



Chapter 4: Multimodal Turning Movement Counts



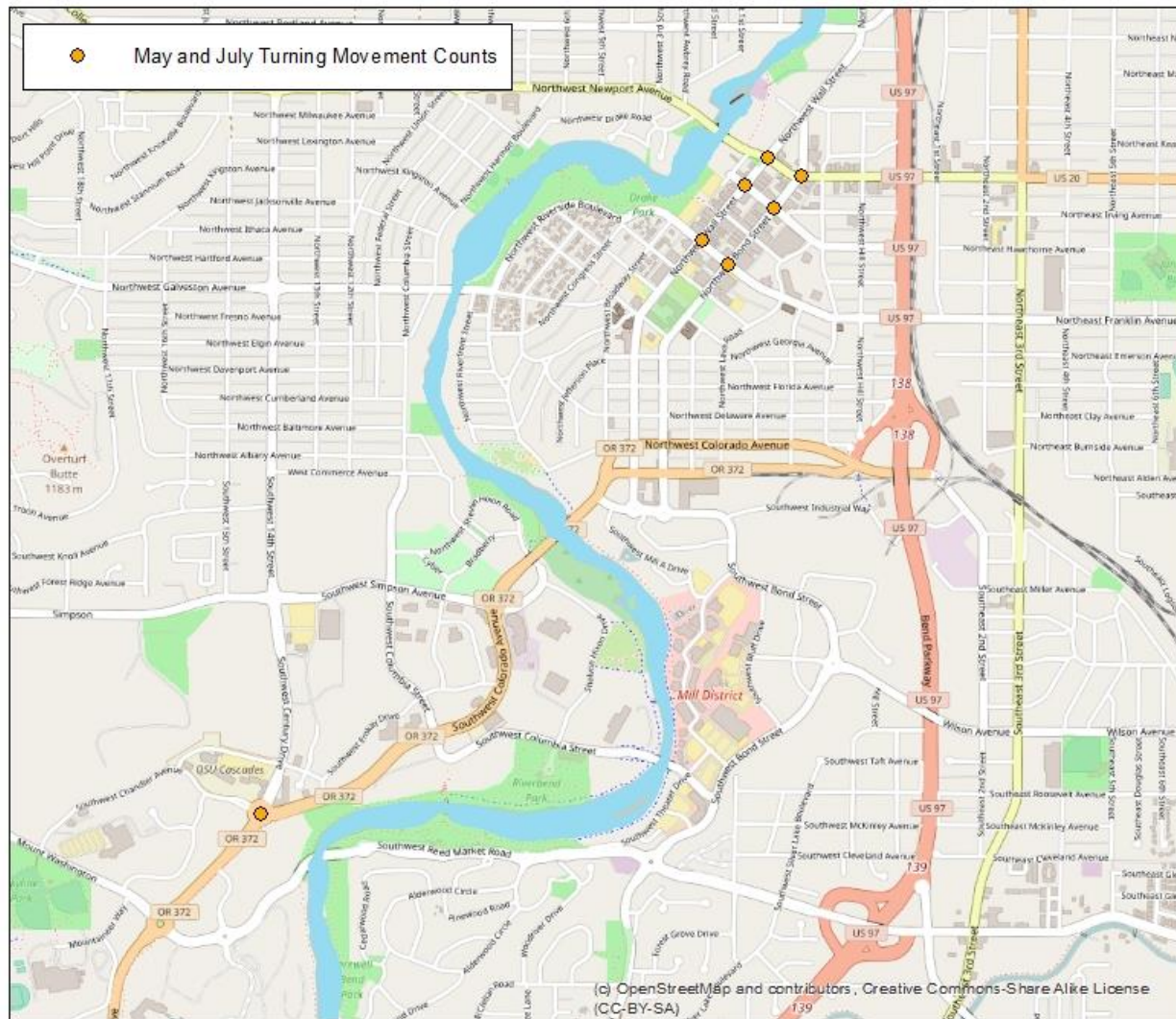
MULTIMODAL TURNING MOVEMENT COUNTS

Counts were collected at several intersections in May and June to assess multimodal volumes. The counts include:

- Vehicle turning movement counts
- Bicycle turning movement counts
- Pedestrians using crosswalks
- Heavy vehicle percentages by movement

Multimodal turning movement counts can be used for a variety of purposes, including assessing vehicle operations for each movement at an intersection, quantifying pedestrian and bicycle demand, and quantifying exposure to more fully assess crash data. Locations where counts were collected are shown in Exhibit X. These counts are collected by recording and reviewing video data.

Exhibit 4-1. Multimodal Turning Movement Count Locations



The turning movement counts collected are summarized below and compared by location for each peak period. Exhibit 4-2 shows the total entering vehicles, bikes and pedestrians at each location during the morning peak hour.

