersection. The potential for miscounting was perceived to be higher for the CTSC observation survey count than the RTC count but this was not always the case as is seen in Figure 5. The large discrepancy at Front St and Laurel St. was due to one volunteer not showing up which left only one volunteer to observe/count in all 4 directions.

The accuracy in the data collection would likely be increased by:

- Recruiting a sufficient number of volunteers for each location and having back up volunteers if volunteers cancel at the last minute
- Separating volunteers to reduce distraction so all bicyclists are counted

- Training volunteers well on the method for data collection and emphasizing the importance of being on time and counting all bicyclists during that 2 hour time period
- Ensuring consistency in what is considered a "bicyclist" and "pedestrian" (i.e. how electric bikes, people walking their bikes, scooters, skateboarders, roller bladders and children in strollers are counted)

Conclusions

Santa Cruz County, with its ever increasing bicycle transportation network, offers bicycling enthusiasts and beginners alike a wonderful opportunity to get around by bike. In order to assess the number of people who are traveling by bike, it is critical to establish a count methodology that is consistent across the county and over time. This data collection effort can be used to facilitate planning for bicycle infrastructure improvements as well as monitor our county's progress towards a more sustainable transportation system. Future counts that are taken within Santa Cruz County would be most comparable to past counts if the following recommendations are followed.

Bicycle Counts

- Commute, weekend and school counts taken at 46 locations throughout Santa Cruz County as currently defined by Community Traffic Safety Coalition (Table 1 and Figures B-1 to B-4)
- Commute counts taken from 4-6 pm on Tuesday, Wednesday or Thursday
- School counts taken for 1 hour starting 45 minutes before school starts on Tuesday, Wednesday or Thursday
- Weekend counts taken from 11-1 pm on Saturday (preferably) or Sunday
- Counts taken annually mid-May to end of May (with consideration for other events such as Bike to Work/School week and before end of semester at UCSC and Cabrillo)
- Counts will tally the number of people on bicycles entering the intersection from each direction (see example bicycle count sheet in Appendix C)
- Bicycle counts will include motorized bicycles with pedals (electric and gas) and will not include people walking their bikes

Mode Split Counts (Bicycle, Pedestrian and Motor Vehicle)

- Motor vehicle hose counts taken on 2 of the 4 roads entering the 10 intersection locations as in 2012
- Bicycle and pedestrian counts taken at the 10 intersections will indicate not only the direction the bicyclist or pedestrian is entering the intersection but also the direction in which they exit the intersection. This will allow for a more accurate mode split determination (see Appendix D for example mode split data collection sheets for bicycle and pedestrian counts)
- Mode Split data collected from 4-6pm on Tuesday, Wednesday or Thursday in the fall would provide a comparison of bicycle counts from spring to fall and not duplicate CTSC bike count efforts in spring.

- Bicycle counts will include electric motorized bicycles with pedals and will not include people walking their bikes
- Pedestrian counts will include people in wheelchairs, children in strollers, people walking their bikes, skateboarding, roller blading, and using their scooters

Previous bicycle and pedestrian counts that have been taken during the morning or evening commute period in Santa Cruz County from the year 2000 on can be found in Appendices E and F.

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Appendix A

Table A-1: List of Volunteers / Staff for May 2012 Count

RTC Bicycle and Pedestrian Count	CTSC Observation Survey
Michael Cutter	Byron Thomas
Allison Weis	Gary Milburn
Kellie Su	Katie LeBaron
Steve Walker	Kira Ticus
Thomas Hiltner	Jim Langley
Joshua Brown	Andy & Annie Kochalo
Kyle Davis	Peter Scott
Andrea Lee	Andy Ward
Thomas Pistone	Owen Gorman
Greg Jorgensen	Debbie Bulger
Cory Caletti	Curtis Swain
John Caletti	George Bunch
Karena Pushnik	Ginger Dykaar
Cheryl Schmitt	Theresia Rogerson
Grace Voss	Corinne Hyland
Marshall Roberts	Paula Satariano
Marcus Kevorkyan	Saskia Lucas
Jose Haya	Kathy Chavez
Emilie Holder	Rachel Moriconi
Danny Brooks	Kevin Bell
Robert Jones	Patricia Unruhe
	Andrea Silva
	Myrna Sherman
	Claudia Llamas-Padilla
	Richard Roullard
	Jeanne LePage
	Andrew Murray
	Matt Leal
	Eileen Cavalier
	Emilie Holder
	Patty Vargas
	Sarah Harmon
	Ryan Heywood
	Desiree Chavez

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Appendix B

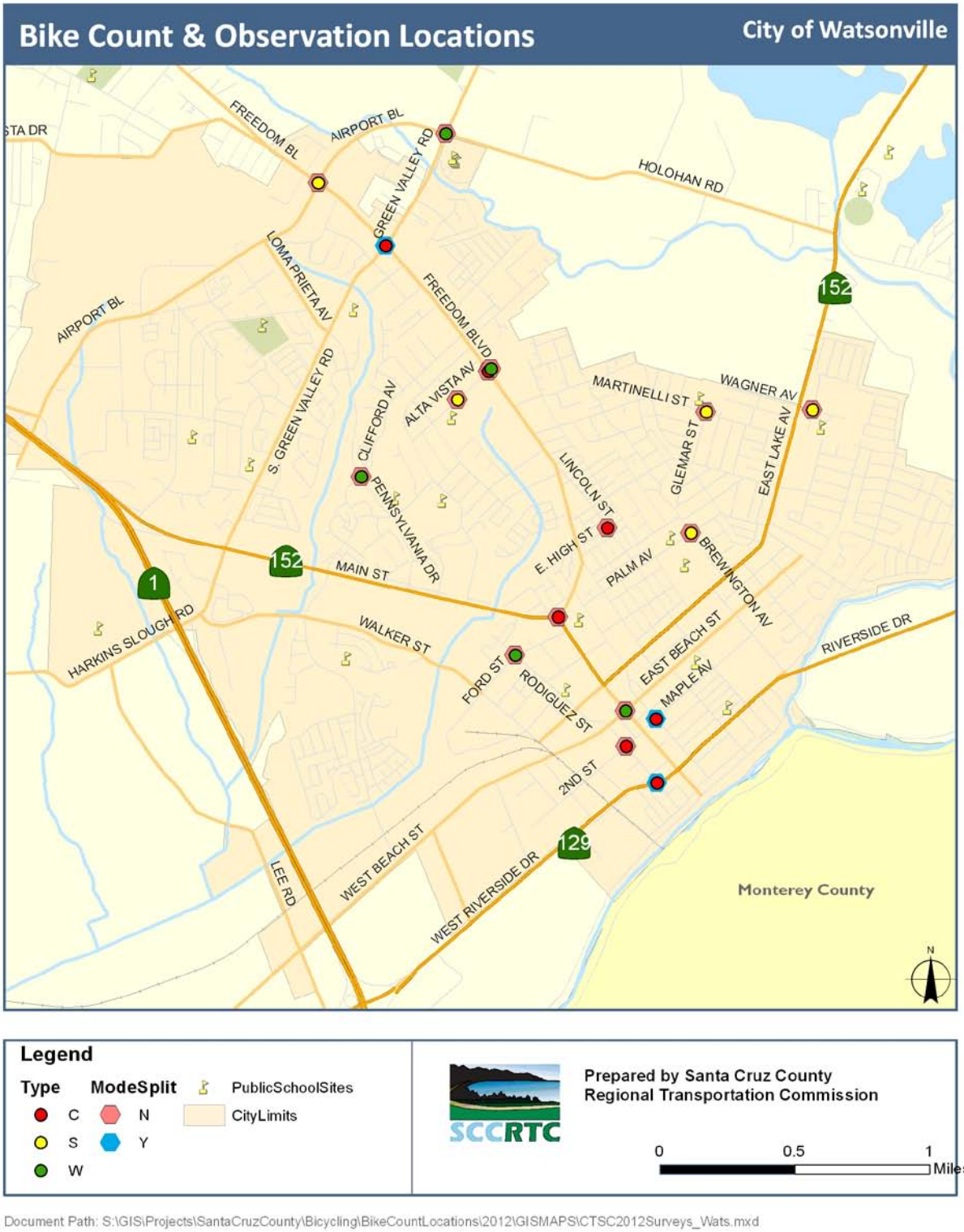
Table B-1: Bike Count & Observation Locations – City of Santa Cruz Area

Document Path: S:\GIS\Projects\SantaCruzCounty\Bicycling\BikeCountLocations\2012\GISMAPS\CTSC2012Surveys_SC.mxd

Table B-2: Bike Count & Observation Locations – Live Oak, Capitola, Soquel Areas

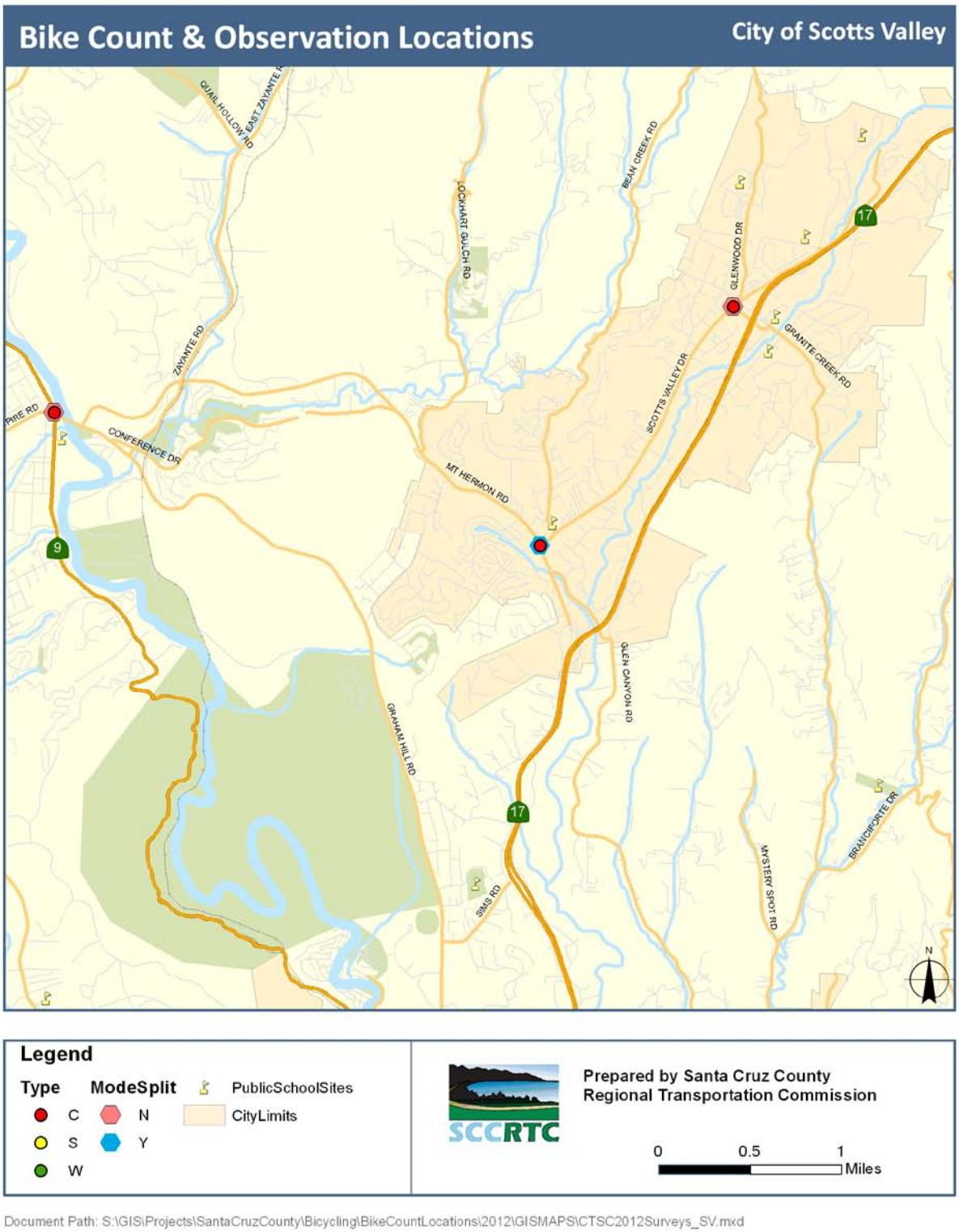
Document Path: S:\GIS\Projects\SantaCruzCounty\Bicycling\BikeCountLocations\2012\GISMAPS\CTSC2012Surveys_CAP_&_Un.mxd

Table B-3: Bike Count & Observation Locations –Watsonville Area



Document Path: S:\GIS\Projects\SantaCruzCounty\Bicycling\BikeCountLocations\2012\GISMAPS\CTSC2012Surveys_Wats.mxd

Table B-4: Bike Count & Observation Locations – Scotts Valley Area



Document Path: S:\GIS\Projects\SantaCruzCounty\Bicycling\BikeCountLocations\2012\GISMAPS\CTSC2012Surveys_SV.mxd

Appendix C

Bicycle Count Forms for Bicycle Trend Data

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Bicycle Intersection Count Form

Name:_____ Location:_____

Date: _____ Start Time:_____ End Time:_____

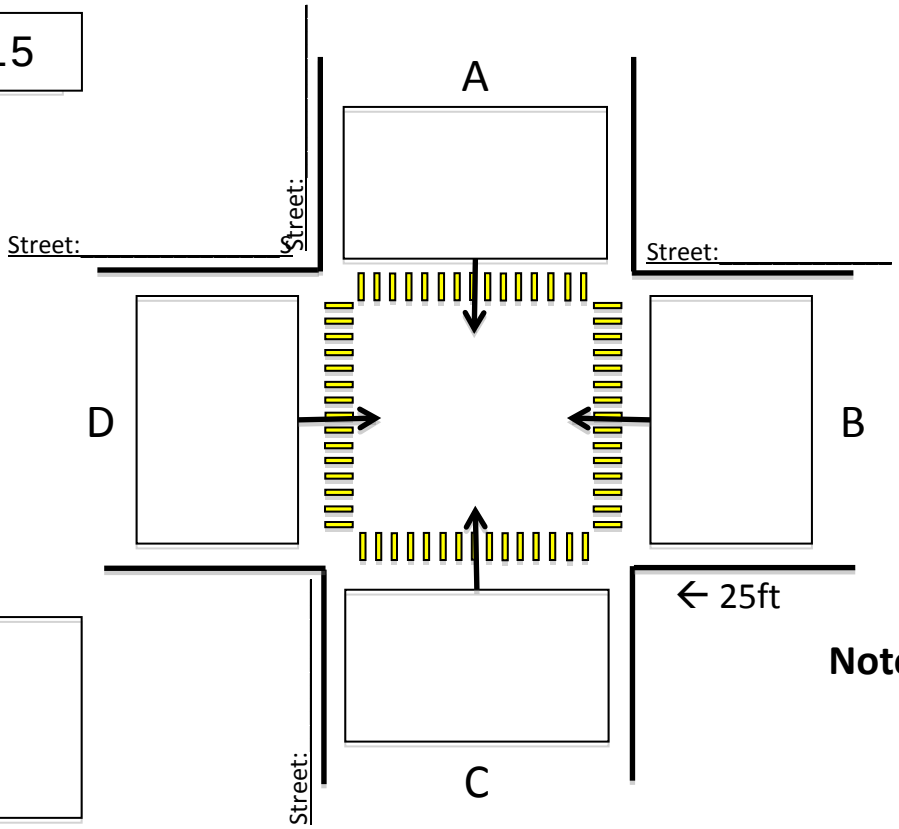
Weather:_____ (sunny, fair, cloudy, rainy, very cold)

-Instructions-

Please fill in your name, count location, date, time period, and weather conditions.
Count all bicyclists crossing through the intersection under the appropriate categories.

- **Count for two hours in 15-minute increments**
- **Use one intersection graphic per 15-minute interval**
- **Mark each intersection graphic with the street names and a landmark to orient the direction of the graphic relative to the real location**
- **Tally based on which direction the bikes are entering the intersection (where they are coming from)**
- **DO NOT COUNT PEOPLE WALKING THEIR BICYCLES as they are considered pedestrians.**
- **Count the number of people on the bicycle, not the number of bicycles. (kid trailers, child seats, tandems – keep an eye out for these and count appropriately)**
- **Count bicyclists who ride on the sidewalk and motorized bicycles with pedals (gas and electric) on the intersection graphic. Note: Do not count motorcycles or mopeds without pedals.**
- **In addition, record motorized bicyclists with pedals in the box "Motorized Bicycles" and remember to note direction (ex. Electric Bike-D)**
- **Use the notes section to record any behaviors, events, or actions that might affect count data (ex. car accident, weather changes)**

4:00-4:15

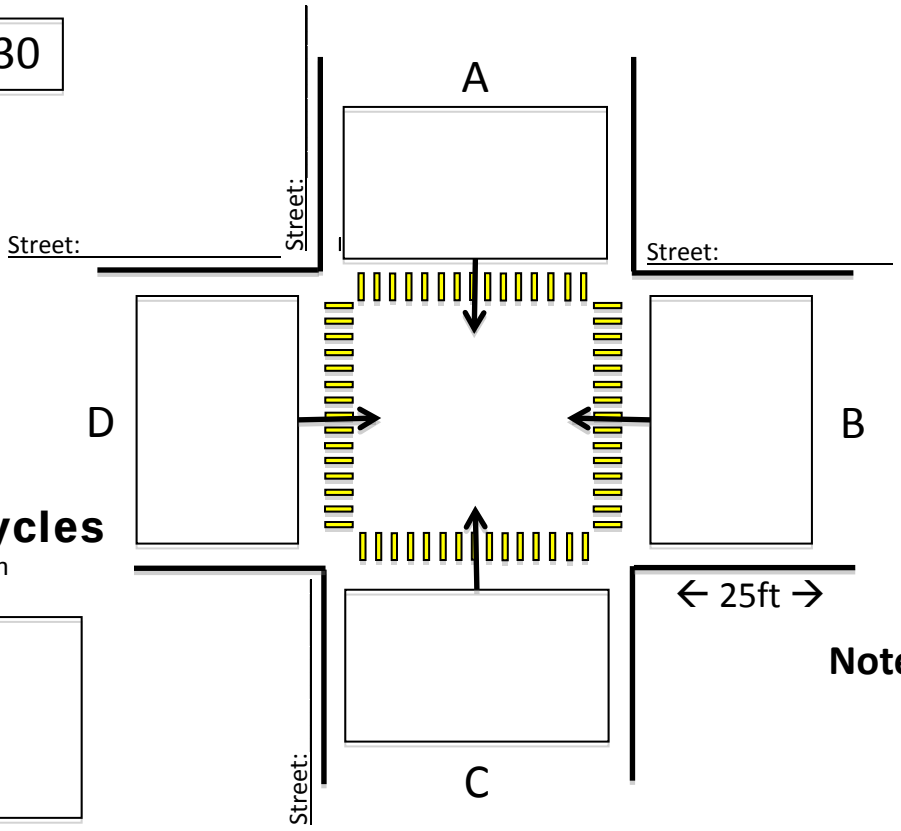


Motorized bicycles

Please note direction

Notes:

4:15-4:30

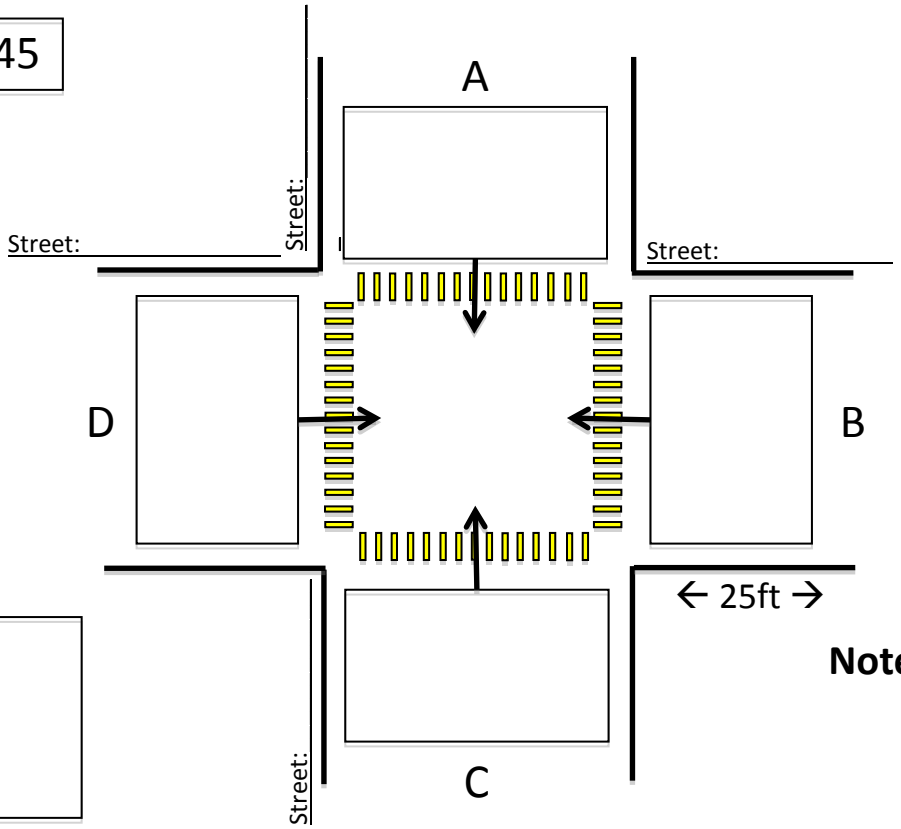


Motorized bicycles

Please note direction

Notes:

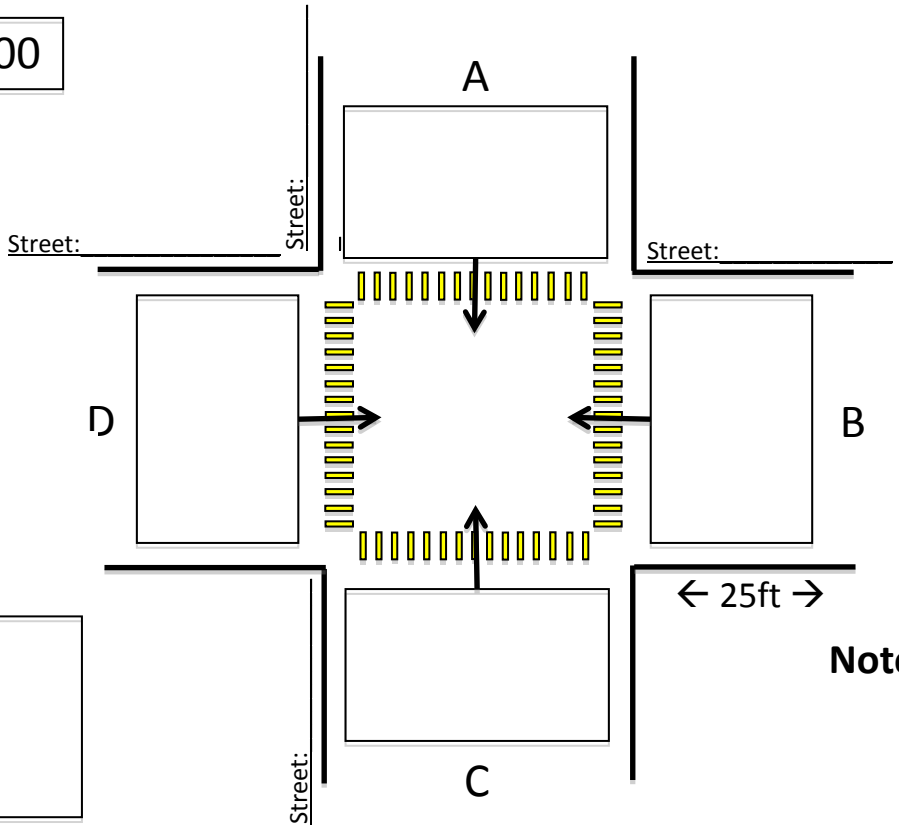
4:30-4:45



Motorized bicycles
Please note direction

Notes:

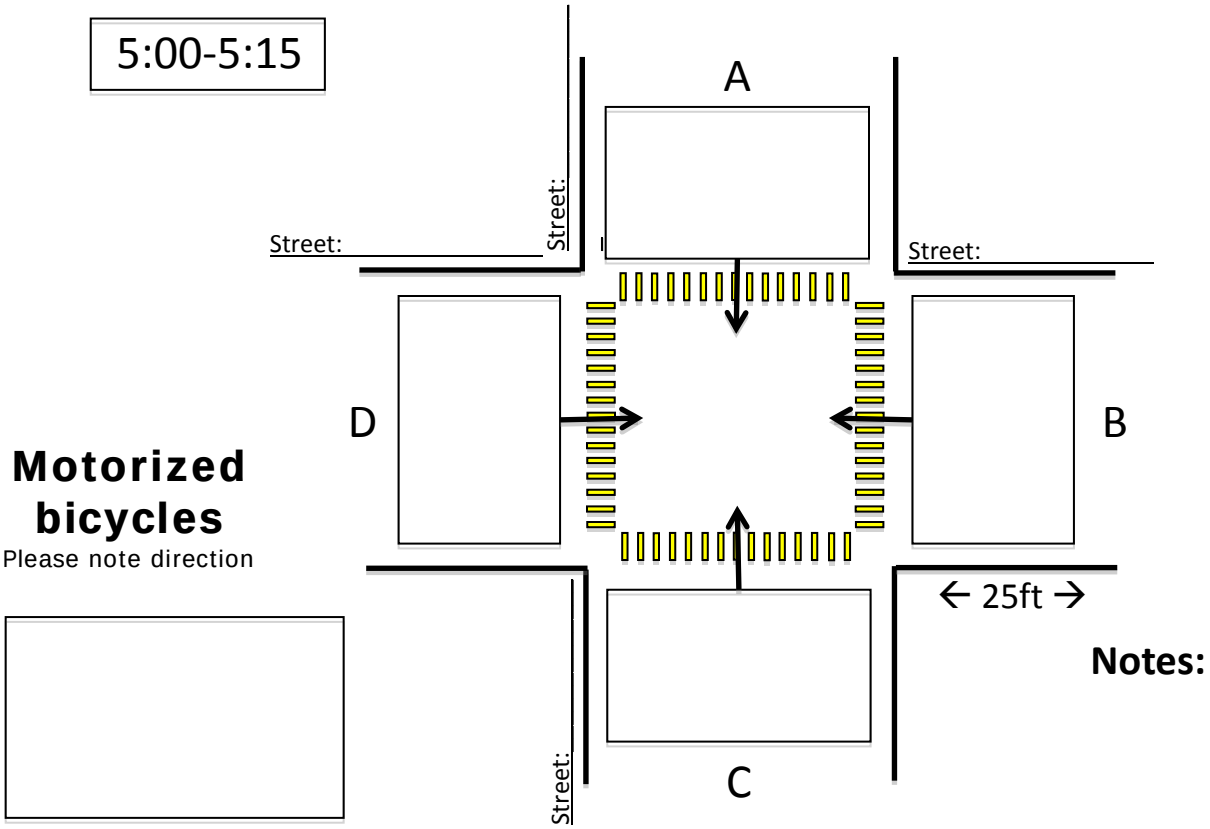
4:45-5:00



Motorized bicycles
Please note direction

Notes:

5:00-5:15

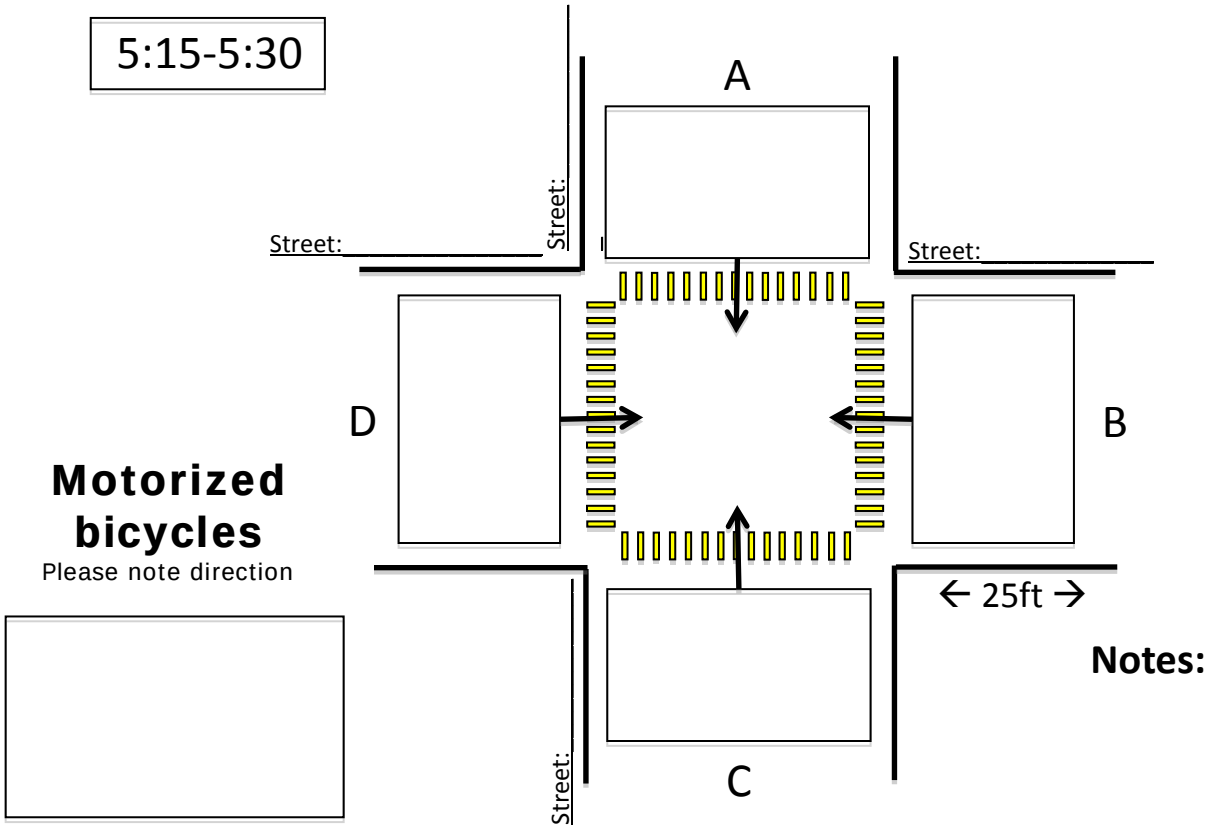


Motorized bicycles

Please note direction

Notes:

5:15-5:30

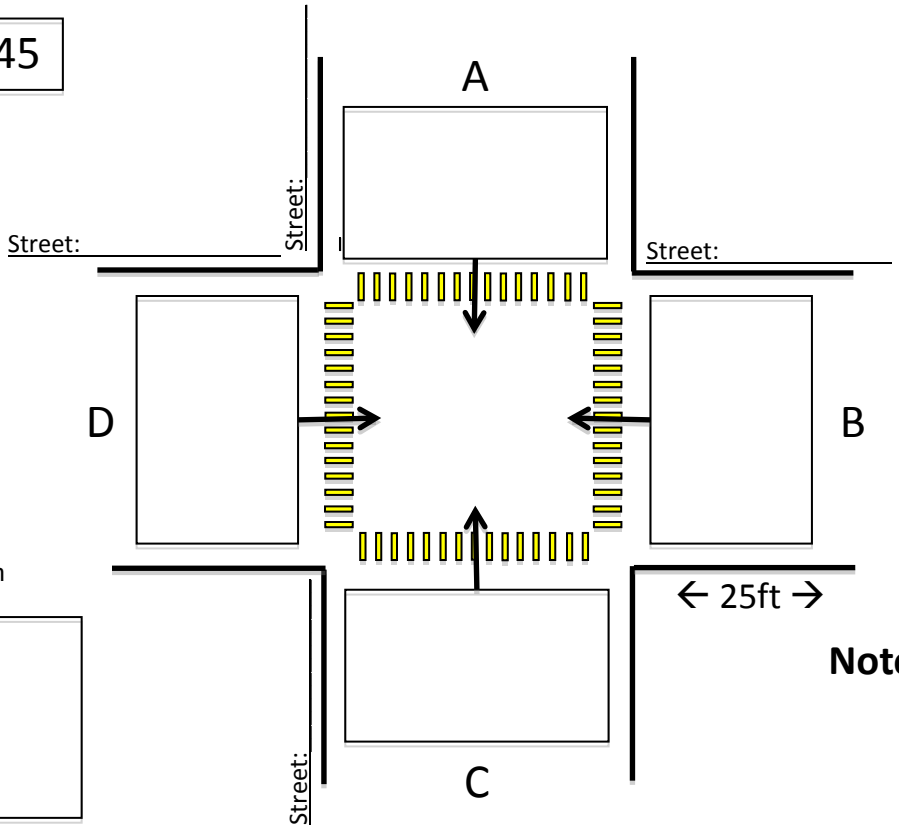


Motorized bicycles

Please note direction

Notes:

5:30-5:45

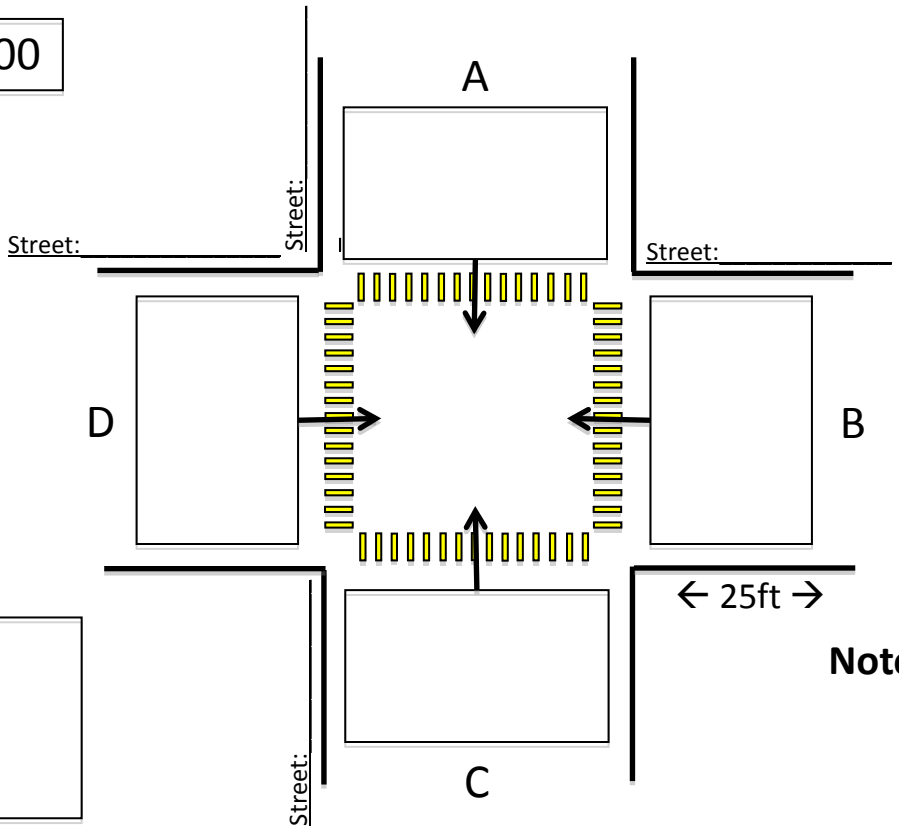


Motorized bicycles

Please note direction

Notes:

5:45-6:00



Motorized bicycles

Please note direction

Notes:

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Appendix D

Bicycle and Pedestrian Count Forms for Mode Split Data

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Bicycle Intersection Count Form