Exhibit 4-2. Morning Peak Hour Total Entering Volumes by Location

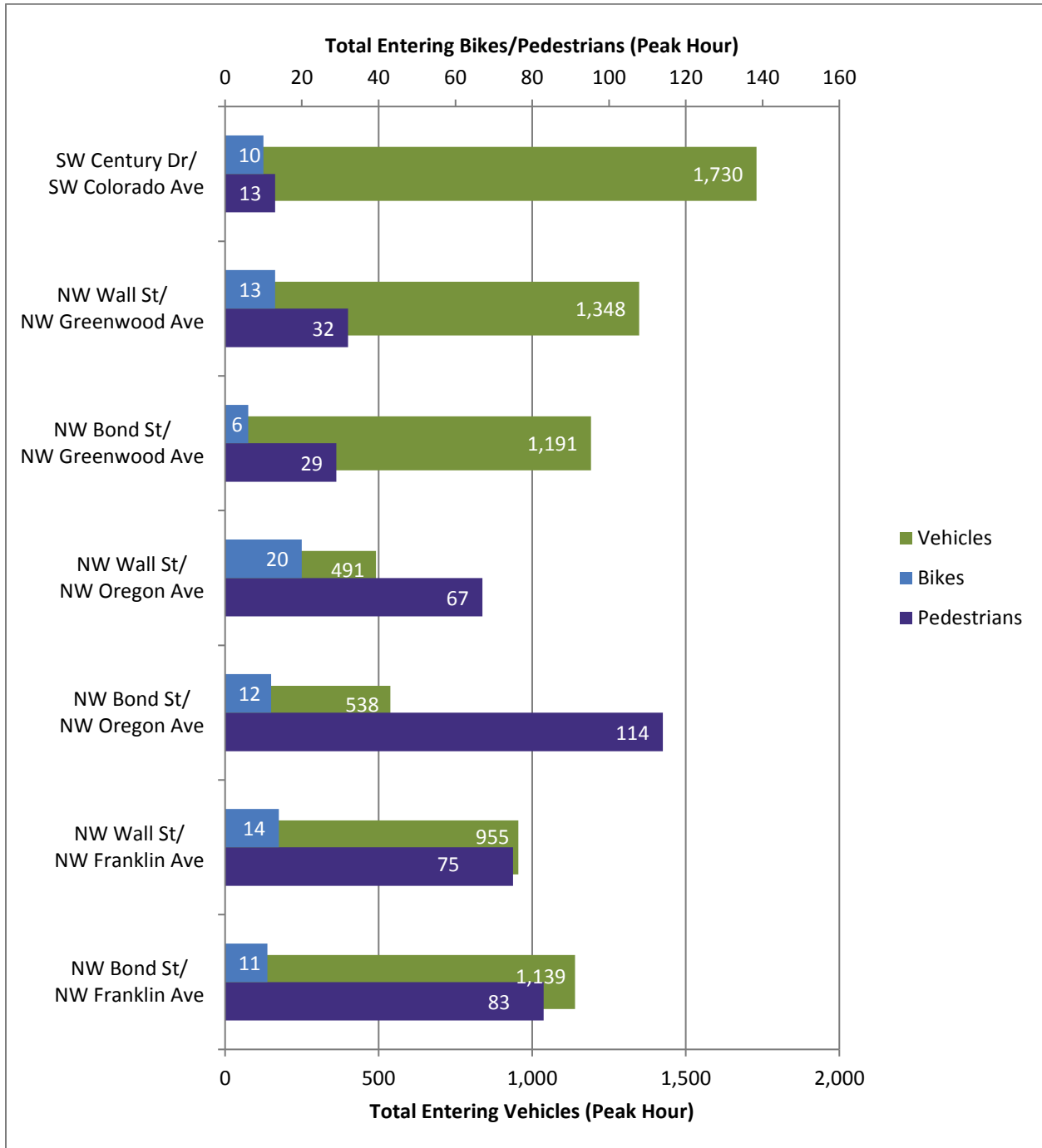


Exhibit 4-3 shows the total entering vehicles, bikes and pedestrians at each location during the midday peak hour. Note that the scales have been adjusted to account for the significantly higher volumes observed at most locations during the midday peak period.

Exhibit 4-3. Midday Peak Hour Total Entering Volumes by Location

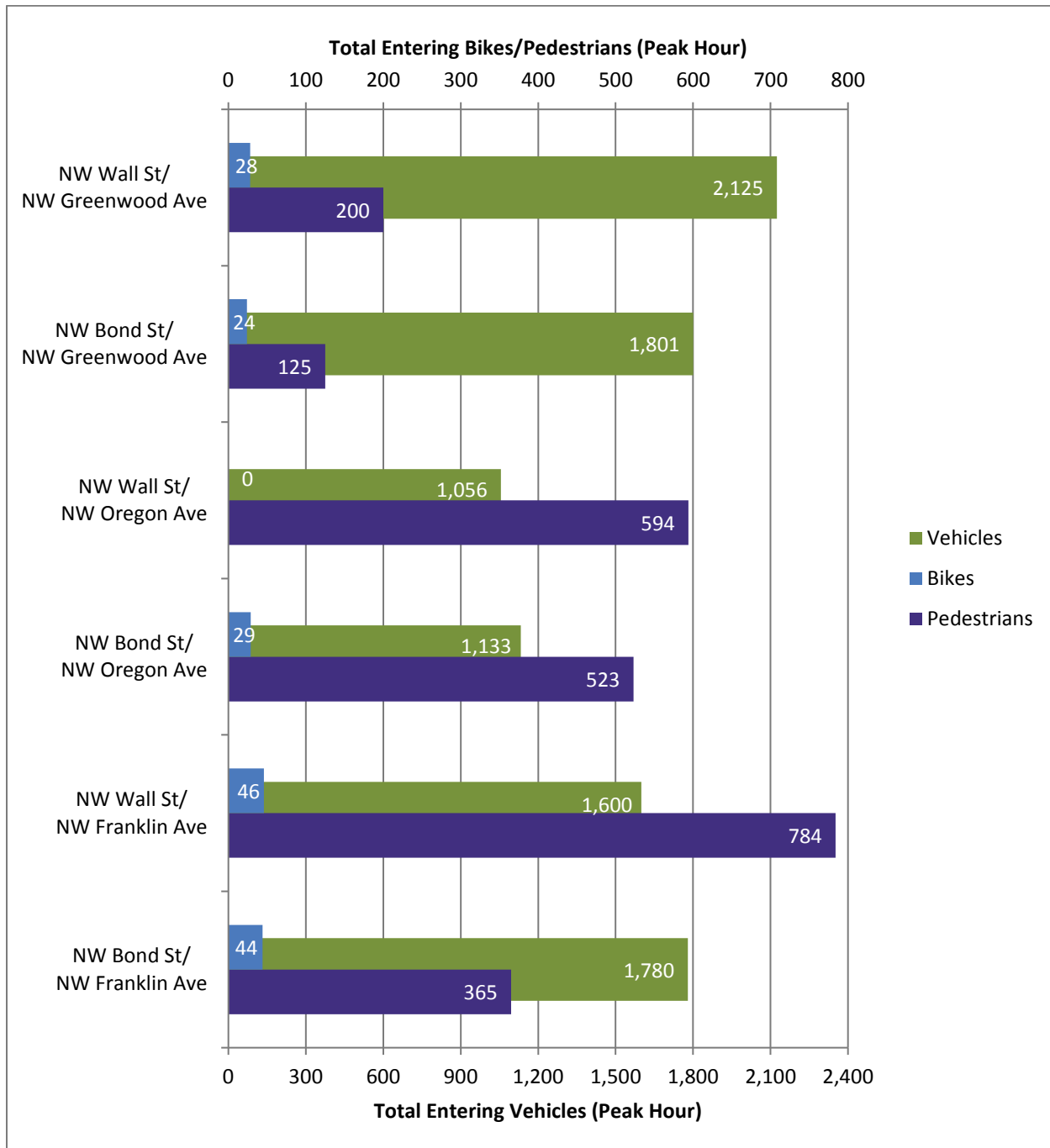
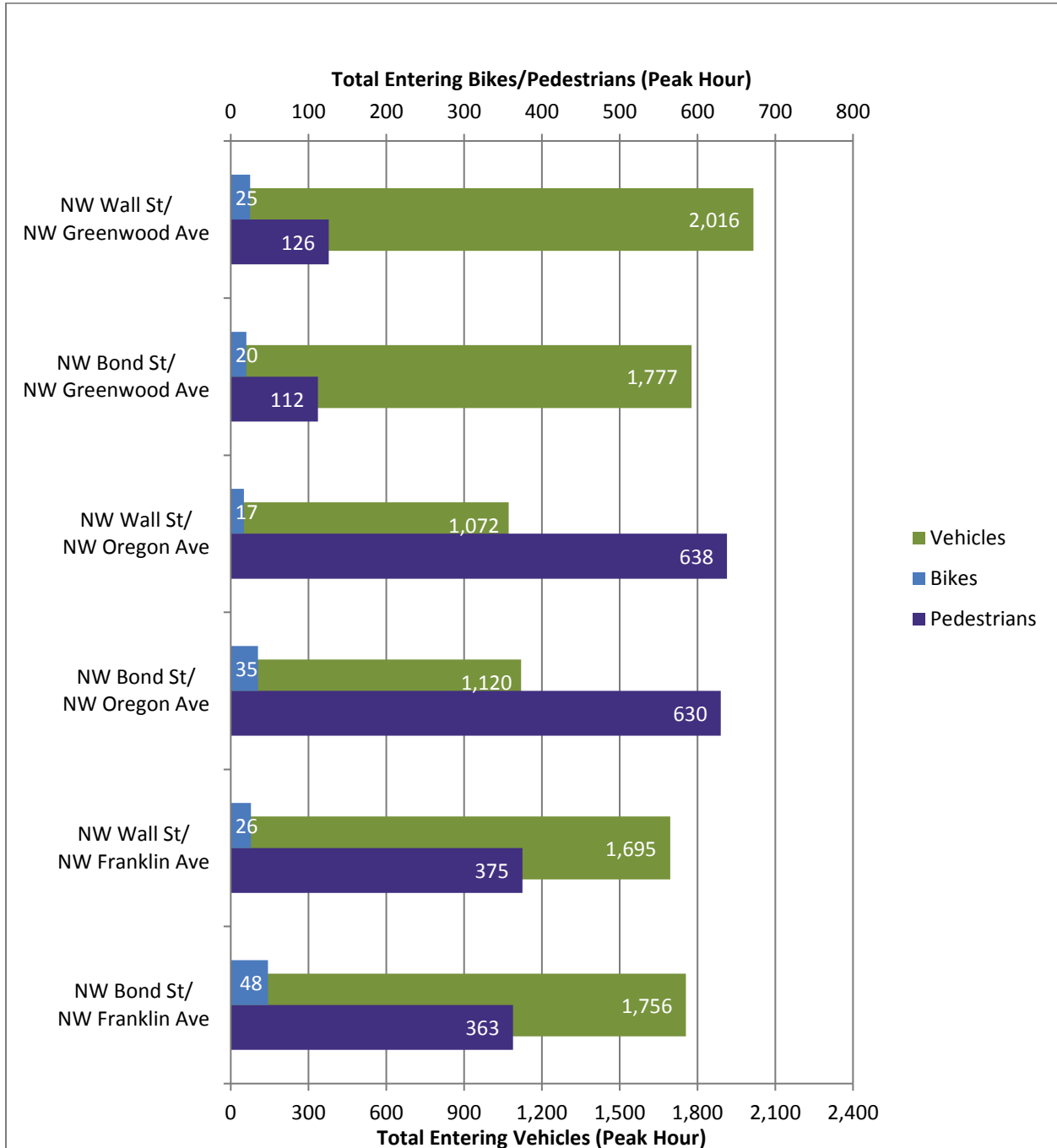


Exhibit 4-4 shows the total entering vehicles, bikes and pedestrians at each location during the evening peak hour. Note that the same scale is employed as was used for the midday peak period.

Exhibit 4-3. Evening Peak Hour Total Entering Volumes by Location



Summaries for the traffic counts collected at each location are provided in the following pages, using the same order shown in the graphs above.

LOCATION: SW CENTURY DRIVE/SW COLORADO AVENUE (ID 770)



Functional Classification: Minor Arterial/
Minor Arterial

Cross-Section: Bicycle lanes on SW Century Drive and east leg of SW Colorado Avenue; Drive, sidewalks/trails on all roadways

Traffic Control: Roundabout

Source: Turning Movement Counts


Date: Tuesday, May 17, 2016, 3:30-5:30 p.m.

Peak Hour: 3:30-4:30 p.m.