Name:_____ Location:_____

Date: _____ Start Time:_____ End Time:_____

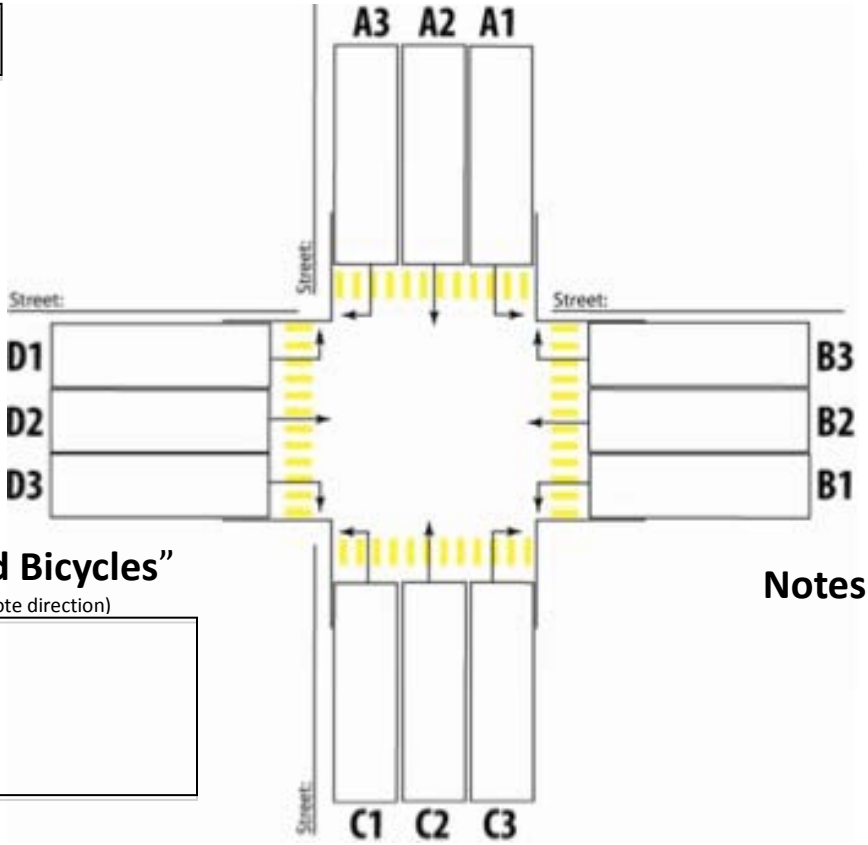
Weather:_____ (sunny, fair, cloudy, rainy, very cold)

-Instructions-

Please fill in your name, count location, date, time period, and weather conditions.
Count all bicyclists crossing through the intersection under the appropriate categories.

- **Count for two hours in 15-minute increments**
- **Use one intersection graphic per 15-minute interval**
- **Mark each intersection graphic with the street names and a landmark to orient the direction of the graphic relative to the real location**
- **Tally based on which direction the bikes are entering the intersection (where they are coming from) and the direction they are going**
- **DO NOT COUNT PEOPLE WALKING THEIR BICYCLES. They are considered pedestrians.**
- **Count the number of people on the bicycle, not the number of bicycles. (kid trailers, child seats, tandems – keep an eye out for these and count appropriately)**
- **Count bicyclists who ride on the sidewalk and motorized bicycles with pedals (electric and gas) on the intersection graphic. Note: Do not count motorcycles or mopeds without pedals**
- **In addition, record motorized bicyclists with pedals in the box "Motorized Bicycles" and remember to note direction (ex. Motorized Bike-D2)**
- **Use the notes section to record any behaviors, events, or actions that might affect count data (ex. car accident, running team passes, weather changes)**

4:00-4:15

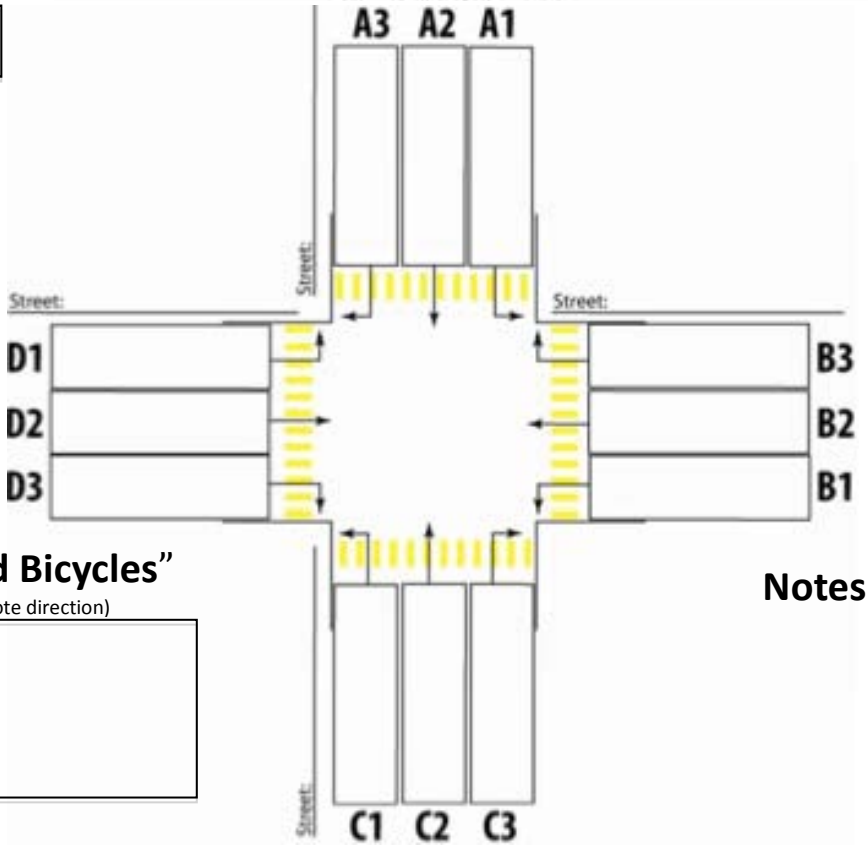


"Motorized Bicycles"

(please note direction)

Notes

4:15-4:30

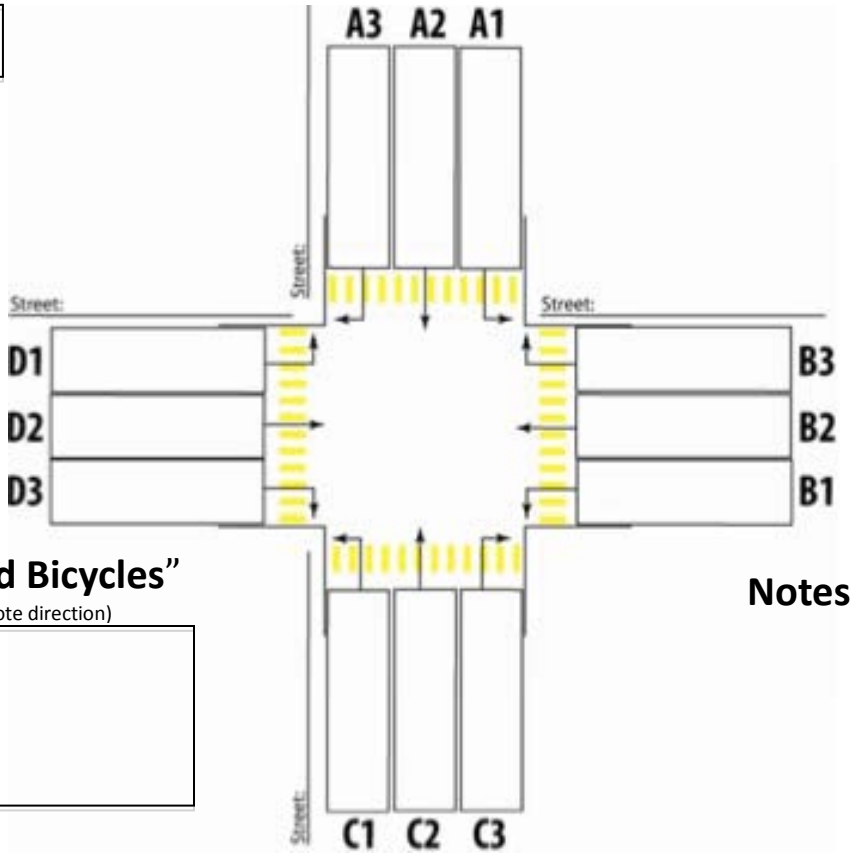


"Motorized Bicycles"

(please note direction)

Notes

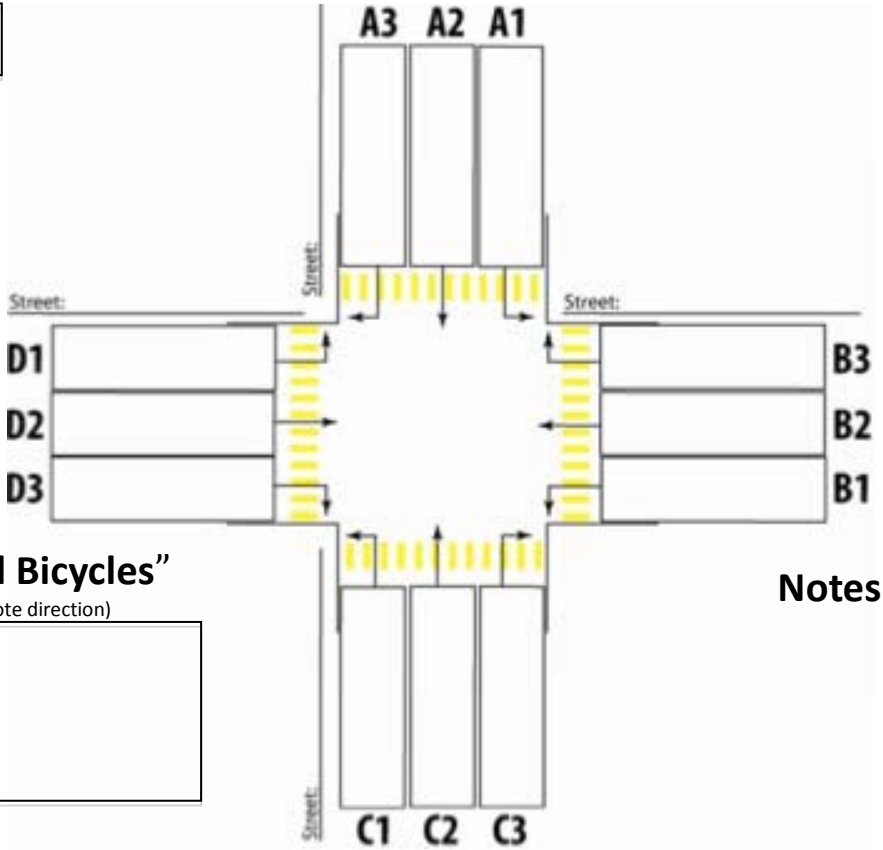
4:30-4:45



"**Motorized Bicycles**"
(please note direction)

Notes

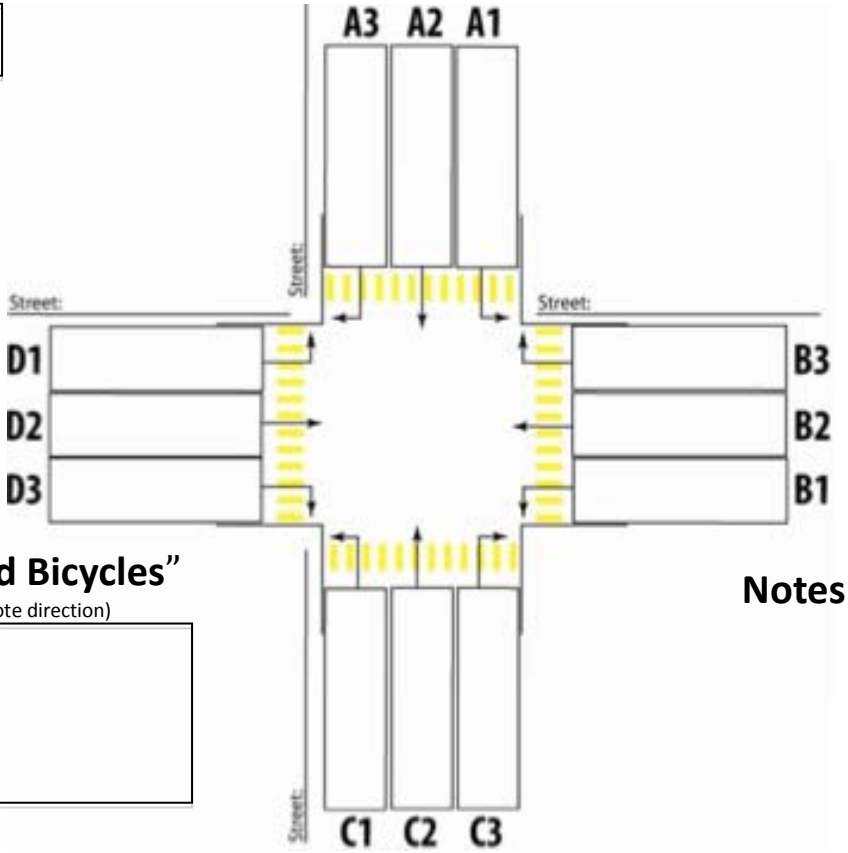
4:45-5:00



"**Motorized Bicycles**"
(please note direction)