Vehicles and Heavy Vehicles Percentage:

	SB	6%	1%	4%	SB	
EB		31	↙ 233	↓ 79		WB
1%	↘ 142	SW Century Drive/ SW Colorado Avenue			28	↘ 0%
5%	→ 265	5/17/2016, 3:30-4:30 p.m.			177	← 7%
1%	↙ 140	↙ 92	↑ 293	↘ 128		↙ 3%
EB						WB
	NB	1%	3%	7%	NB	

Bicyclists:

	↙	↙	↓	
	0	2	0	
→	0		0	←
↙	0		1	↘
↙	0		0	↘
	3	4	0	
	↙	↙	↑	

Pedestrians:

	5		
0		2	
		6	

LOCATION: NW WALL STREET/NW GREENWOOD AVENUE (NOT ON MAP)



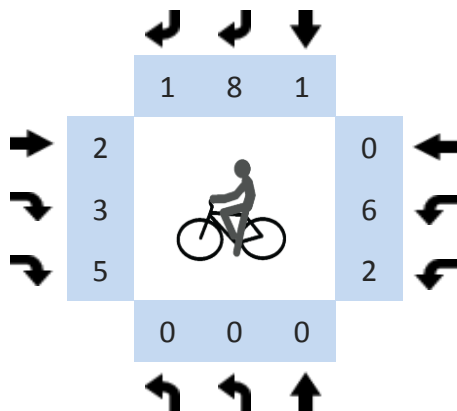
Functional Classification: Minor Arterial/ Minor Arterial
Cross-Section: Sidewalks on all roadways
Traffic Control: Signal
Source: Turning Movement Counts
Date: Tuesday, July 19, 2016; 7:00-9:00 a.m., 11:00 a.m.-1:00 p.m., and 4:00-6:00 p.m.
Peak Hours: 7:55-8:55 a.m., 11:55 a.m.-12:55 p.m.; 5:00-6:00 p.m.

Weekday Morning Peak Hour:

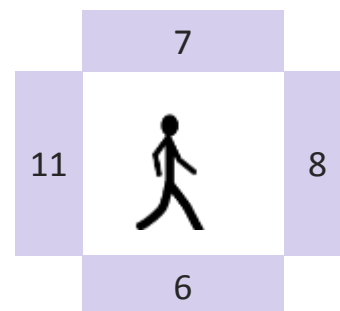
Vehicles and Heavy Vehicles Percentage:

	SB	1%	7%	0%	SB		
EB		88	185	61		WB	
6%	→	97	NW Wall Street/ NW Greenwood Avenue			11 ←	0%
5%	↘	349	7/19/2016, 7:55-8:55 a.m.			354 ↘	8%
2%	↙	90				113 ↙	6%
EB		0	0	0		WB	
	NB	0%	0%	0%	NB		

Bicyclists:



Pedestrians:

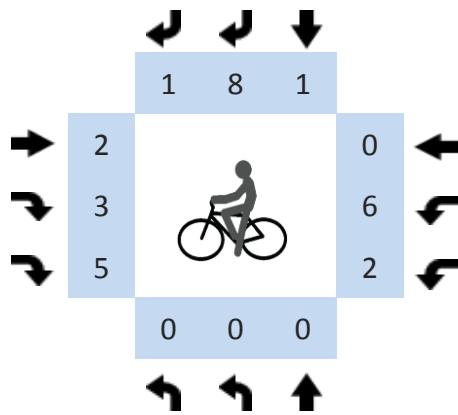


Weekday Midday Peak Hour:

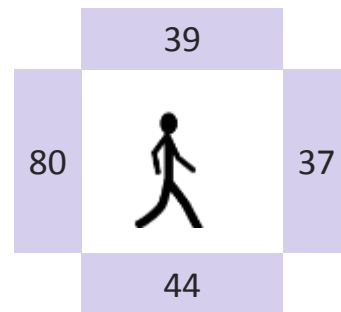
Vehicles and Heavy Vehicles Percentage:

	SB	2%	1%	9%	SB				
EB		163	↙	133	↙	194	↓		WB
3%	→	164	NW Wall Street/			23	←	0%	
4%	↘	471	NW Greenwood Avenue			471	↘	3%	
3%	↘	174	7/19/2016, 11:55a.m.-12:55 p.m.			232	↘	2%	
EB		↙	0	↙	0	↑	0		WB
	NB	0%	0%	0%	NB				

Bicyclists:



Pedestrians:

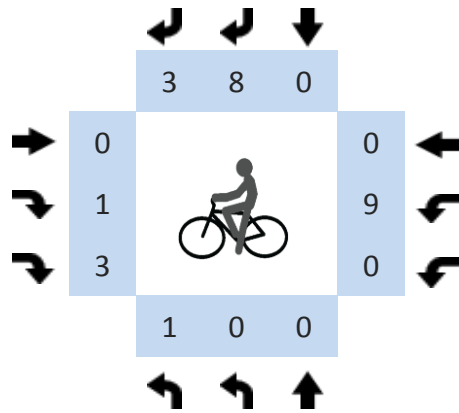


Weekday Evening Peak Hour:

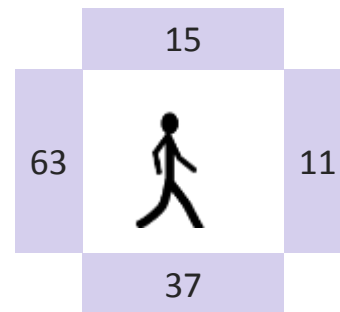
Vehicles and Heavy Vehicles Percentage:

	SB	2%	0%	2%	SB		
EB		153	↙ 339	↙ 87	↓	WB	
2%	→	129	NW Wall Street/ NW Greenwood Avenue		18	←	0%
3%	↘	360	7/19/2016, 5:00-6:00 p.m.		548	↘	1%
1%	↘	153			229	↘	0%
EB		↙ 0	↙ 0	↑ 0		WB	
	NB	0%	0%	0%	NB		

Bicyclists:



Pedestrians:



LOCATION: NW BOND STREET/NW GREENWOOD AVENUE (NOT ON MAP)



Functional Classification: Minor Arterial/ Minor Arterial

Cross-Section: Sidewalks on all roadways

Traffic Control: Signal

Source: Turning Movement Counts

Date: Tuesday, July 19, 2016; 7:00-9:00 a.m., 11:00 a.m.-1:00 p.m., and 4:00-6:00 p.m.