Notes:

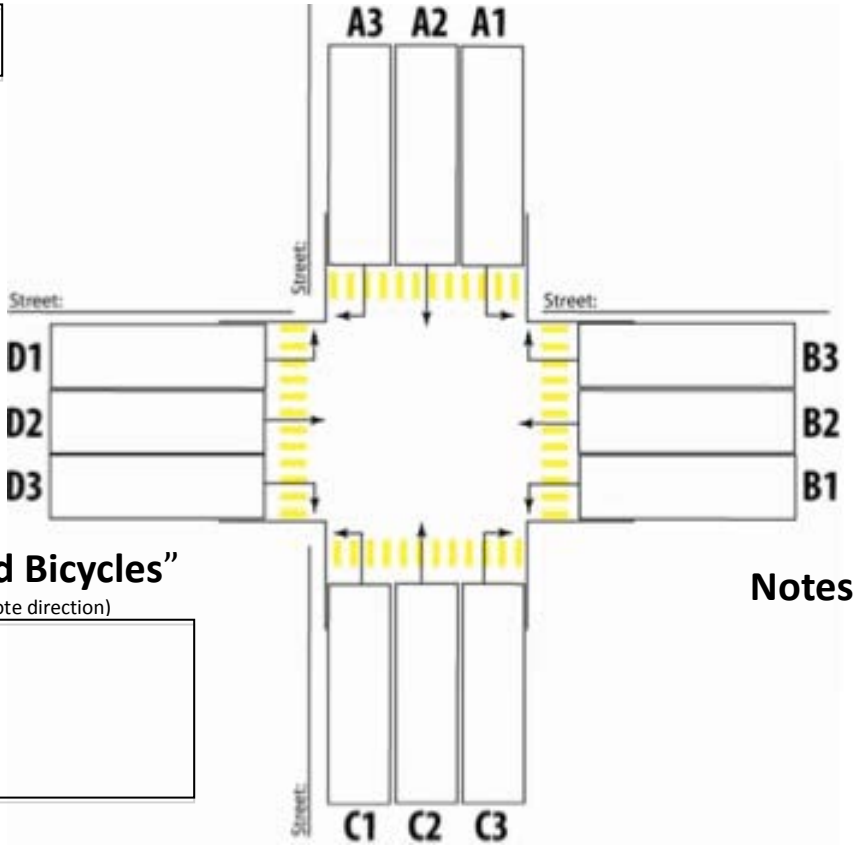
5:00-5:15



"**Motorized Bicycles**"
(please note direction)

Notes:

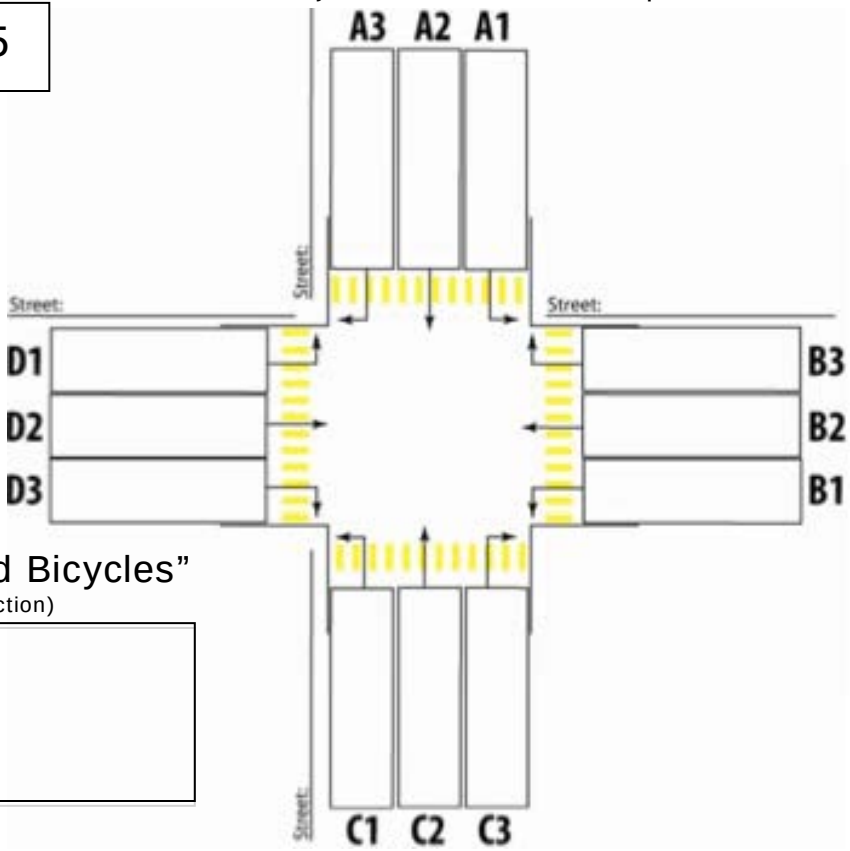
5:15-5:30



"**Motorized Bicycles**"
(please note direction)

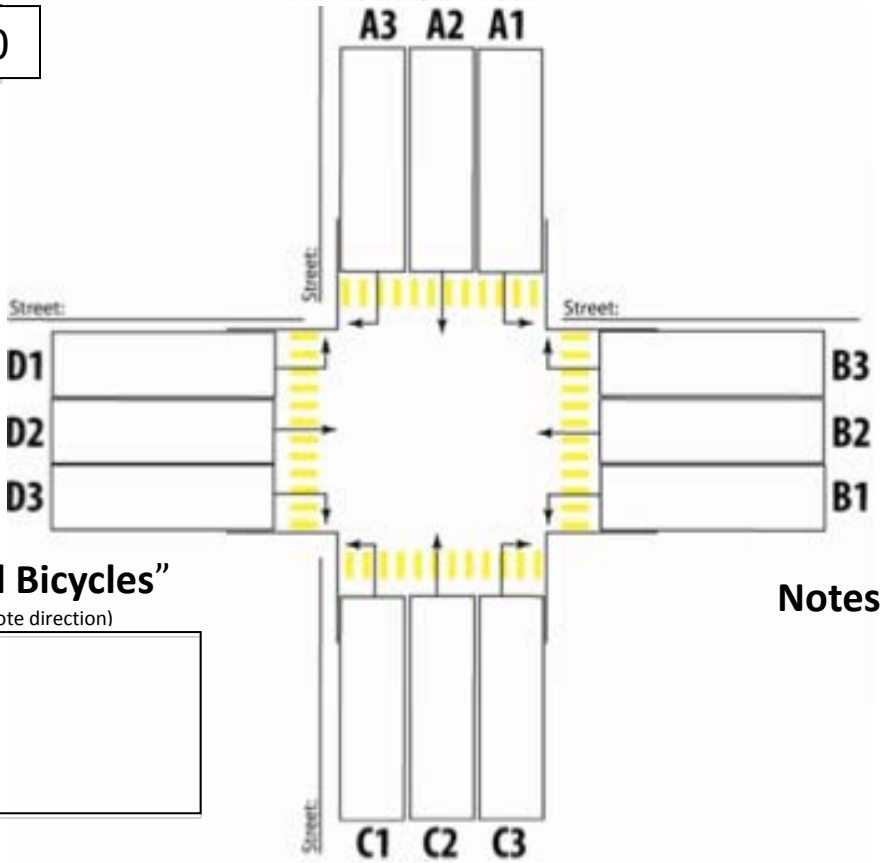
Notes

5:30-5:45



"Motorized Bicycles"
(Please note direction)

5:45–6:00



"**Motorized Bicycles**"
(please note direction)

Notes:

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Pedestrian Intersection Count Form

Name:_____ Location:_____

Date: _____ Start Time:_____ End Time:_____

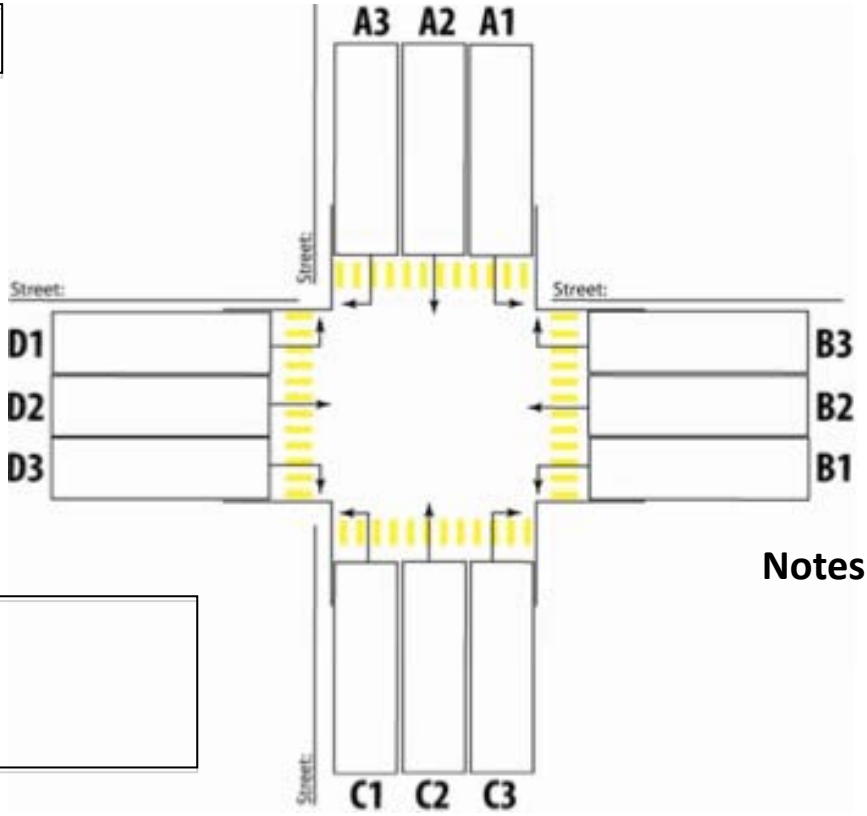
Weather:_____ (sunny, fair, cloudy, rainy, very cold)

-Instructions-

Please fill in your name, count location, date, time period, and weather conditions.
Count all pedestrians crossing through the intersection under the appropriate categories.

- **Count for two hours in 15-minute increments.**
- **Use one intersection graphic per 15-minute interval**
- **Mark each intersection graphic with the street names and a landmark to orient the direction of the graphic relative to the real location**
- **Tally on the intersection graphics based on which direction the pedestrians are approaching the intersection (where they are coming from) and which direction they are going**
- **Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, skateboarders, roller bladders, people walking their bicycles, people on scooters and jaywalkers. PLEASE COUNT ALL OF THESE PEDESTRIANS IN THE TALLY BOX.**
- **In addition, count skateboarders, roller bladders, walking cyclists, and people on scooters in the box labeled "Skateboarder (SK), Roller bladders (RB), Walking Cyclists (WC), Scooters (SC)" by recording the abbreviation followed by direction for which they are entering/exiting the intersection *(ex. SK-D3 = 1 skateboarder traveling along leg D3).* If, for example, there are a group of skaters, record by writing the number in the group followed by direction *(ex. 4 SK-B2 = four skateboarders traveling along leg B2).***
- **Use the notes section to record any behaviors, events, or actions that might affect count data (ex. car accident, running team passes, weather changes)**

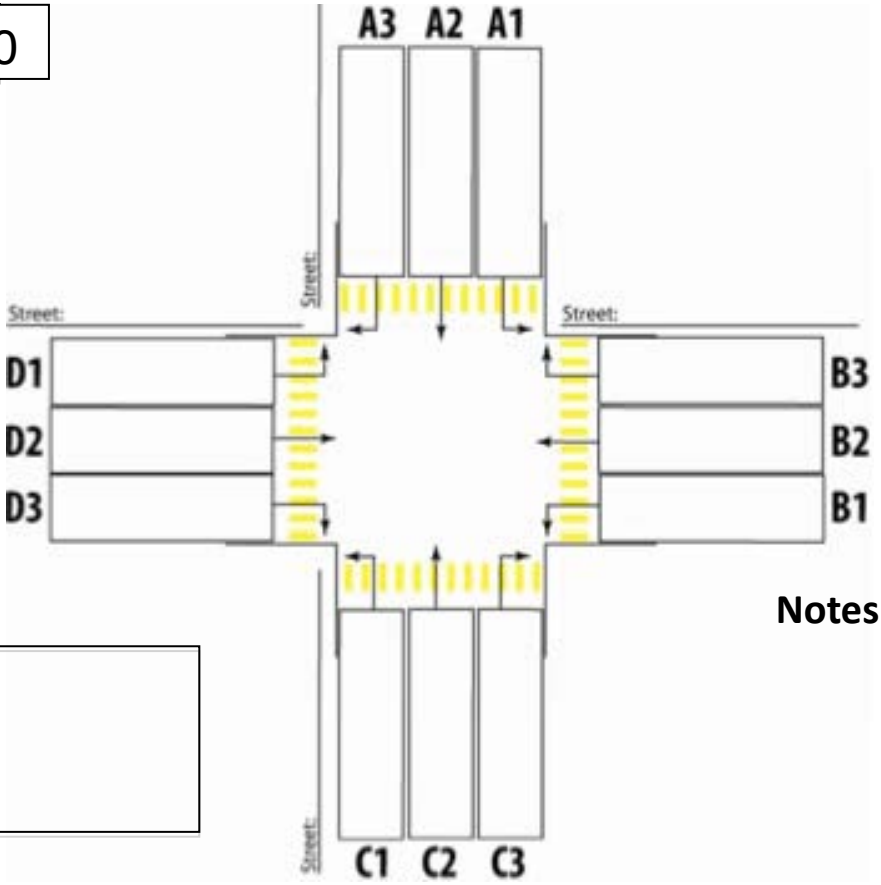
4:00-4:15



Skateboard(SK), Walking Cyclist (WC), Roller Blader *(RB)*, Scooter (SC)
Please note direction

Notes

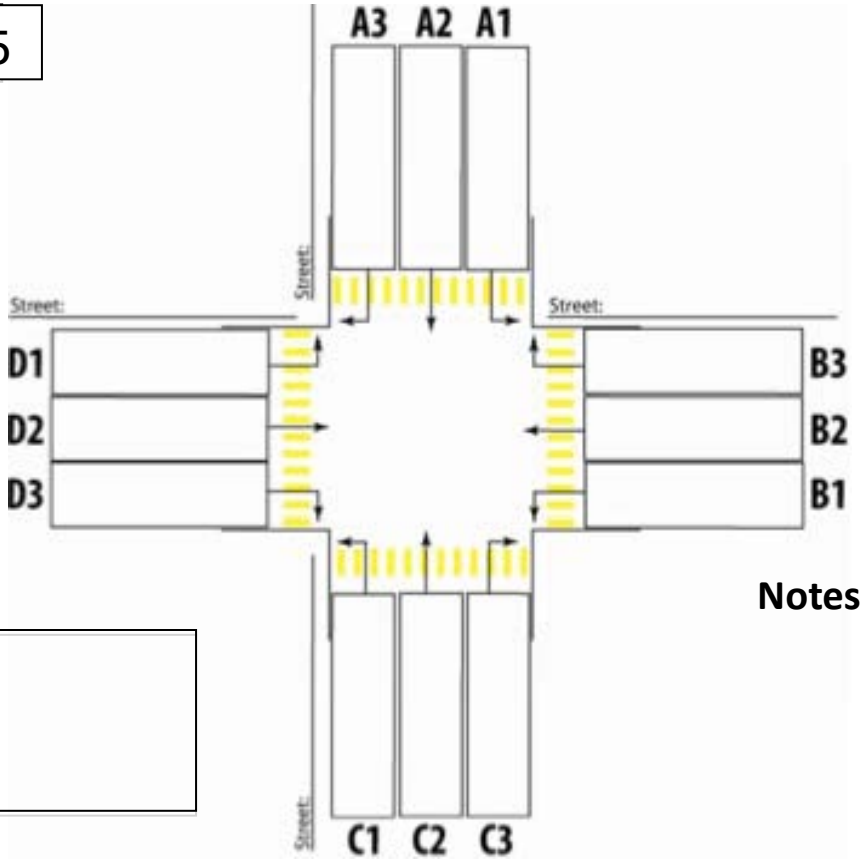
4:15-4:30



Skateboard(SK), Walking Cyclist (WC), Roller Blader *(RB)*, Scooter (SC)
Please note direction

Notes:

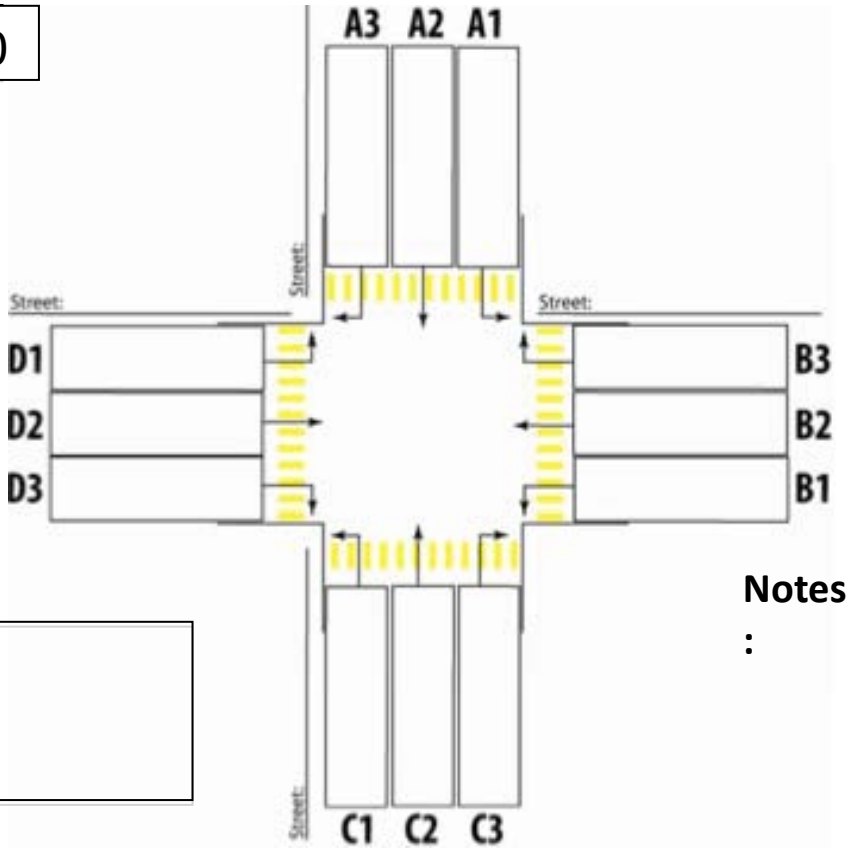
4:30-4:45



Skateboard(SK), Walking Cyclist (WC), Roller Blader *(RB)*, Scooter (SC)
Please note direction

Notes

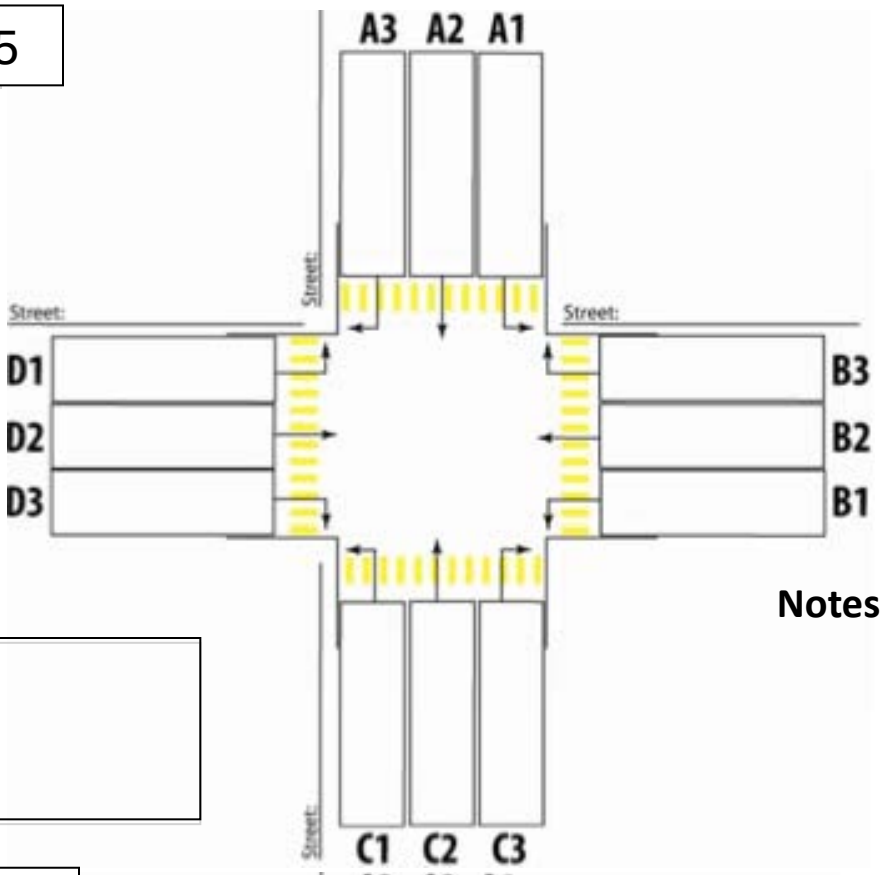
4:45-5:00



Skateboard(SK), Walking Cyclist (WC), Roller Blader *(RB)*, Scooter (SC)
Please note direction

Notes:

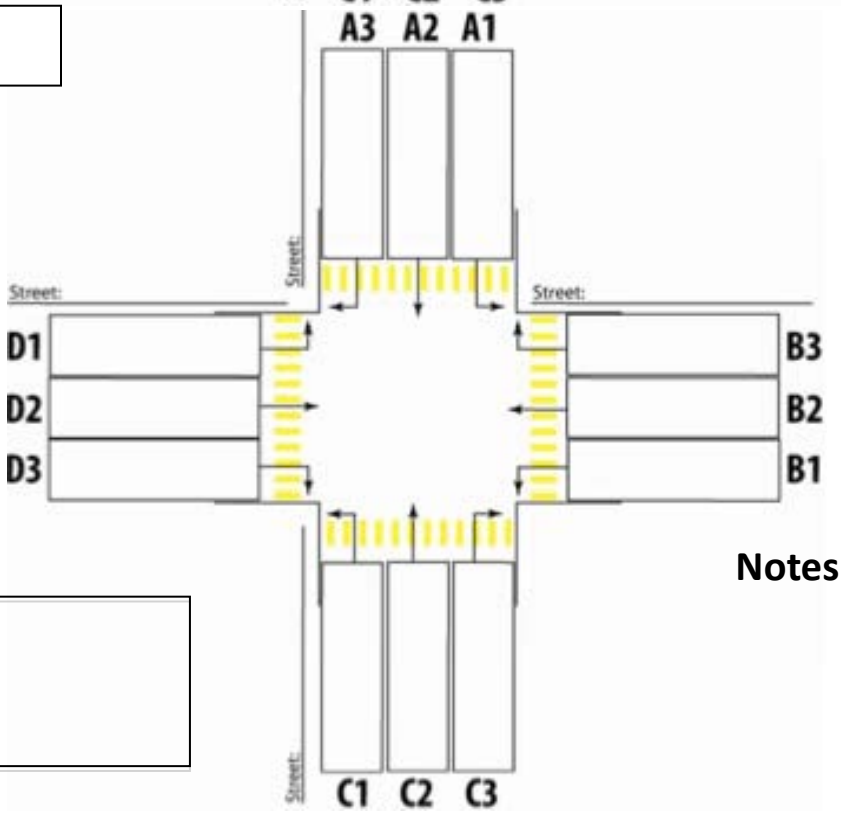
5:00-5:15



Skateboard(SK), Walking Cyclist (WC), Roller Blader *(RB),* Scooter (SC)
Please note direction

Notes:

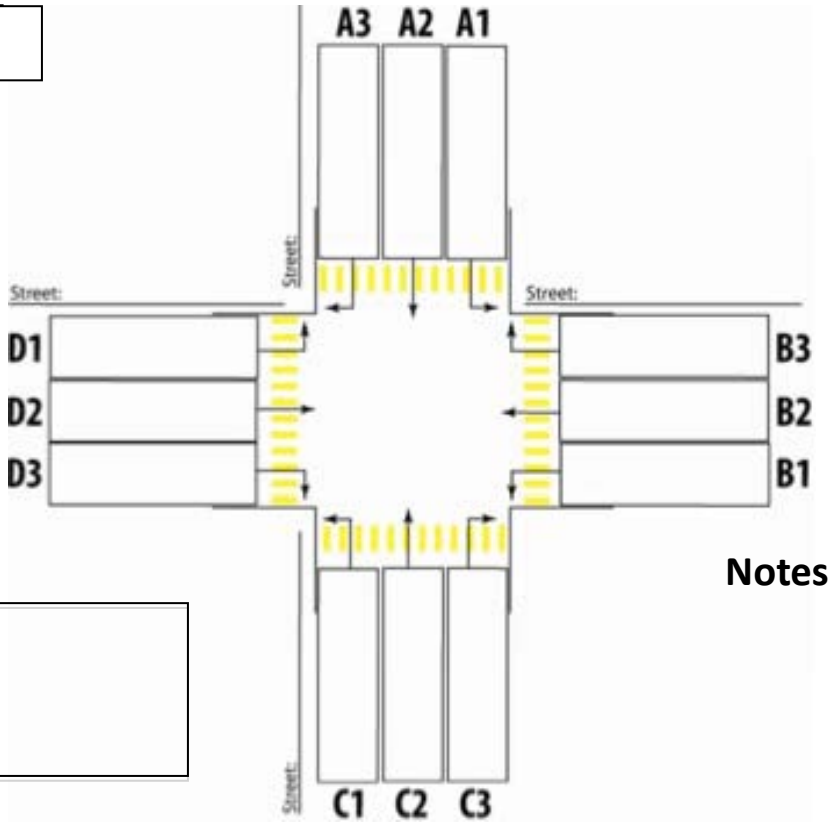
5:15-5:30



Skateboard(SK), Walking Cyclist (WC), Roller Blader *(RB),* Scooter (SC)
Please note direction

Notes

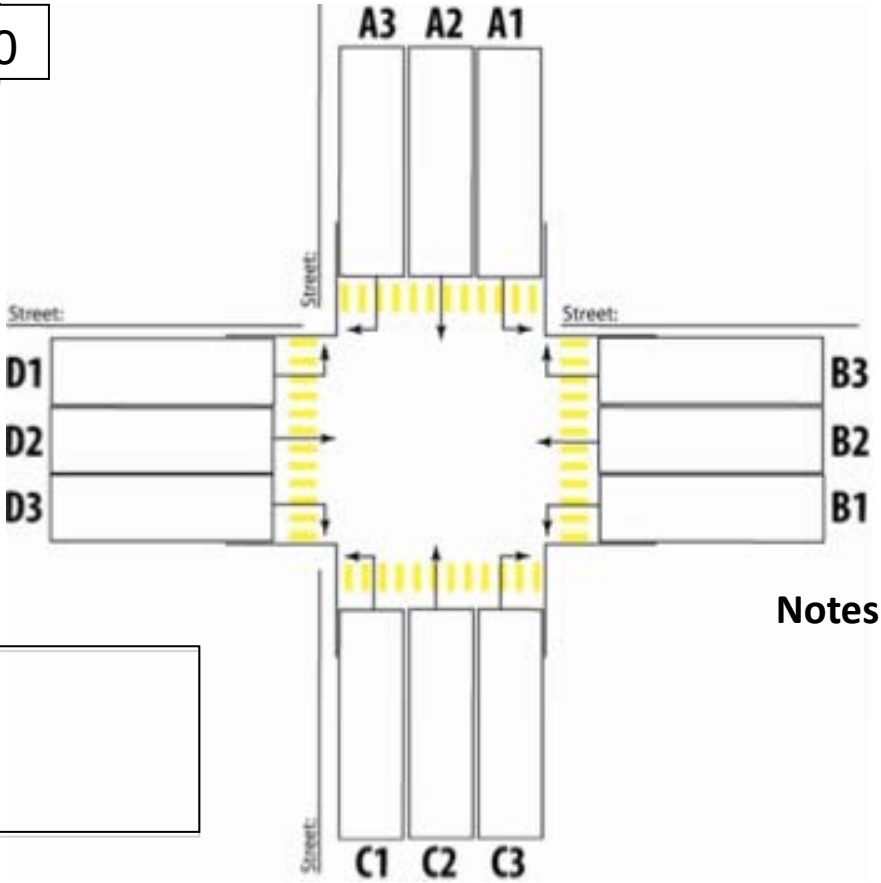
5:30-5:45



Skateboard(SK), Walking Cyclist (WC), Roller Blader *(RB)*, Scooter (SC)
Please note direction

Notes

5:45-6:00



Skateboard(SK), Walking Cyclist (WC), Roller Blader *(RB)*, Scooter (SC)
Please note direction

Notes:

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Appendix E

Table E-1: City of Santa Cruz Bike Counts- Oct. 2007, 4:30-5:30pm

(Counts are the number of bicyclists that are entering the intersection in the specified direction)

Date	Weather	Location (N/S & E/W)	Northbound	Southbound	Eastbound	Westbound	Total Count
10/9/2007	Cloudy/Cool	Pacific Ave. & Cooper	36	33	Not Applicable	Not Applicable	69
10/9/2007	Cloudy/Cool	Front St. & Laurel St.	14	24	41	42	121
10/9/2007	Cloudy/Cool	Seabright Ave. & Murray St.	10	19	29	40	98
10/9/2007	Cloudy/Cool	Seabright Ave. & Broadway	9	8	15	8	40
10/11/2007	Clear	Bay St. & King St.	11	70	14	16	111
10/11/2007	Clear	Riverway Path & Pedestrian Bridge	20	37	8	27	92
10/11/2007	Clear	Ocean St. & Water St.	11	8	44	32	95
10/11/2007	Clear	Branciforte & Soquel Ave.	15	17	31	10	73
10/16/2007	Clear/ Cool	Hagemann & Soquel Ave.	0	7	42	25	74
10/16/2007	Clear/ Cool	Woodrow & Delaware	19	20	30	8	77
10/18/2007	Clear/ Cool	California St. & Laurel St.	38	18	35	9	100

Non-typical Intersections

			Northbound (Storey Towards High St.)	Eastbound (High St. towards Storey St.)	Eastbound (High St. contraflow)	Westbound (High St. toward UCSC)	Total Count
10/9/2007	Cloudy/Cool	Storey St & High St.	3	12	26	12	53
			Northbound Mission St.	Southbound Mission St.	Younglove (northbound toward Mission)	Almar Ave. (northbound toward Mission)	Total Count
10/9/2007	Cloudy/Cool	Mission St. / Almar Ave. / Younglove Ave.	12	18	4	3	37
			Eastbound (toward Boardwalk in street)	Eastbound (toward Boardwalk in bikeway)	Westbound (toward Wharf in street)	Westbound (toward Wharf in bikeway)	Total Count
10/11/2007	Clear	Beach St. (near intersection with Main St.)	3	42	2	19	66
			Northbound West Cliff Dr. (In Street towards Cowells)	Southbound West Cliff Dr. (In Street towards Natural Bridges)	Northbound West Cliff Dr. (Path towards Cowells)	Southbound West Cliff (Path towards Natural Bridges)	Total Count
10/18/2007	Clear/ Cool	West Cliff Drive & West Cliff Path	14	Not Available	52	Not Available	66

Table E-2: City of Santa Cruz Pedestrian Counts – Oct. 2007, 4:30-5:30pm

(Counts are the number of pedestrians that are entering the intersection in the specified direction)

Date	Weather	Location (N/S & E/W)	Northbound	Southbound	Eastbound	Westbound	Total Count
10/9/2007	Cloudy/Cool	Pacific Ave. & Cooper	634	577	NA	NA	1211
10/9/2007	Cloudy/Cool	Front St. & Laurel St.	13	51	36	34	134
10/9/2007	Cloudy/Cool	Seabright Ave. & Murray St.	29	30	4	9	72
10/9/2007	Cloudy/Cool	Seabright Ave. & Broadway	16	11	1	7	35
10/11/2007	Clear	Bay St. & King St.	18	8	7	9	42
10/11/2007	Clear	Riverway Path & Pedestrian Bridge	30	12	54	68	164
10/11/2007	Clear	Ocean St. & Water St.	19	16	28	15	78
10/11/2007	Clear	Branciforte & Soquel Ave.	12	16	38	32	98
10/16/2007	Clear/ Cool	Hagemann & Soquel Ave.	2	10	12	9	33
10/16/2007	Clear/ Cool	Woodrow & Delaware	8	14	10	3	35
10/18/2007	Clear/ Cool	California St. & Laurel St.	12	12	10	18	52

Non-typical intersections

			Northbound (Storey Towards High St.)	Eastbound (High St. towards Storey St.)	Westbound (High St. toward UCSC)		Total Count
10/9/2007		High St. & Storey St.	5	7	9		21
			Northbound Mission St.	Southbound Mission St.	Younglove (northbound toward Mission)	Almar Ave. (northbound toward Mission)	Total Count
10/9/2007		Mission St. / Almar Ave. / Younglove Ave.	35	18	7	5	65
			Eastbound (toward Boardwalk)	Westbound (toward Wharf)	Eastbound (on sidewalk)	Westbound (on sidewalk)	Total Count
10/11/2007	Clear	Beach St. (near intesection with Main St.)	90	115	13	3	221
			West Cliff Path (towards Cowells)	West Cliff Path (towards Natural Bridges)			Total Count
10/18/2007		West Cliff Drive & West Cliff Path	117	137			254

Table E-3: City of Santa Cruz Mode Split Counts – October, 2007, Tues/Thurs 4:30-5:30 pm

STREET	SEGMENT	WEATHER	DIRECTION	TOTAL TRAFFIC	MOTORS	%	BICYCLES	%	PEDS	%
ALMAR	RANKIN/ MISSION	CLEAR	NB	188	180	95	3	2	5	3
BAY	KING/ ANITA	CLEAR	NB	449	420	94	11	2	18	4
BEACH	WESTBROOK/ CLIFF	CLOUDY	EB	359	211	59	58	16	90	25
BROADWAY	SEABRIGHT/ CAYUGA	CLEAR	EB	624	608	97	15	3	1	0
CALIFORNIA	LAUREL/ RIGG	CLEAR	SB	150	120	80	18	12	12	8
DELAWARE	WOODROW/ ALGEA	CLOUDY	EB	262	222	85	30	11	10	4
FRONT	CATHCART/ LAUREL	CLOUDY	SB	487	412	85	24	5	51	10
HIGH	STOREY/ LAURENT	CLEAR	EB	452	419	92	26	6	7	2
KING	BAY/ LAURENT	CLEAR	WB	320	295	92	16	5	9	3
LAUREL	WALTI/ CALIFORNIA	CLEAR	WB	581	554	95	9	2	18	3
LAUREL	FRONT/ SAN LORENZO	CLEAR	WB	518	442	85	42	8	34	7
MURRAY	SEABRIGHT/ HARBOR	CLOUDY	WB	543	494	91	40	7	9	2
N. B40	MINNIE/ SOQUEL	CLEAR	SB	453	420	93	17	4	16	3
OCEAN	WATER/ LEONARD	CLEAR	NB	1086	1056	97	11	1	19	2
PACIFIC	CHURCH/ WALNUT	CLOUDY	NB	864	194	23	36	4	634	73
RIVER (SOUTH)	RIVER/ SOQUEL	CLOUDY	SB	469	420	89	37	8	12	3
SEABRIGHT	BROADWAY/ EFFEY	CLEAR	SB	302	283	93	8	3	11	4
SEABRIGHT	LOGAN/ WATSON	CLOUDY	SB	305	256	84	19	6	30	10
SOQUEL	BRANCIFORTE/ CALEDONIA	CLEAR	WB	580	538	93	10	2	32	5
W. CLIFF	PELTON/ LIGHTHOUSE	CLEAR	NB	483	300	62	66	14	117	24
WATER	OCEAN/ RIVER	CLEAR	EB	1476	1404	95	44	3	28	2
WOODROW	DELAWARE/ PLATEAU	CLOUDY	NB	207	180	87	19	9	8	4
YOUNGLOVE	SEASIDE/ MISSION	CLEAR	NB	63	52	83	4	6	7	11
TOTAL				**11221**	**9480**	**84.5%**	**563**	**5.0%**	**1178**	**10.5%**

Table E-4: City of Santa Cruz Mode Split Counts – October, 2002, Tues/Thurs 4:30-5:30 pm

STREET	SEGMENT	WEATHER	DIRECTION	TOTAL TRAFFIC	MOTORS	%	BICYCLES	%	PEDS	%
ALMAR	RANKIN/ MISSION	CLEAR	NB	316	305	96	3	1	8	3
BAY	KING/ ANITA	CLEAR	NB	468	425	91	12	3	31	6
BEACH	WESTBROOK/ CLIFF	CLOUDY	EB	388	322	83	35	9	31	8
BROADWAY	SEABRIGHT/ CAYUGA	CLEAR	EB	546	535	98	7	1	4	1
CALIFORNIA	LAUREL/ RIGG	CLEAR	SB	158	133	84	15	10	10	6
DELAWARE	WOODROW/ ALGEA	CLOUDY	EB	194	177	91	14	7	3	2
FRONT	CATHCART/ LAUREL	CLOUDY	SB	600	555	93	15	3	30	5
HIGH	STOREY/ LAURENT	CLEAR	EB	458	407	89	37	8	14	3
KING	BAY/ LAURENT	CLEAR	WB	346	317	92	22	6	7	2
LAUREL	WALTI/ CALIFORNIA	CLEAR	WB	695	677	97	11	2	7	1
LAUREL	FRONT/ SAN LORENZO	CLEAR	WB	798	736	92	33	4	29	4
MURRAY	SEABRIGHT/ HARBOR	CLOUDY	WB	682	636	93	38	6	8	1
N. B40	MINNIE/ SOQUEL	CLEAR	SB	340	317	93	10	3	13	4
OCEAN	WATER/ LEONARD	CLEAR	NB	759	720	95	11	1	28	4
PACIFIC	CHURCH/ WALNUT	CLOUDY	NB	674	178	26	28	4	468	70
RIVER (SOUTH)	RIVER/ SOQUEL	CLOUDY	SB	470	415	88	31	7	24	5
SEABRIGHT	BROADWAY/ EFFEY	CLEAR	SB	367	341	92	20	6	6	2
SEABRIGHT	LOGAN/ WATSON	CLOUDY	SB	429	374	87	21	5	34	8
SOQUEL	BRANCIFORTE/ CALEDONIA	CLEAR	WB	266	205	77	23	9	38	14
W. CLIFF	PELTON/ LIGHTHOUSE	CLEAR	NB	406	310	76	35	9	61	15
WATER	OCEAN/ RIVER	CLEAR	EB	1281	1178	92	56	4	47	4
WOODROW	DELAWARE/ PLATEAU	CLOUDY	NB	167	144	86	12	7	11	7
YOUNGLOVE	SEASIDE/ MISSION	CLEAR	NB	93	75	81	6	6	12	13
TOTAL				**10901**	**9482**	**87%**	**495**	**4.5%**	**924**	**8.5%**
Counts removed for 2002/2007 comparison:										
CAPITOLA	SOQUEL/ CITY LIMIT	CLEAR	NB	562	551	98	8	1	3	1
CHURCH	PACIFIC/ CEDAR	CLOUDY	EB	346	108	31	10	3	228	66
SOQUEL	CAPITOLA/ CARL	CLEAR	WB	596	575	96	16	3	5	1

Appendix F

Figure F-1: UCSC Bike Ridership Counts at Main and West Entrances

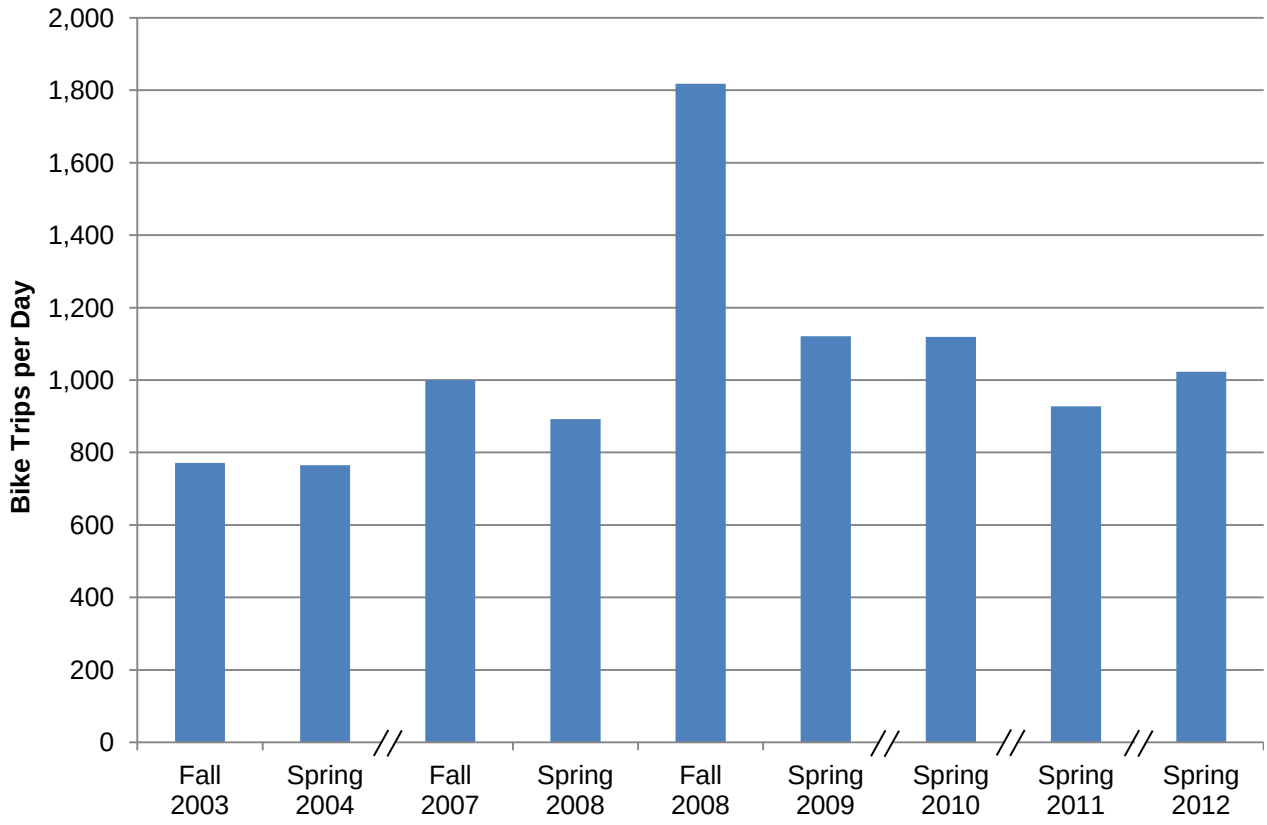

Table F-1: UCSC Bicycle Count Data at Main and West Entrances*

Time	Fall 2003	Spring 2004	Fall 2007	Spring 2008	Fall 2008	Spring 2009	*Spring 2009 (McLaughlin)*	Spring 2010	Spring 2011	Spring 2012
7:00-7:15am	7	10			6	10	*0*	6	7	3
7:15-7:30am	2	11	6	8	25	7	*2*	17	13	8
7:30-7:45am	11	11	2	10	40	15	*1*	20	24	8
7:45-8:00am	18	11	10	9	40	21	*11*	16	12	22
8:00-8:15am	10	4	11	11	44	25	*3*	7	9	21
8:15-8:30am	19	10	26	13	36	26	*9*	20	21	10
8:30-8:45am	17	19	21	14	21	15	*6*	10	18	15
8:45-9:00am	21	16	23	16	26	27	*5*	17	21	23
9:00-9:15am	27	16	16		33	28	*2*	20	21	22
9:15-9:30am	11	17			34	22	*6*	17	27	22
9:30-9:45am	19	18	17	25	50	21	*16*	17	15	11
9:45-10:00am	8	11	26	19	59	16	*22*	21	12	13
10:00-10:15am	13	20	10	9	20	15	*14*	14	11	5

Time	Fall 2003	Spring 2004	Fall 2007	Spring 2008	Fall 2008	Spring 2009	***Spring 2009 (McLaughlin)***	Spring 2010	Spring 2011	Spring 2012
10:15-10:30am	11	17	7	4	25	15	*7*	12	15	9
10:30-10:45am	18	28	10	15	19	15	*9*	4	21	11
10:45-11:00am	22	14	11	10	10	27	*8*	7	13	15
11:00-11:15am	9	10	15	9	18	11	*14*	9	15	16
11:15-11:30am	11	9	13	14	17	22	*5*	14	10	9
11:30-11:45am	12	9	33	15	57	25	*16*	23	9	12
11:45-12:00pm	11	11	29	21	49	33	*23*	42	20	15
12:00-12:15pm	17	21	18	19	31	19	*5*	21	24	20
12:15-12:30pm	19	21	44	13	31	18	*10*	14	17	29
12:30-12:45pm	6	17	17	17	22	22	*9*	11	22	13
12:45-1:00pm	6	13	17	17	19	23	*6*	18	19	12
1:00-1:15pm	15	20	20	18	29	17	*8*	15	11	15
1:15-1:30pm	11	12	19	17	39	14	*16*	24	10	20
1:30-1:45pm	13	14			65	17	*19*	31	29	20
1:45-2:00pm	22	22			41	40	*37*	32	24	31
2:00-2:15pm	13	16			41	25	*20*	43	12	21
2:15-2:30pm	10	10			24	16	*3*	23	15	15
2:30-2:45pm	13	12			24	20	*9*	18	13	25
2:45-3:00pm	17	20			31	23	*7*	16	27	19
3:00-3:15pm	13	20			16	32	*7*	16	20	22
3:15-3:30pm	25	33			46	15	*10*	42	43	48
3:30-3:45pm	24	21			51	29	*8*	33	19	21
3:45-4:00pm	37	19			94	35	*21*	40	20	22
4:00-4:15pm	11	22	40	32	80	32	*3*	45	28	36
4:15-4:30pm	24	15	26	18	57	21	*13*	43	42	41
4:30-4:45pm	22	22	33	36	53	28	*8*	35	26	55
4:45-5:00pm	25	31	34	28	57	35	*5*	51	30	51
5:00-5:15pm	50	36	29	50	86	50	*5*	53	37	60
5:15-5:30pm	44	33	34	34	93	35	*8*	56	47	62
5:30-5:45pm	33	25	44	37	78	69	*10*	61	49	50
5:45-6:00pm	24	18	54	66	81	90	*18*	65	30	45
6:00-6:15pm										39
6:15-6:30pm										43
6:30-6:45pm										48

*****Spring 2009 counts on McLaughlin Dr (near College Ten Rd) were taken at a location within the campus and not at the Main or West entrances.