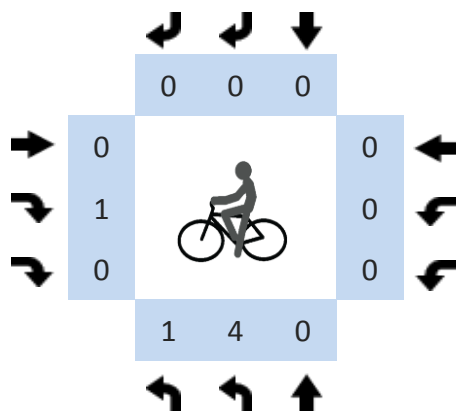
Peak Hours: 7:55-8:55 a.m., 11:55 a.m.-12:55 p.m.; 5:00-6:00 p.m.

Weekday Morning Peak Hour:

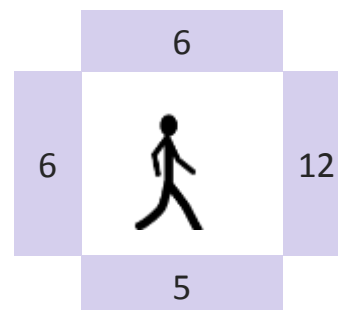
Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB	
EB		0	0	0		WB
0%	➔ 19	NW Bond Street/ NW Greenwood Avenue			33	← 3%
5%	➔ 397	7/19/2016, 7:55-8:55 a.m.			391	↶ 7%
0%	↶ 0				0	↶ 0%
EB		↶ 96	↶ 144	↑ 111		WB
	NB	10%	3%	4%	NB	

Bicyclists:



Pedestrians:

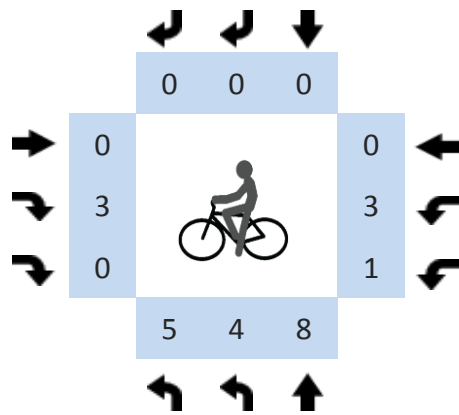


Weekday Midday Peak Hour:

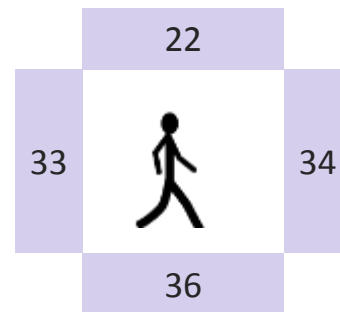
Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB	
EB		0	↙ 0	↙ 0	↓ 0	WB
0%	→ 17	NW Bond Street/ NW Greenwood Avenue			40 ←	5%
4%	↘ 553				513 ↘	3%
0%	↘ 0	7/19/2016, 11:55a.m.-12:55 p.m.			0 ↘	0%
EB		↙ 205	↙ 265	↑ 208		WB
	NB	2%	2%	2%	NB	

Bicyclists:



Pedestrians:

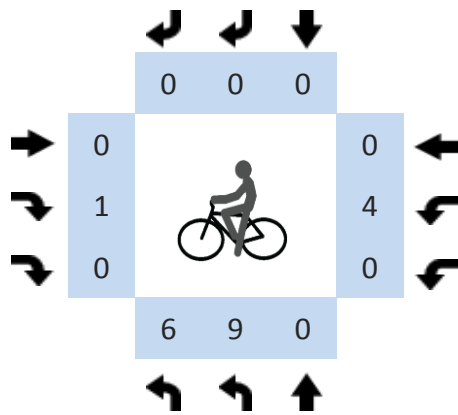


Weekday Evening Peak Hour:

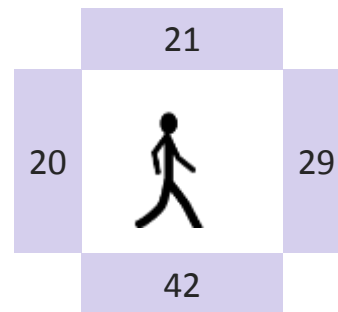
Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB	
EB		0	↙ 0	↙ 0	↓ 0	WB
9%	→ 11	NW Bond Street/ NW Greenwood Avenue 7/19/2016, 5:00-6:00 p.m.			25 ←	0%
3%	↘ 447				577 ↘	1%
0%	↘ 0				0 ↘	0%
EB		↙ 239	↙ 267	↑ 211		WB
	NB	1%	1%	0%	NB	

Bicyclists:



Pedestrians:



LOCATION: NW WALL STREET/NW OREGON AVENUE (NOT ON MAP)



Functional Classification: Minor Arterial/ Major Collector

Cross-Section: Sidewalks on all roadways

Traffic Control: Signal

Source: Turning Movement Counts

Date: Tuesday, July 19, 2016; 7:00-9:00 a.m., 11:00 a.m.-1:00 p.m., and 4:00-6:00 p.m.

Peak Hours: 8:00-9:00 a.m., 12:00-1:00 p.m.; 4:40-5:40 p.m.

Weekday Morning Peak Hour:

Vehicles and Heavy Vehicles Percentage:

	SB	0%	5%	2%	SB		
EB		14	317	50		WB	
0%	→ 0	NW Wall Street/ NW Oregon Avenue				← 0	0%
21%	↘ 19	7/19/2016, 8:00-9:00 a.m.				↙ 22	0%
4%	↘ 23					↙ 46	0%
EB		← 0	← 0	↑ 0		WB	
	NB	0%	0%	0%	NB		

Bicyclists:

		↘ 2	↘ 8	↓ 1	
→ 0	Bicyclist				← 0
↘ 3					↙ 2
↘ 4					↙ 0
		← 0	← 0	↑ 0	

Pedestrians:

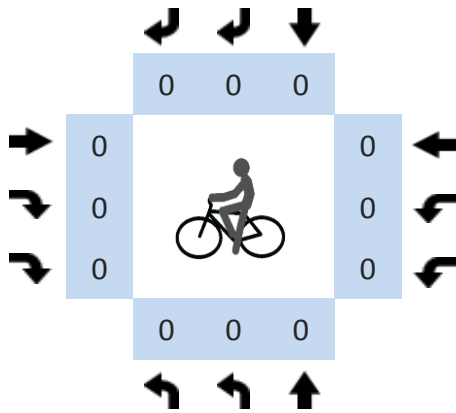
	17	
11	Pedestrian	18
	21	

Weekday Midday Peak Hour:

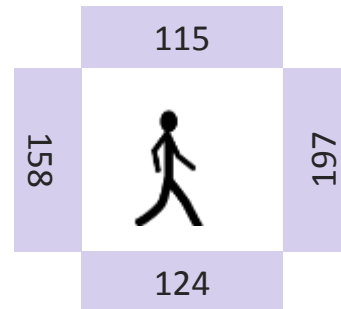
Vehicles and Heavy Vehicles Percentage:

	SB	7%	3%	0%	SB	
EB		54	↙ 608	↘ 105		WB
0%	→ 0	NW Wall Street/ NW Oregon Avenue			0	← 0%
13%	↘ 30	7/19/2016, 12:00-1:00 p.m.			61	↙ 7%
0%	↘ 30				168	↙ 1%
EB		↙ 0	↘ 0	↑ 0		WB
	NB	0%	0%	0%	NB	

Bicyclists:



Pedestrians:

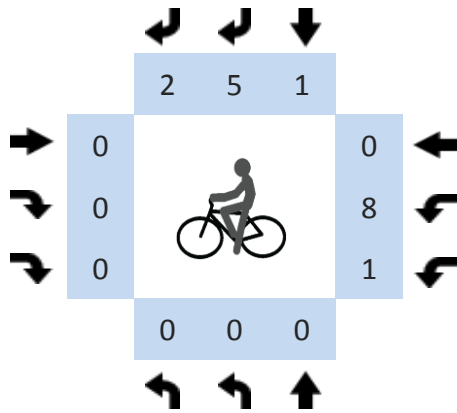


Weekday Evening Peak Hour:

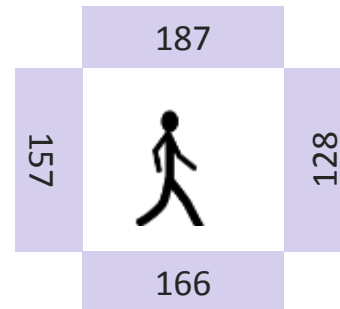
Vehicles and Heavy Vehicles Percentage:

	SB	0%	1%	0%	SB				
EB		63	↙	602	↙	84	↓		WB
0%	→	0	NW Wall Street/ NW Oregon Avenue				0	←	0%
0%	↘	43					63	↘	0%
0%	↘	65	7/19/2016, 4:40-5:40 p.m.				152	↘	1%
EB		↙	0	↙	0	↑	0		WB
	NB	0%	0%	0%	NB				

Bicyclists:



Pedestrians:



LOCATION: NW BOND STREET/NW OREGON AVENUE (NOT ON MAP)



Functional Classification: Minor Arterial/ Major Collector

Cross-Section: Sidewalks on all roadways

Traffic Control: Signal

Source: Turning Movement Counts

Date: Tuesday, July 19, 2016; 7:00-9:00 a.m., 11:00 a.m.-1:00 p.m., and 4:00-6:00 p.m.

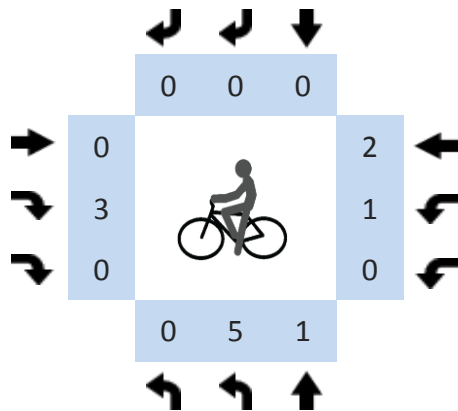
Peak Hours: 8:00-9:00 a.m., 12:00-1:00 p.m.; 4:40-5:40 p.m.

Weekday Morning Peak Hour:

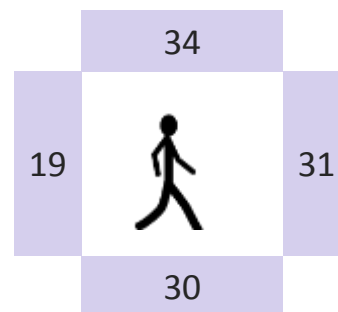
Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB				
EB		0	↙	0	↙	0	↓		WB
14%	→	21	NW Bond Street/ NW Oregon Avenue			32	←	3%	
2%	↘	48	7/19/2016, 8:00-9:00 a.m.			29	↘	0%	
0%	↘	0			0	↘	0%		
EB		↙	41	↙	324	↑	43		WB
	NB	2%	5%	2%	NB				

Bicyclists:



Pedestrians:

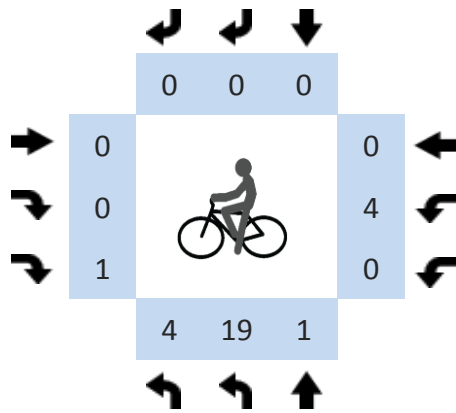


Weekday Midday Peak Hour:

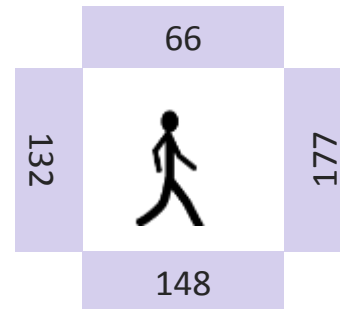
Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB	
EB		0	↩ 0	↩ 0	↓ 0	WB
0%	→ 70	NW Bond Street/ NW Oregon Avenue 7/19/2016, 12:00-1:00 p.m.			125	← 2%
3%	↗ 101				↖ 78	↖ 3%
0%	↘ 0				↘ 0	↘ 0%
EB		↖ 135	↖ 522	↑ 102		WB
	NB	0%	2%	1%	NB	

Bicyclists:



Pedestrians:

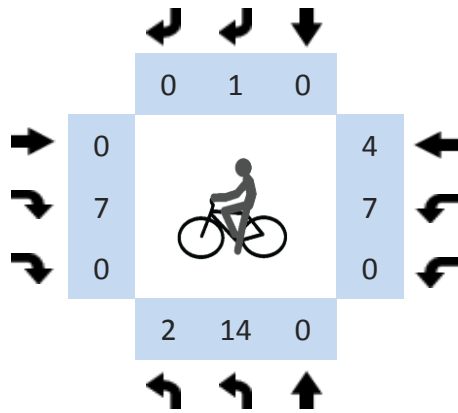


Weekday Evening Peak Hour:

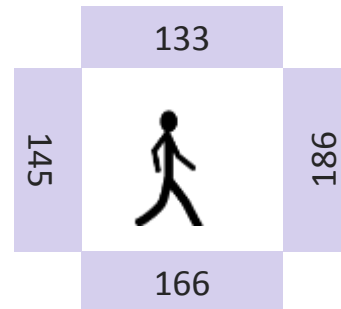
Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB	
EB		0	↶ 0	↶ 0	↓ 0	WB
1%	➡ 79	NW Bond Street/ NW Oregon Avenue 7/19/2016, 4:40-5:40 p.m.			179	↠ 0%
1%	↷ 88				89	↶ 1%
0%	↷ 0				0	↶ 0%
EB		↶ 116	↶ 500	↑ 69		WB
	NB	1%	1%	1%	NB	

Bicyclists:



Pedestrians:



LOCATION: NW WALL STREET/NW FRANKLIN AVENUE (ID 764)



Functional Classification: Major Collector/Minor Arterial (Wall Street transitions at Franklin)/ Minor Arterial

Cross-Section: Sidewalks on all roadways, sharrows on westbound NW Franklin Avenue and bike lane at eastbound NW Franklin Avenue at intersection

Traffic Control: Signal

Source: Turning Movement Counts

Date: Tuesday, July 19, 2016; 7:00-9:00 a.m., 11:00 a.m.-1:00 p.m., and 4:00-6:00 p.m.

Peak Hours: 7:55-8:55 a.m., 11:55 a.m.-12:55 p.m.; 4:40-5:40 p.m.

Weekday Morning Peak Hour:

Vehicles and Heavy Vehicles Percentage:

	SB	8%	4%	1%	SB		
EB		77	198	85		WB	
0%	→	0	NW Wall Street/ NW Franklin Avenue			0 ←	0%
3%	↘	260	7/19/2016, 7:55-8:55 a.m.			211 ↘	5%
0%	↘	10				114 ↘	4%
EB		↙	0	↙	0	↙	WB
	NB	0%	0%	0%	NB		

Bicyclists:

		↙	↙	↓		
		1	6	0		
→	0				0 ←	
↘	4				2	↘
↘	1				0	↘
		0	0	0		
		↙	↙	↑		

Pedestrians:

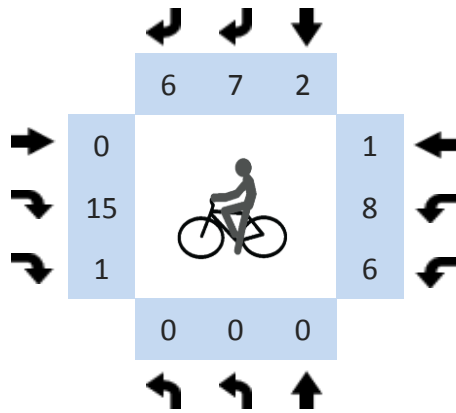
	34		
19			13
	9		

Weekday Midday Peak Hour:

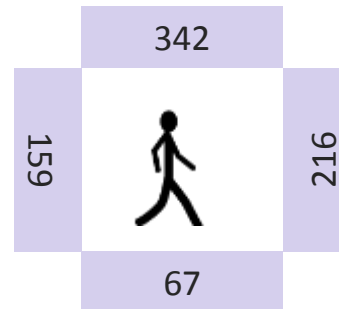
Vehicles and Heavy Vehicles Percentage:

	SB	1%	3%	2%	SB	
EB		207	↙ 356	↓ 151		WB
0%	→ 0	NW Wall Street/ NW Franklin Avenue			0	← 0%
5%	↘ 390				311	↙ 4%
0%	↘ 31	7/19/2016, 11:55a.m.-12:55 p.m.			154	↙ 4%
EB		↙ 0	↙ 0	↑ 0		WB
	NB	0%	0%	0%	NB	

Bicyclists:



Pedestrians:

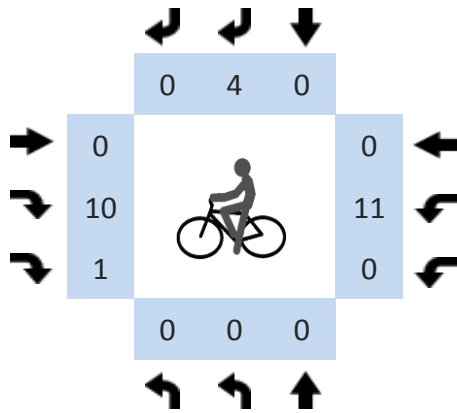


Weekday Evening Peak Hour:

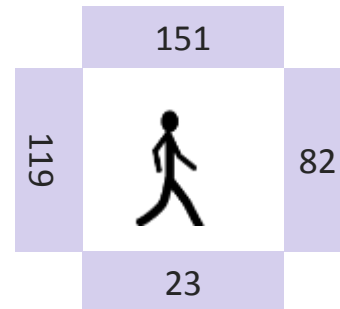
Vehicles and Heavy Vehicles Percentage:

	SB	2%	1%	0%	SB				
EB		237	↙	392	↙	131	↓		WB
0%	→	0	NW Wall Street/			0	←	0%	
2%	↘	388	NW Franklin Avenue			366	↘	1%	
0%	↘	30	7/19/2016, 4:40-5:40 p.m.			151	↘	1%	
EB		↙	0	↙	0	↑	0		WB
	NB	0%	0%	0%	NB				

Bicyclists:



Pedestrians:



LOCATION: NW BOND STREET/NW FRANKLIN AVENUE (ID 765)



Functional Classification: Major Collector/Minor Arterial (Bond Street transitions at Franklin)/ Minor Arterial

Cross-Section: Sidewalks on all roadways, sharrows on NW Franklin Avenue at intersection

Traffic Control: Signal

Source: Turning Movement Counts

Date: Tuesday, July 19, 2016; 7:00-9:00 a.m., 11:00 a.m.-1:00 p.m., and 4:00-6:00 p.m.

Peak Hours: 7:55-8:55 a.m., 11:55 a.m.-12:55 p.m.; 4:40-5:40 p.m.

Weekday Morning Peak Hour:

Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB	
EB		0	↶ 0	↷ 0	↘ 0	WB
4%	↗ 107	NW Bond Street/ NW Franklin Avenue			70	↖ 6%
2%	↘ 234	7/19/2016, 7:55-8:55 a.m.			290	↗ 5%
0%	↖ 0				0	↘ 0%
EB		↖ 52	↗ 258	↘ 128		WB
	NB	0%	3%	4%	NB	

Bicyclists:

		↶ 0	↷ 0	↘ 0	
↗ 0		0 6 2			↖ 0
↘ 1		0 6 2			↗ 2
↖ 0		0 6 2			↘ 0
		↖ 0	↗ 6	↘ 2	
		↖ 0	↗ 6	↘ 2	
		↖ 0	↗ 6	↘ 2	

Pedestrians:

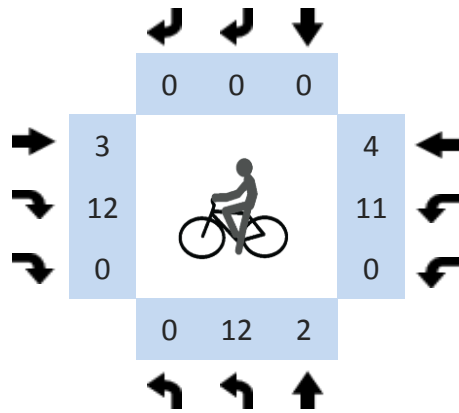
		21		
1		56		
		5		

Weekday Midday Peak Hour:

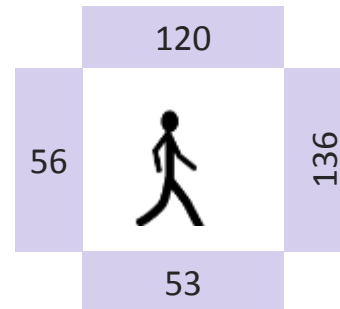
Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB	
EB		0	↙ 0	↙ 0	↓ 0	WB
1%	→ 187	NW Bond Street/ NW Franklin Avenue			134 ←	1%
6%	↘ 346				↘ 399	4%
0%	↘ 0	7/19/2016, 11:55a.m.-12:55 p.m.			↘ 0	0%
EB		↙ 79	↙ 444	↑ 191		WB
	NB	1%	2%	3%	NB	

Bicyclists:



Pedestrians:

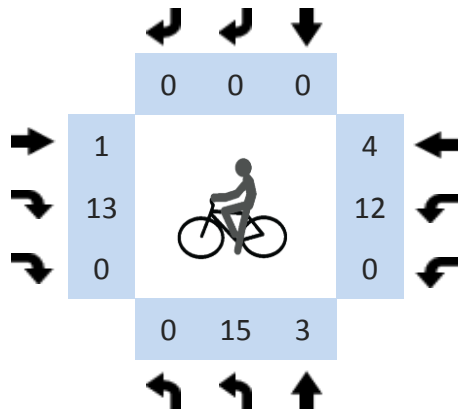


Weekday Evening Peak Hour:

Vehicles and Heavy Vehicles Percentage:

	SB	0%	0%	0%	SB	
EB		0	↶ 0	↶ 0	↘ 0	WB
0%	➔ 180	NW Bond Street/ NW Franklin Avenue 7/19/2016, 4:40-5:40 p.m.			106	↵ 2%
3%	↶ 335				443	↶ 1%
0%	↶ 0				0	↶ 0%
EB		↶ 67	↶ 434	↗ 191		WB
	NB	1%	1%	2%	NB	

Bicyclists:



Pedestrians:

