

MEMORANDUM

Date: April 8, 2019

To: Scott Gregory, Lamphier-Gregory

From: Matt Goyne, Neil Smolen, and Jarrett Mullen, Fehr & Peers

Subject: Sid Commons FEIR: 2019 Supplemental Traffic Evaluation

SF06-0299

This memorandum presents a supplemental traffic evaluation to supplement the information contained in the Sid Commons Draft Environmental Impact Report (DEIR). The DEIR analyzed environmental impacts of the Sid Commons multifamily development project (herein referred to as "the Project") located in the City of Petaluma, CA. Since the completion of the DEIR, the Project was revised to include fewer residential units among other changes ("Revised Project"). This memorandum presents additional data and analysis conducted for the FEIR to determine whether the DEIR adequately accounts for the potential transportation impacts of the Revised Project while addressing the following four questions raised by City Council:

- 1. Are the traffic counts used in the DEIR analysis (from 2007 and 2015) reflective of current conditions?
- 2. Would the Revised Project generate more traffic compared to what was presented in the DEIR, based on national and local data?
- 3. To what extent might traffic generated by the Revised Project use Jess Avenue instead of Graylawn Avenue to access Payran Street? Would this traffic along Jess Avenue result in an impact to traffic operations on that street?
- 4. Do traffic conditions on Graylawn or Jess avenues with or without the Revised Project exceed the City's livable streets standards based on 2019 traffic data, and therefore warrant consideration of a traffic calming program?

A separate memorandum *Sid Common FEIR: Traffic Calming Strategies* (Fehr & Peers, April 2019) documents preliminary traffic calming strategies to address the findings of question 4.



Project Background

The Project presented in the DEIR included 278 apartment units. Based on a January 2019 site plan and project description, the Revised Project evaluated within this memorandum for the FEIR consists of 205 low-rise apartment units. The Project site is at the northern end of Graylawn Avenue, a local residential street, which provides vehicle, bicycle, and pedestrian access to the site. Jess Avenue, along with Graylawn Avenue, connects the Project site to West Payran Street. Compared to Jess Avenue, Graylawn Avenue is the shortest and most direct pathway for people to access the Project site (see **Figure 1**).

Earlier Project plans featured site access via an easterly extension of Shasta Avenue, including a new at-grade railroad crossing of the SMART commuter rail corridor. The street extension was subsequently removed in response to public agency comments received during the environmental review process referencing State polices that discourage new at-grade railroad crossings.

Data Collection

New traffic volume and speed data was collected in January and February 2019 to help answer the four questions outlined above. The count locations are shown on **Figure 1**. The days the counts were collected were sunny days and area schools were in session.

First, pneumatic tube counting machines were deployed in three locations to recorded average daily traffic (ADT) volumes along Graylawn and Jess avenues. One additional tube counting machines on Graylawn Avenue north of Cordelia Drive recorded vehicle speed. The counting machines were active for a continuous 72-hour period, starting Tuesday January 22, 2019 and ending Thursday January 24, 2019. For technical reasons, the traffic counting equipment was placed just north of several houses on Graylawn or Jess avenues, and therefore would not capture vehicles leaving these homes and traveling to Payran Avenue. Based on standard the Institute of Transportation Engineers' *Trip Generation 10th ed.* rates, these houses approximately 20 to 30 vehicle trips per day. This topic is briefly discussed in the qualitative discussion of the results of these analyses.





Figure 1

Traffic Count Locations Sid Commons FEIR 2019 Supplementary Traffic Evaluation Mr. Scott Gregory April 8, 2019 Page 4 of 13



Second, counting cameras were deployed at four intersections on January 23, 2019, to capture movements made by motorists, bicyclists and pedestrians during typical weekday morning (7-9AM) and evening (4-6PM) peak commute periods. Turning movement counts were collected at the following intersections (numbers match the DEIR):

- 6. Payran Street / Petaluma Boulevard
- 9. Payran Street / East Washington Street
- 12. Payran Street / Graylawn Avenue 20. Graylawn Avenue / Jess Avenue

The first three intersections were study intersections in the DEIR. The fourth intersection at Graylawn Avenue / Jess Avenue was not evaluated in the DEIR but was selected to aid the evaluation of potential impacts on Jess Avenue.

Supplemental intersection peak period and 72-hour counts were conducted in March to confirm that the January counts were not influenced by the adjacent MLK Holiday, which was the one week without rain during the initial data collection period. The March counts (**Appendix B**) are not substantially different from the January counts (**Appendix A**), thus confirming that the January counts adequately represented 2019 conditions.

Evaluation

Traffic Volume Comparison

The Project development application has been under review for more than ten years. In that time, Bay Area regional traffic congestion has increased as the has economy boomed and housing options close to jobs have not kept pace. The traffic counts for the DEIR were collected in 2007 and 2008 and again in 2015, when the traffic analysis was conducted. Members of the public and Petaluma's City Council questioned whether the vehicle congestion and delay results from the traffic analysis adequately represented current traffic conditions.

Fehr & Peers compared turning movement counts at three of the 14 study intersections from the DEIR (Figure 1) to determine whether traffic volumes have changed since 2015. These intersections were selected due to their proximity to the Project site as they would experience the greatest concentration of Project trips and the greatest potential for a significant impact if traffic volumes changed substantially. The three intersection turning movement counts are summarized in **Table 1** and the detailed count sheets are provided in **Appendix A**.



Table 1: Vehicle Volume Comparison at Study Intersections

	DEIR I	Existing	2010	Counts		C	hange	
Study Intersection	Vol	umes	2019	Counts	Co	ount	١	Percent
	AM	PM	AM	PM	AM	PM	AM	PM
6: Petaluma Blvd / Payran St.	2,616	2,961	2,971	2,717	355	-244	14%	-8%
9: Payran St. / E. Washington St.	2,289	3,007	2,344	2,515	55	-492	2%	-16%
12: Payran St. / Graylawn Ave.	586	908	897	817	311	-91	53%	-10%
TOTAL	5,491	6,876	6,212	6,049	721	- 827	13%	-12%

Overall, total traffic volumes in the PM peak hour decreased by twelve percent, while increasing by 13 percent in the AM peak hour. The DEIR found that the intersections were more congested during the PM peak hour than the AM peak hour. The 2019 counts indicate that the AM peak hour congestion may have increased and is now similar to the PM peak hour. One possible reason that PM peak hour traffic volumes adjacent to the project site have decreased during the PM peak hour is due to peak period spreading, where the traffic volumes during the peak hour don't change substantially but the length of the peak period increases. The locations where volumes have increased during the AM peak hour are discussed further below.

At study intersection 12, Payran Street / Graylawn Avenue, traffic volumes increased by approximately 300 vehicles, or 53 percent, during the AM peak hour. To determine if the increase in volumes would significantly affect intersection operations, we compared the level of service analysis from the DEIR to with the 2019 counts. In the DEIR, this intersection operated at level of service (LOS) B in the weekday morning peak hour during the AM and PM peak hours, which indicates the intersection had excess capacity and drivers experienced small levels of delay. The higher 2019 AM volumes are similar to the DEIR PM peak hour volumes, when the intersection also operated at LOS B. Under the future scenarios presented in the DEIR, the traffic operations at this intersection not exceed LOS C operations in the AM or PM peak hours. This indicates that this change in AM peak hour traffic volumes would not substantially affect the traffic operations and the 2019 traffic volumes would not substantially change intersection operations.

Study intersection 6, Petaluma Boulevard / Payran Street, saw the largest absolute increase in traffic volumes over the four-year period, but the findings are the similar to intersection 12. In 2015 this intersection operated at LOS C in the weekday AM peak hour. As shown in Appendix A, nearly all the increase in morning peak-hour volumes occurs in the northbound and southbound through

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movements, which were not congested and had excess capacity under 2015. The 2019 volumes are similar to those analyzed for the PM peak hour in the DEIR, which also operated at LOS C. Under the future scenarios presented in the DEIR, the traffic operations at this intersection continue to operate at LOS C. Therefore, the effects of these volume changes on vehicle delay would be minimal and the traffic counts used in the DEIR adequately reflect 2019 conditions.

Trip Generation

City Council and the public questioned whether the data used for the Project's trip generation forecast was suited to the Project's setting. The DEIR estimated project-generated vehicle trips based on rates from the Institute of Transportation Engineers' (ITE) *Trip Generation 9th edition* manual, which contain data based on research conducted in the United States over the past few decades for various land use categories, predominantly in suburban settings with limited alternatives to auto travel. These rates tend to overestimate vehicle travel in compact urban areas with a mix of land uses, but are generally applicable to suburban settings, such as the Project site.

To evaluate the suitability of the DEIR trip generation rates for the FEIR Revised Project, we compared the estimated traffic generated by the Project in the DEIR to the amount generated by the existing Oak Creek Apartments (low-rise apartment building neighboring the Project site) to determine whether the national rates were locally appropriate. We also estimated traffic that would be generated by the Revised Project using the recently published the 10th edition of ITE's *Trip Generation* manual.

Parking on Graylawn Avenue north of Jess Avenue is restricted to the residents and visitors of the Oak Creek Apartments. Therefore, vehicles on Graylawn Avenue north of Jess Avenue are most likely associated with the Oak Creek Apartments. As shown in Table 2, the number of vehicle trips divided by the number of occupied units at the Oak Creek Apartments represents the trip generation rates for this residential complex. These local trip generation rates can be used to estimate the number of vehicle trips that the Revised Project would generate if it has similar characteristics as the Oak Creek Apartments.



Table 2: Oak Creek Apartments Trip Rates

Dwelling Units		Dail	y Volum	e		АМ	Peak H	our	PM Peak Hour					
(a)	In	Out	Total (b)	Rate (b/a)	In	Out	Total (b)	Rate (b/a)	In	Out	Total (b)	Rate (<i>b/a</i>)		
76	266	257	523	6.88	8	36	44	0.58	31	21	52	0.68		

As presented in **Table 3**, the local trip generation rates from Table 2 do not differ substantially from the ITE *Trip Generation* 9th Edition rates from the DEIR nor the ITE *Trip Generation* 10th Edition rates, which are the most recent nationally available data. The daily rate for the 10th Edition is the highest, while the local rate is the highest for the AM and PM peak hours. For either of the three data sources, the Revised Project would generate fewer vehicle trips than the DEIR Project. Therefore, the Revised Project would not generate more traffic or create more substantial impacts compared to what was evaluated in the DEIR. For the purposes of the FEIR, the 10th Edition rates was selected to represent the most conservative analysis on a daily basis.

Table 3: Project Trip Generation Comparison

Data Sour	ce	Da		AM F	Peak H	our	PM Peak Hour					
Reference	Size	Trip Rate ¹	Trips	Trip Rate	ln	Out	Total	Trip Rate	In	Out	Total	
DEIR Project ²	278 DU	6.5	1,808	0.50	28	112	140	0.61	111	60	171	
ITE 9 th Ed.	205 DU	6.5	1,366	0.51	21	84	105	0.62	85	46	131	
ITE 10 th Ed.	205 DU	7.32	1,591	0.46	22	73	95	0.56	71	42	113	
Local Rate ³	205 DU	6.88	1,410	0.58	21	97	119	0.68	84	56	140	
Net Change ⁴	-73 DU		-217		-6	-39	-45		-40	-18	-58	

Notes:

- 1. ITE-based trip rates based on data for fitted curve equations published in the respective version of ITE's *Trip Generation*.
- 2. Original Proposed Project was 278 units, however the DEIR analysis used trip generation for a 312-unit project to be consistent with previous analyses of the Project and to present a more conservative (worst case) analysis of the Project.
- 3. From Table 2.
- 4. ITE *Trip Generation 10th ed.* trip rates was selected to forecast the Revised Project's trip generation because it results in the highest daily trip volume and the most conservative value for the local street capacity analysis.



Neighborhood Trip Assignment

The DEIR assumed all inbound and outbound Project trips would use Graylawn Avenue, the local street which connects to Payran Street to present a conservative (worst case) traffic analysis. As noted previously, Graylawn Avenue and Jess Avenue are the two local streets which connect to Payran Street but Graylawn is more direct route (**Figure 1**). Generally, drivers select the fastest and most direct routes to reach their destinations but unique circumstances could affect route choice. City Council and members of the public asked how much Project-generated traffic would use Jess Avenue and whether this traffic would create a significant impact to traffic operations.

To test this possibility, Fehr & Peers conducted weekday morning and evening peak-period turning movement counts at the intersection of Graylawn Avenue / Jess Avenue to determine how existing drivers use each street. Given the adjacency of the Oak Creek Apartments and the Project site, the existing travel patterns would be similar to conditions with the Revised Project.

As shown in **Table 4**, between 10 and 20 percent of drivers used Jess Avenue to access Oak Creek Apartments during the data collection period. This matches overserved conditions and the daily vehicle counts that traffic volumes are much lower on Jess Avenue compared to Graylawn Avenue.

Table 4: Oak Creek Apartments Trip assignment

		AM F	Peak H	our		Р	M Peak	(Hour	AM+PM Peak Hour
Street	ln	Out	Total	Percenta ge	ln	Out	Total Percentage		Percentage
Graylawn Ave.	7	29	36	82%	29	18	47	90%	86%
Jess Ave.	1	7	8	18%	2	3	5	10%	14%
TOTAL			44				52		

Applying these percentages to the Revised Project, an estimated 11 to 21 vehicle trips (depending on the rate and peak hour) would use Jess Avenue during the AM or PM peak hours (**Table 5**). As Graylawn Avenue operates at an acceptable LOS with and without the project, this level of Project-generated traffic on Jess Avenue would not result in additional traffic operational impacts.



Table 5: Revised Project Trip Assignment to Jess Avenue

	,	AM Peak Hour			PM Peak Hour	
Street	Total Vehicle Trips	Percent using Jess	Vehicles using Jess	Total Vehicle Trips	Percent using Jess	Vehicles using Jess
10 th Edition	95	100/	17	113	100/	11
Local Rate	119	18%	21	140	10%	14

Local Roadway Capacity

Pursuant to the City of Petaluma Department of Engineering's Street Design and Construction Standards & Specifications,² local residential streets are intended to carry up to a maximum ADT of 2,000 trips, serving approximately 200 dwellings. Therefore, the City's 2,000 ADT local street capacity standard is the primary performance measure for this analysis. If the City's standard is exceeded, the City and Project Sponsor could consider implementing traffic calming measures enhance livability. As noted in the DEIR, the City's roadway design standards as defined in the 2025 Mobility Report are not CEQA thresholds but do provide a relative means of measuring the effect of vehicle traffic on the street environment and adjacent residential uses.

Table 6 summarizes the traffic volume data collection for each of the days individually, as well as for the average of the three days, and compares the 2019 counts to the average volumes from 2015 for Graylawn Avenue.³ The 2019 two-way ADT for Graylawn Avenue the street section ranged between 1,112 and 1,161 vehicles per day. The two-way ADT for Jess Avenue ranged between 404 and 441 vehicles per day, with an average volume of 418 vehicles per day. All traffic count data are attached to the end of this memorandum (**Appendix A, Appendix B**).

Overall, the three-day average volume on Graylawn Avenue increased by 20% to 1,142 vehicles per day in 2019 from 954 vehicles per day in 2015. Most of this increase in traffic is due to the increase in traffic generated during the AM and PM peak periods (**Chart 1**), with the peak traffic conditions occurring over a longer period in the evening. However, as noted above, compared to what was analyzed in the DEIR, the peak hour traffic operations have not substantially changed at the

² City of Petaluma Department of Engineering, Street Design and Construction Standards & Specifications, Street Standards Design and Application Guidelines (page 3), May 1999

³ 2015 counts were documented in the memorandum Graylawn Data Collection Summary and Roadway Capacity Analysis (Fehr & Peers, April 2016).



intersection of Graylawn Avenue / Payran Street. Therefore, the traffic evaluation presented in the DEIR remains adequate.

Table 6: ADT Count Comparison for Graylawn and Jess Avenues

Count Year	Tuesday	Wednesday	Thursday	Three-Day Average
Graylawn Avenue				
2019	1,152	1,161	1,112	1,142
2015				954
Net Change				+ 188
Jess Avenue				
2019	441	404	411	419

Chart 1: 3-Day Average Traffic Volume by Time



Table 7 presents the 2019 daily traffic volumes on Graylawn and Jess avenues with the addition of the Revised Project. The Revised Project would cause Graylawn Avenue to exceed the City's local street standard of 2,000 ADT while traffic volumes on Jess Avenue would remain less than half of this standard. These findings are consistent with the DEIR. This analysis is based on the trip generation data for the Revised Project from Table 3, using the *Trip Generation 10th edition* rates, and the trip assignment split from Table 3. Use of other trip generation rates or the DEIR's assumption that all Project-generated vehicles would use Graylawn Avenue would not change these conclusions.



Table 7: Traffic Volumes Versus Design Standards

Scenario	Graylawn Avenue	Jess Avenue
Existing ADT	1,142	419
Revised Project Contribution of ADT	1,368	223 ¹
Existing plus Revised Project ADT	2,510	642
Exceed Design Standard of 2,000 ADT?	YES	NO

Notes:

1. 14 percent of daily project vehicles are estimated to Jess Avenue based on the average of the AM and PM peak periods presented in Table 4.

As noted in the DEIR, the Project exceeding the City's design standard of 2,000 ADT would not result in a significant impact under CEQA. Although not required as CEQA mitigation, traffic calming measures on Graylawn Avenue would help address conflicts with the City's design standard for residential streets.

Traffic speeds are another measure to determine whether traffic calming strategies are appropriate for a local residential street. A standard engineering measurement of traffic speeds is the 85th percentile speed, which is the maximum speed at which 85 percent of motorists are traveling along a given block. These residential roadways do not have a posted speed limits; therefore, the prima facie speed limit is 25 MPH. As noted in the 2025 Mobility Report, desired speeds for local residential streets are less than 25 miles per hour (mph).⁴ Therefore, this analysis uses 25 mph as the 85th percentile speed where vehicle speeds warrant consideration of traffic calming measures.

Vehicle speed data was collected during a 72-hour mid-week period at a mid-block location on Graylawn Avenue between Payran Street and Jess Avenue to capture "free-flow" driver speed, independent from stopping and turning maneuvers at intersections that result in lower speeds. As shown in **Table 8**, the 85th percentile vehicle speeds on Graylawn Avenue exceed the 25-mph threshold outlined in the 2025 Mobility Report.

⁴ City of Petaluma, Petaluma General Plan 2025 (Table 5.2-2 Typical Attributes of Different Street Types), March 2008



Table 8: Graylawn Avenue 85th Percentile Vehicle Speed

Location	Northbound	Southbound
Graylawn Ave. between Cordelia Ct. & Bernice Dr.	28.4 mph	29.4 mph
Exceed 25 mph 85 th percentile speed?	YES	YES

Conclusion

The supplementary data collection and analysis indicate that the DEIR adequately addresses the potential impacts of the Revised Project. The following are a summary of findings from the initial questions.

1. Are the traffic counts used in the FEIR analysis (from 2007 and 2015) reflective of current conditions?

Yes, for the purpose of analyzing Project impacts on peak-hour intersection operations under CEQA. Turning movement counts collected in January 2019 at study intersections #6, #9, and #12 show volumes decreased in the PM peak hour between eight and 16 percent, while AM peak hour volumes increased between two and 53 percent. These traffic levels are similar to those analyzed for the PM peak hour in the DEIR and were found to operate acceptably under all study scenarios. Therefore, the traffic counts used in the FEIR are reflective of current conditions.

2. Would the Revised Project generate more traffic compared to what was presented in the DEIR, based on national and local data?

No, the trip generation forecasts presented in the DEIR document are greater than what would be generated by the Revised Project. This is confirmed based on local and national data sources.

3. To what extent might traffic generated by the Revised Project use Jess Avenue instead of Graylawn Avenue to access Payran Street? Would this traffic along Jess Avenue result in an impact to traffic operations on that street?

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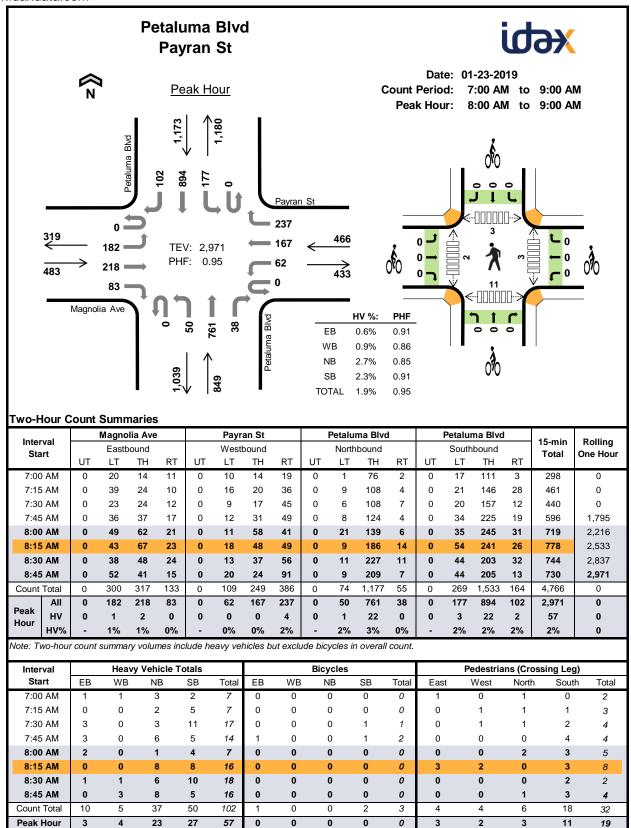
On average, 86 percent of drivers departing or approaching the Oak Creek Apartments use Graylawn Avenue to access Payran Street and the remainder use Jess Avenue. The addition of traffic generated by the Revised Project would not create a significant impact to Jess Avenue.

4. Do traffic conditions on Graylawn or Jess avenues with or without the Revised Project exceed the City's livable streets standards based on 2019 traffic data, and therefore warrant consideration of a traffic calming program?

Yes. Existing traffic speeds and future traffic volumes with the Revised Project exceed the standards outlined in the City of Petaluma's General Plan for a local residential street. The memorandum *Sid Common FEIR: Traffic Calming Strategies* (Fehr & Peers, April 2019) documents preliminary traffic calming strategies for the City, Project Sponsor, and neighborhood residents to consider.

Appendix A

January 2019 Traffic Volume Data Sheets

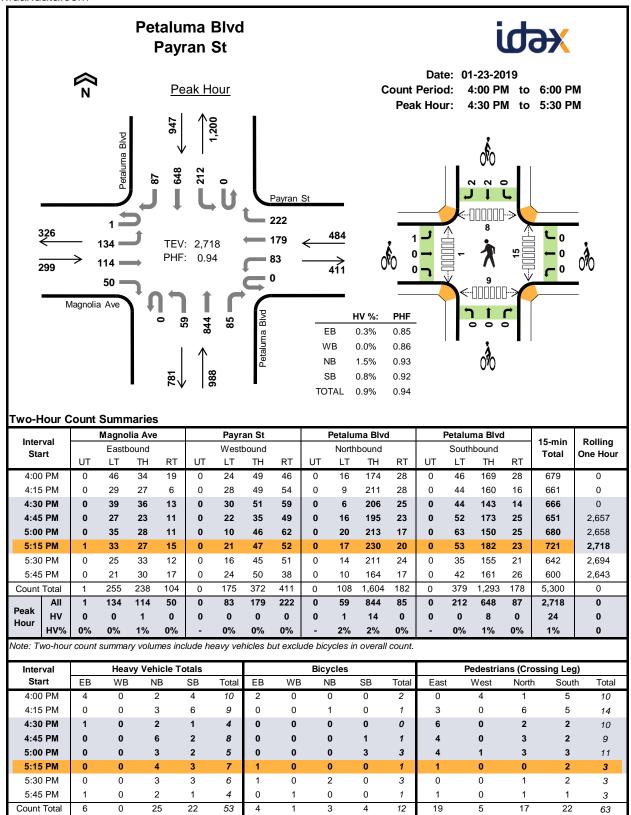


Interval		Magno	lia Ave			Payran St				Petaluma Blvd				Petalur	na Blvd	15-min	Rolling	
Start		Eastb	ound			Westl	bound			North	bound			South	bound		Total	One Hour
••••	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	. • • • •	0.10 1.10
7:00 AM	0	1	0	0	0	0	1	0	0	0	3	0	0	0	2	0	7	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	4	0	7	0
7:30 AM	0	0	2	1	0	0	0	0	0	1	2	0	0	1	7	3	17	0
7:45 AM	0	1	1	1	0	0	0	0	0	0	6	0	0	0	4	1	14	45
8:00 AM	0	1	1	0	0	0	0	0	0	0	1	0	0	0	3	1	7	45
8:15 AM	0	0	0	0	0	0	0	0	0	1	7	0	0	1	6	1	16	54
8:30 AM	0	0	1	0	0	0	0	1	0	0	6	0	0	2	8	0	18	55
8:45 AM	0	0	0	0	0	0	0	3	0	0	8	0	0	0	5	0	16	57
Count Total	0	3	5	2	0	0	1	4	0	2	35	0	0	5	39	6	102	0
Peak Hour	0	1	2	0	0	0	0	4	0	1	22	0	0	3	22	2	57	0

Two-Hour Count Summaries - Bikes

I(I	Ma	agnolia A	Ave		Payran S	it	Pe	taluma E	Blvd	Pe	taluma E	lvd	45	D - III
Interval Start	E	Eastboun	d	V	Vestboun	ıd	١	Northbour	nd	S	outhbour	nd	15-min Total	Rolling One Hour
Otart	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One riou
7:00 AM	0	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	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:45 AM	1	0	0	0	0	0	0	0	0	0	1	0	2	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	0	0	0	0	0	0	0	0	2	0	3	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



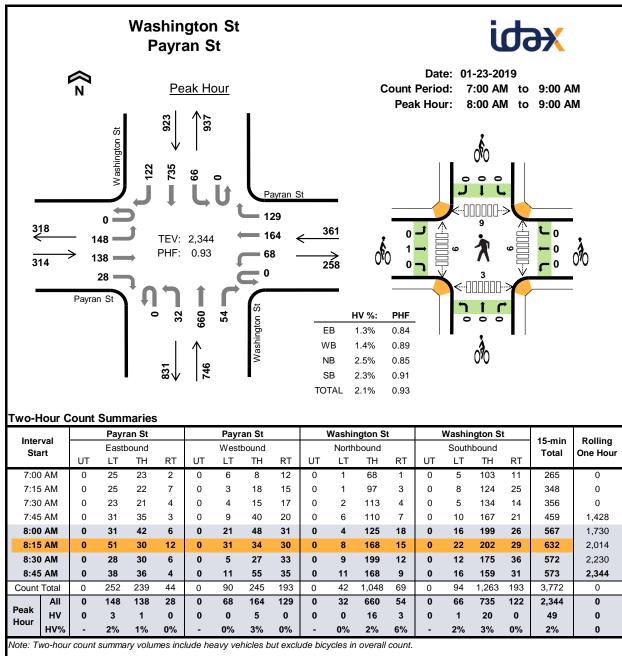
Peak Hour

Interval		Magno	lia Ave			Payr	an St			Petaluma Blvd				Petalur	na Blvo	ı	15-min	Rolling
Start		Eastb	ound			Westl	bound			North	bound			South	bound		Total	One Hour
••••	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	. • • • •	0.10 1.00.
4:00 PM	0	3	0	1	0	0	0	0	0	0	2	0	0	0	4	0	10	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	4	1	9	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0	8	31
5:00 PM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0	5	26
5:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	24
5:30 PM	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2	0	6	26
5:45 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	0	4	22
Count Total	0	3	1	2	0	0	0	0	0	2	23	0	0	2	19	1	53	0
Peak Hour	0	0	1	0	0	0	0	0	0	1	14	0	0	0	8	0	24	0

Two-Hour Count Summaries - Bikes

I(I	Ma	agnolia A	lve		Payran S	t	Pe	taluma B	llvd	Per	taluma E	lvd	45	D - III
Interval Start	E	Eastboun	d	V	Vestboun	d	N	lorthboun	nd	S	outhbour	nd	15-min Total	Rolling One Hour
Otare	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One neur
4:00 PM	2	0	0	0	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	3	5
5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	5
5:30 PM	0	1	0	0	0	0	0	1	1	0	0	0	3	8
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	8
Count Total	3	1	0	0	1	0	0	2	1	0	2	2	12	0
Peak Hour	1	0	0	0	0	0	0	0	0	0	2	2	5	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



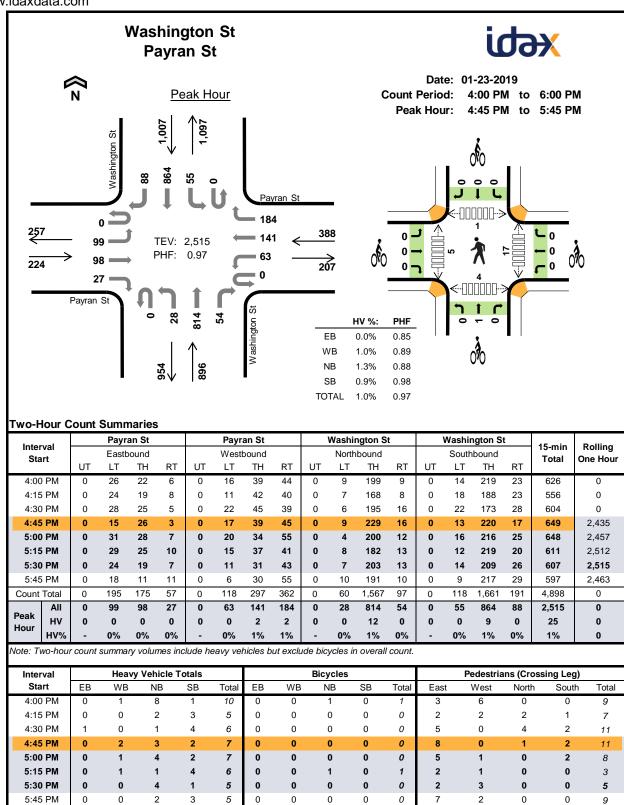
Interval		Heavy	Vehicle	Totals				Bicycles	i			Pedestria	ns (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	4	3	5	13	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	3	5	5	14	0	0	0	0	0	0	1	0	2	3
7:30 AM	1	3	4	6	14	0	0	0	0	0	2	2	1	0	5
7:45 AM	1	2	4	2	9	0	0	1	1	2	0	0	0	2	2
8:00 AM	2	0	2	5	9	0	0	0	0	0	1	2	1	1	5
8:15 AM	0	0	7	6	13	0	0	0	0	0	2	1	4	1	8
8:30 AM	0	1	5	7	13	1	0	0	0	1	1	2	2	1	6
8:45 AM	2	4	5	3	14	0	0	0	0	0	2	1	2	0	5
Count Total	8	17	35	39	99	1	0	1	1	3	8	9	10	7	34
Peak Hour	4	5	19	21	49	1	0	0	0	1	6	6	9	3	24

Interval		Payr	an St			Payr	an St		1	Washir	gton S	t	1	Washin	gton S	t	15-min	Rolling
Start		Eastb	oound			Westl	bound			North	bound			South	bound		Total	One Hour
••••	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	. • • • •	0.10 1.00.
7:00 AM	0	1	0	0	0	2	1	1	0	0	3	0	0	0	5	0	13	0
7:15 AM	0	0	0	1	0	0	1	2	0	0	4	1	0	0	5	0	14	0
7:30 AM	0	0	1	0	0	1	0	2	0	0	4	0	0	0	6	0	14	0
7:45 AM	0	0	1	0	0	0	2	0	0	0	4	0	0	0	2	0	9	50
8:00 AM	0	2	0	0	0	0	0	0	0	0	2	0	0	1	4	0	9	46
8:15 AM	0	0	0	0	0	0	0	0	0	0	5	2	0	0	6	0	13	45
8:30 AM	0	0	0	0	0	0	1	0	0	0	5	0	0	0	7	0	13	44
8:45 AM	0	1	1	0	0	0	4	0	0	0	4	1	0	0	3	0	14	49
Count Total	0	4	3	1	0	3	9	5	0	0	31	4	0	1	38	0	99	0
Peak Hour	0	3	1	0	0	0	5	0	0	0	16	3	0	1	20	0	49	0

Two-Hour Count Summaries - Bikes

		Payran S	it		Payran S	it	Wa	shingto	n St	Wa	shingto	n St		- ···
Interval Start	I	Eastboun	d	١	Westboun	ıd	١	lorthbour	nd	S	outhbour	nd	15-min Total	Rolling One Hour
Otart	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	Total	One nou
7:00 AM	0	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	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	1	0	0	0	0	0	1	0	0	1	0	3	0
Peak Hour	0	1	0	0	0	0	0	0	0	0	0	0	1	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Count Total

Peak Hour

lusta usual		Payr	an St			Payr	an St		1	Washir	gton S	t	1	Washin	gton S	t	45	Dallina
Interval Start		Eastb	oound			Westl	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	rotar	One riou
4:00 PM	0	0	0	0	0	0	0	1	0	0	8	0	0	0	1	0	10	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	4	0	6	0
4:45 PM	0	0	0	0	0	0	1	1	0	0	3	0	0	0	2	0	7	28
5:00 PM	0	0	0	0	0	0	0	1	0	0	4	0	0	0	2	0	7	25
5:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	4	0	6	26
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	5	25
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	23
Count Total	0	1	0	0	0	0	2	3	0	0	25	0	0	0	20	0	51	0
Peak Hour	0	0	0	0	0	0	2	2	0	0	12	0	0	0	9	0	25	0

Two-Hour Count Summaries - Bikes

Interval		Payran S	it		Payran S	it	Wa	shingto	n St	Wa	shingtor	n St	45 min	Dalling
Interval Start		Eastboun	d	v	Vestboun	ıd	١	Northbour	nd	s	outhbour	nd	15-min Total	Rolling One Hour
3.	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		Cito tioui
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	2	0	0	0	0	2	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	0	0	1	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Greylawn Ave Payran St Date: 01-23-2019 Peak Hour Count Period: 7:00 AM to 9:00 AM Peak Hour: 8:00 AM to 9:00 AM Payran St = 15 **407** 897 PHF: 0.93 408 === Payran St HV %: PHF ΕВ 1.4% 0.79 WB 1.2% 0.87 NB

Two-Hour Count Summaries

Project Manager: (415) 310-6469

11	1		Payr	an St			Payr	an St			(0			Greyla	wn Ave	,	45	D - III
Inter Sta	-		Easth	oound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Ote		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One riou
7:00) AM	0	2	43	0	0	0	30	3	0	0	0	0	0	6	0	5	89	0
7:15	5 AM	0	2	44	0	0	0	58	4	0	0	0	0	1	5	0	10	124	0
7:30) AM	0	2	49	0	0	0	53	2	0	0	0	0	0	2	0	14	122	0
7:45	5 AM	0	1	73	0	0	0	78	5	0	0	0	0	0	2	0	7	166	501
8:00) AM	0	4	99	0	0	0	98	2	0	0	0	0	0	6	0	16	225	637
8:15	5 AM	0	6	129	0	0	0	91	7	0	0	0	0	0	0	0	9	242	755
8:30) AM	0	3	96	0	0	0	99	4	0	0	0	0	0	5	0	2	209	842
8:45	5 AM	0	5	84	0	0	0	119	2	0	0	0	0	0	3	0	8	221	897
Count	Total	0	25	617	0	0	0	626	29	0	0	0	0	1	29	0	71	1,398	0
	All	0	18	408	0	0	0	407	15	0	0	0	0	0	14	0	35	897	0
Peak Hour	HV	0	0	6	0	0	0	5	0	0	0	0	0	0	0	0	0	11	0
rioui	HV%	_	0%	1%	_	_	_	1%	0%	-	_	_	_	_	0%	_	0%	1%	0

0.0%

1.2%

SB TOTAL 0.56

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval		Heavy	Vehicle	Totals				Bicycles	;			Pedestria	ns (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	3	0	0	4	0	0	0	0	0	0	0	1	0	1
7:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1
7:30 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	3	3
7:45 AM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	7	7
8:15 AM	2	1	0	0	3	0	0	0	0	0	0	0	1	4	5
8:30 AM	3	0	0	0	3	1	0	0	0	1	0	0	0	2	2
8:45 AM	0	4	0	0	4	0	0	0	0	0	0	0	1	0	1
Count Total	11	9	0	1	21	1	1	0	0	2	0	0	3	17	20
Peak Hr	6	5	0	0	11	1	1	0	0	2	0	0	2	13	15

lusta musal		Payr	an St			Payr	an St				0			Greyla	wn Ave)	45	Dalling
Interval Start		Eastb	ound			Westl	bound			North	bound			South	bound		15-min Total	Rolling One Hour
otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One near
7:00 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	10
8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
8:15 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	9
8:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9
8:45 AM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4	11
Count Total	0	0	11	0	0	0	9	0	0	0	0	0	0	0	0	1	21	0
Peak Hour	0	0	6	0	0	0	5	0	0	0	0	0	0	0	0	0	11	0

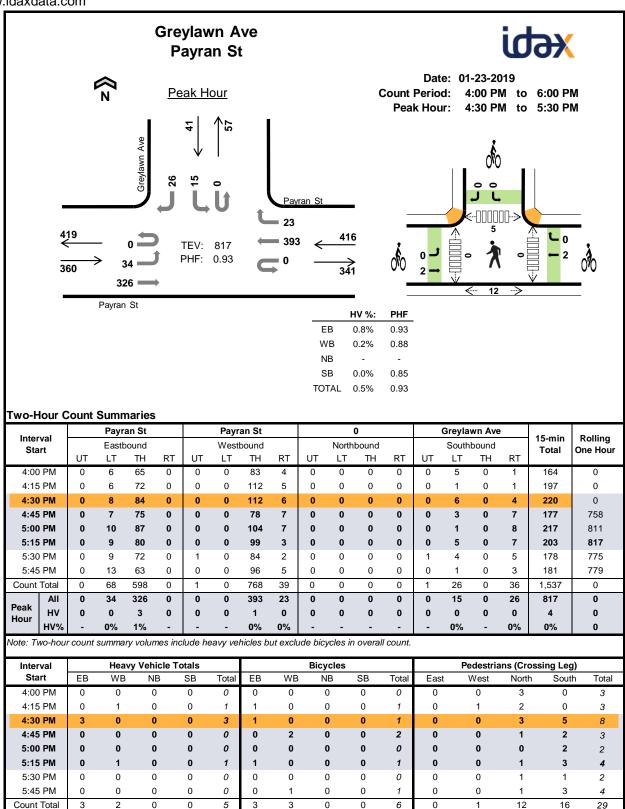
Two-Hour Count Summaries - Bikes

lu (a maal		Payran S	t		Payran S	t		0		Gr	eylawn A	lve	45	D - 111
Interval Start	- 1	Eastboun	d	V	Vestboun	d	N	lorthbour	nd	S	outhbour	nd	15-min Total	Rolling One Hour
Otare	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	rotar	One riou
7:00 AM	0	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	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	1	0	0	1	0	0	0	0	0	0	0	2	0
Peak Hour	0	1	0	0	1	0	0	0	0	0	0	0	2	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Peak Hr

Project Manager: (415) 310-6469

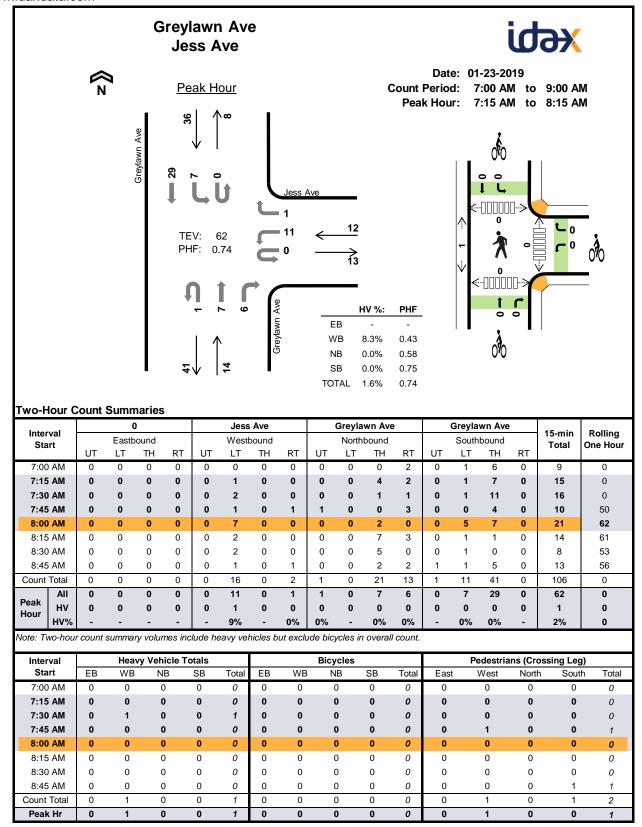


lusta usual		Payr	an St			Payr	an St			(0			Greyla	wn Ave		45 :	Dalling
Interval Start		Eastb	ound			Westl	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One riou
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	5	0
Peak Hour	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0

Two-Hour Count Summaries - Bikes

l		Payran S	t		Payran S	t		0		Gr	eylawn A	lve	45	D. III.
Interval Start		Eastboun	d	V	Vestboun	d	N	lorthboun	nd	S	outhbour	nd	15-min Total	Rolling One Hour
- Clair	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		0.10 1.10
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	2
Count Total	0	3	0	0	3	0	0	0	0	0	0	0	6	0
Peak Hour	0	2	0	0	2	0	0	0	0	0	0	0	4	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

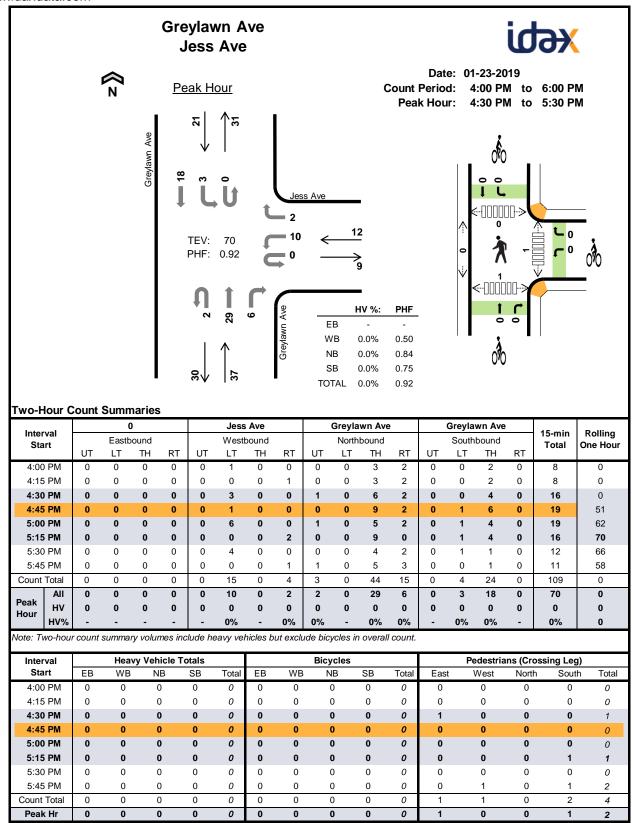


Interval		()			Jess	Ave			Greyla	wn Ave)		Greyla	wn Ave		15-min	Rolling
Start		Eastb	ound			Westl	bound			North	bound			South	bound		Total	One Hour
Otari	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One riou
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0

Two-Hour Count Summaries - Bikes

lu (a maal		0			Jess Ave		Gr	eylawn <i>A</i>	Ave	Gr	eylawn A	Ave	45	D - III
Interval Start	E	Eastboun	d	٧	Vestboun	d	N	lorthboun	ıd	S	outhbour	nd	15-min Total	Rolling One Hour
-	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		0.10 1.10
7:00 AM	0	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	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



lusta usual		()			Jess	Ave			Greyla	wn Ave)		Greyla	wn Ave		45	Dalling
Interval Start		Eastb	ound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One riou
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Bikes

Interval		0			Jess Ave)	Gr	eylawn <i>A</i>	Ave	Gr	eylawn <i>A</i>	Ave	45	Dalling
Interval Start	- 1	Eastboun	d	V	Vestboun	d	N	lorthboun	ıd	S	outhbour	nd	15-min Total	Rolling One Hour
3.	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		0.10 1.10
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Location: Graylawn Ave B/W Jess Ave & Oak Creek Apt Dwy Date Range: 1/22/2019 - 1/28/2019

Site Code: A

		Tuesda	у	w	ednesd	ay	Т	hursda	у		Friday	,	;	Saturda	ıy		Sunda	у		Monda	у	_		
	1	/22/201	9	1	/23/201	9	1	/24/201	9	1	/25/201	19		1/26/201	19	1	/27/20	19	1	1/28/201	19	Mid-V	leek A	verage
Time	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	1	2	3	1	2	3	6	2	8	-	-	-	-	-	-	-	-	-	-	-	-	3	2	5
1:00 AM	4	1	5	2	0	2	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	3	1	4
2:00 AM	0	2	2	0	1	1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	0	2	2
3:00 AM	1	1	2	1	2	3	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
4:00 AM	1	2	3	2	4	6	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5
5:00 AM	1	13	14	2	15	17	1	15	16	-	_	_	_	_	-	_	_	-	_	_	_	1	14	16
6:00 AM	2	15	17	2	20	22	0	18	18	-	-	-	-	_	-	-	-	-	-	_	_	1	18	19
7:00 AM	6	33	39	10	38	48	5	32	37	_	_	-	_	_	_	_	_	_	_	_	_	7	34	41
8:00 AM	21	21	42	20	18	38	18	23	41	-	-	-	-	_	-	-	-	-	-	_	_	20	21	40
9:00 AM	6	15	21	8	15	23	9	19	28	_	_	_	_	_	_	_	_	_	_	_	_	8	16	24
10:00 AM	7	6	13	10	11	21	5	8	13	_	_	_	_	_	_	_	_	_	_	_	_	7	8	16
11:00 AM	9	7	16	8	17	25	9	10	19	_	_	_	_	_	_	_	_	_	_	_	_	9	11	20
12:00 PM	7	15	22	12	15	27	10	9	19	-	-	-	-	-	-	-	-	-	-	-	-	10	13	23
1:00 PM	14	12	26	16	21	37	9	14	23	_	_	_	_	_	_	_	_	_	_	_	_	13	16	29
2:00 PM	13	13	26	18	13	31	17	18	35	_	_	_	_	_	_	_	_	_	_	_	_	16	15	31
3:00 PM	31	15	46	23	13	36	23	10	33	_	_	_	_	_	_	_	_	_	_	_	_	26	13	38
4:00 PM	29	18	47	23	16	39	29	15	44	_	_	_	_	_	_	_	_	_	_	_	_	27	16	43
5:00 PM	24	16	40	32	12	44	23	17	40	_	_	_	_	_	_	_	_	_	_	_	_	26	15	41
6:00 PM	27	9	36	23	8	31	19	13	32	_	_	_	_	_	_	_	_	_	_	_	_	23	10	33
7:00 PM	16	9	25	17	14	31	23	8	31	_	_	_	_	_	_	_	_	_	_	_	_	19	10	29
8:00 PM	23	13	36	17	4	21	11	6	17	_	_	_	_	_	_	_	_	_	_	_	_	17	8	25
9:00 PM	9	3	12	18	6	24	16	6	22	_	_			_	_			_		_	_	14	5	19
10:00 PM	9	1	10	13	5	18	8	4	12													10	3	13
11:00 PM	6	3	9	4	1	5	2	0	2	_	_	_	_	_	_	_	_	_	_	_	_	4	1	5
Total	267	245	512	282	271	553	250	254	504	-	-	-	-	-	-	-	-	-	-	-	-	266	257	523
Percent	52%	48%	-	51%	49%	-	50%	50%	-	-	-	-	-	-	-	-	-	-	-	-	-	51%	49%	-
AM Peak	08:00	07:00	08:00	08:00	07:00	07:00	08:00	07:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	08:00	07:00	
Vol.	21	33	42	20	38	48	18	32	41	-	-	-	-	-	-	-	-	-	-	-	-	20	34	41
PM Peak	15:00	16:00	16:00	17:00	13:00	17:00	16:00	14:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	16:00	16:00	16:00 43
Vol.	31	18	47	32	21	44	29	18	44	-	-	-	-	-	-	-	-	-	-	-	-	27	16	

^{1.} Mid-week average includes data between Tuesday and Thursday.



Location: Graylawn Ave B/W Payran St & Betty Ct Date Range: 1/22/2019 - 1/28/2019

Site Code: B

		Tuesda	y	w	ednesd	ay	Т	hursda	у		Friday	•	,	Saturda	ıy		Sunda	y		Monda	у	=		
	1	/22/201	9	1	/23/201	9	1	/24/201	9	1	/25/201	19	1	1/26/201	19	1	/27/20	19	1	1/28/201	19	Mid-V	/eek A	verage
Time	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	3	3	6	2	2	4	4	3	7	-	-	-	-	-	-	-	-	-	-	-	-	3	3	6
1:00 AM	6	3	9	1	0	1	3	0	3	_	-	-	-	-	_	-	_	-	-	_	-	3	1	4
2:00 AM	0	3	3	1	2	3	0	0	0	_	_	_	-	_	-	_	_	_	-	_	_	0	2	2
3:00 AM	1	2	3	2	3	5	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5
4:00 AM	0	4	4	1	5	6	2	5	7	-	-	-	-	-	-	-	-	-	-	-	-	1	5	6
5:00 AM	1	21	22	2	25	27	2	22	24	_	_	_	_	_	_	_	_	_	_	_	_	2	23	24
6:00 AM	3	26	29	7	32	39	5	35	40	_	-	-	_	_	_	_	_	-	_	_	_	5	31	36
7:00 AM	18	54	72	27	59	86	16	52	68	_	_	-	_	_	_	_	_	-	_	_	_	20	55	75
8:00 AM	44	54	98	41	50	91	45	52	97	-	-	-	-	-	-	-	-	-	-	_	_	43	52	95
9:00 AM	14	30	44	21	30	51	22	36	58	_	_	_	_	_	_	_	_	_	_	_	_	19	32	51
10:00 AM	24	28	52	31	24	55	25	20	45	-	-	_	-	_	-	_	-	_	-	_	_	27	24	51
11:00 AM	25	16	41	28	36	64	23	19	42	_	_	_	_	_	_	_	_	_	_	_	_	25	24	49
12:00 PM	22	25	47	32	33	65	24	23	47	-	-	-	-	-	-	-	-	-	-	-	-	26	27	53
1:00 PM	24	17	41	39	29	68	36	25	61	-	-	_	_	_	_	_	_	_	_	_	_	33	24	57
2:00 PM	37	29	66	38	28	66	36	35	71	_	_	_	_	_	_	_	_	_	_	_	_	37	31	68
3:00 PM	75	39	114	51	32	83	53	33	86	_	_	_	_	_	_	_	_	_	_	_	_	60	35	94
4:00 PM	71	35	106	56	29	85	64	32	96	_	_	_	_	_	_	_	_	_	_	_	_	64	32	96
5:00 PM	73	36	109	68	34	102	62	34	96	_	_	_	_	_	_	_	_	_	_	_	_	68	35	102
6:00 PM	62	23	85	56	27	83	44	33	77	_	_	_	_	_	_	_	_	_	_	_	_	54	28	82
7:00 PM	35	18	53	37	26	63	54	21	75	_	_	_	_	_	_	_	_	_	_	_	_	42	22	64
8:00 PM	46	16	62	30	9	39	30	15	45	_	_	_	_	_	_	_	_	_	_	_	_	35	13	49
9:00 PM	29	24	53	21	12	33	30	7	37	_	_	_	_	_	_	_	_	_	_	_	_	27	14	41
10:00 PM	13	5	18	26	9	35	10	5	15	_	_	_	_	_	_	_	_	_	_	_	_	16	6	23
11:00 PM	9	6	15	5	2	7	7	2	9	_	_	_	_	_	_	_	_	_	_	_	_	7	3	10
Total	635	517	1,152	623	538	1,161	599	513	1,112	-	-	-	-	-	-	-	-	-	-	-	-	619	523	1,142
Percent	55%	45%	-	54%	46%	-	54%	46%	-	-	-	-	-	-	-	-	-	-	-	-	-	54%	46%	-
AM Peak	08:00	07:00	08:00	08:00	07:00	08:00	08:00	07:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	08:00	07:00	08:00
Vol.	44	54	98	41	59	91	45	52	97	-	-	-	-	-	-	-	-	-	-	-	-	43	55	95
PM Peak	15:00	15:00	15:00	17:00	17:00	17:00	16:00	14:00	16:00	-	-	-	-	-	-	-	-	-	-	-	-	17:00	15:00	
Vol.	75	39	114	68	34	102	64	35	96	-	-	-	-	-	-	-	-	-	-	-	-	68	35	102

^{1.} Mid-week average includes data between Tuesday and Thursday.



Location: Jess Ave N/O Payran St Date Range: 1/22/2019 - 1/28/2019

Site Code: C

		Гuesda	у	w	ednesd	ay	Т	hursda	ıy		Friday	,	;	Saturda	ау		Sunda	y		Monda	у	_		
	1	/22/201	9	1	1/23/201	9	1	/24/201	9	1	/25/201	19	1	/26/20	19	1	1/27/201	19		1/28/201	19	Mid-V	Veek Av	/erage
Time	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	0	2	2	1	2	3	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
1:00 AM	0	0	0	1	0	1	0	0	0	-	-	-	-	-	-	-	_	-	-	-	-	0	0	0
2:00 AM	0	0	0	0	0	0	1	2	3	-	_	-	-	-	-	_	_	-	-	-	-	0	1	1
3:00 AM	2	0	2	2	1	3	0	0	0	-	_	-	-	-	-	_	_	-	-	-	_	1	0	2
4:00 AM	1	0	1	3	1	4	2	1	3	_	_	_	_	_	-	_	_	_	_	_	_	2	1	3
5:00 AM	0	8	8	0	6	6	2	6	8	_	_	_	_	_	_	_	_	_	_	_	_	1	7	7
6:00 AM	1	8	9	2	13	15	2	8	10	_	_	_	_	_	_	_	_	_	_	_	_	2	10	11
7:00 AM	7	27	34	11	29	40	5	26	31	_	_	_	_	_	_	_	_	_	_	_	_	8	27	35
8:00 AM	8	18	26	13	22	35	18	28	46	_	_	_	_	_	_	_	_	_	_	_	_	13	23	36
9:00 AM	13	8	21	2	9	11	3	10	13		_					_	_				_	6	9	15
10:00 AM	4	12	16	5	12	17	7	8	15							_					_	5	11	16
11:00 AM	6	9	15	4	13	17	6	17	23													5	13	18
12:00 PM	17	19	36	12	13	25	7	8	15													12	13	25
	9									-	-	-	-	-	-	-	-	-	-	-	-			
1:00 PM		8	17	17	16	33	12	10	22	-	-	-	-	-	-	-	-	-	-	-	-	13	11	24
2:00 PM	7	13	20	14	14	28	12	14	26	-	-	-	-	-	-	-	-	-	-	-	-	11	14	25
3:00 PM	21	13	34	16	10	26	15	16	31	-	-	-	-	-	-	-	-	-	-	-	-	17	13	30
4:00 PM	14	10	24	13	11	24	19	8	27	-	-	-	-	-	-	-	-	-	-	-	-	15	10	25
5:00 PM	20	20	40	25	13	38	21	19	40	-	-	-	-	-	-	-	-	-	-	-	-	22	17	39
6:00 PM	18	12	30	20	8	28	23	7	30	-	-	-	-	-	-	-	-	-	-	-	-	20	9	29
7:00 PM	13	3	16	8	12	20	8	8	16	-	-	-	-	-	-	-	-	-	-	-	-	10	8	17
8:00 PM	21	26	47	7	4	11	13	9	22	-	-	-	-	-	-	-	-	-	-	-	-	14	13	27
9:00 PM	19	19	38	7	6	13	11	8	19	-	-	-	-	-	-	-	-	-	-	-	-	12	11	23
10:00 PM	3	2	5	4	2	6	4	3	7	-	-	-	-	-	-	-	-	-	-	-	-	4	2	6
11:00 PM	0	0	0	0	0	0	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
Total	204	237	441	187	217	404	195	216	411	-	-	-	-	-	-	-	-	-	-	-	-	195	223	419
Percent	46%	54%	-	46%	54%	-	47%	53%	-	-	-	-	-	-	-	-	-	-	-	-	-	47%	53%	-
AM Peak	09:00	07:00	07:00	08:00	07:00	07:00	08:00	08:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	08:00	07:00	08:00
Vol. PM Peak	13 15:00	27 20:00	34 20:00	13 17:00	29 13:00	40 17:00	18 18:00	28 17:00	46 17:00	-	-	-	-	-	-	-	-	-			-	13 17:00	27 17:00	36 17:00
Vol.	15:00	20:00	20:00 47	25	13:00	38	23	17:00	40													22	17:00	39

^{1.} Mid-week average includes data between Tuesday and Thursday.

Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

Vehicle Speed Report Summary



Location: Graylawn Ave B/W Cordelia Ct & Bernice Dr

Count Direction: Northbound / Southbound

Date Range: 1/22/2019 to 1/24/2019

Site Code: D

								Spee	d Range ((mph)								Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
								Stud	y Total									
Northbound	7	24	205	511	429	97	12	1	0	0	0	0	0	0	0	0	0	1,286
Percent	0.5%	1.9%	15.9%	39.7%	33.4%	7.5%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	11	56	188	378	421	125	13	5	1	1	0	0	3	0	0	0	0	1,202
Percent	0.9%	4.7%	15.6%	31.4%	35.0%	10.4%	1.1%	0.4%	0.1%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	100%
Total	18	80	393	889	850	222	25	6	1	1	0	0	3	0	0	0	0	2,488
Percent	0.7%	3.2%	15.8%	35.7%	34.2%	8.9%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Spe	eed Summa	ry	Total Study Spec	ed Statistics	
Northbound			Northbound		
50th Percentile (Median)	24.2	mph	Mean (Average) Speed	24.0	mph
85th Percentile	28.4	mph	10 mph Pace	19.7 - 29.7	mph
95th Percentile	31.3	mph	Percent in Pace	73.4	%
Southbound			Southbound		
50th Percentile (Median)	24.6	mph	Mean (Average) Speed	24.3	mph
85th Percentile	29.4	mph	10 mph Pace	20.4 - 30.4	mph
95th Percentile	32.1	mph	Percent in Pace	66.7	%

Date Range: 1/22/2019 to 1/24/2019

Site Code: D



Tuesday, January 22, 2019

Northbound

								Spee	d Range ((mph)								Total
Time	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
12:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	7
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 AM	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
7:00 AM	0	0	1	6	3	1	0	0	0	0	0	0	0	0	0	0	0	11
8:00 AM	0	0	7	15	5	3	2	0	0	0	0	0	0	0	0	0	0	32
9:00 AM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
10:00 AM	0	0	2	12	3	0	0	0	0	0	0	0	0	0	0	0	0	17
11:00 AM	0	0	3	1	8	0	0	0	0	0	0	0	0	0	0	0	0	12
12:00 PM	0	0	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	9
1:00 PM	0	0	0	6	8	2	0	0	0	0	0	0	0	0	0	0	0	16
2:00 PM	0	0	5	14	5	0	0	0	0	0	0	0	0	0	0	0	0	24
3:00 PM	1	0	3	15	21	4	0	0	0	0	0	0	0	0	0	0	0	44
4:00 PM	0	0	7	15	13	5	0	0	0	0	0	0	0	0	0	0	0	40
5:00 PM	2	2	15	21	9	1	0	0	0	0	0	0	0	0	0	0	0	50
6:00 PM	0	0	10	13	15	4	1	0	0	0	0	0	0	0	0	0	0	43
7:00 PM	0	0	7	6	7	0	1	0	0	0	0	0	0	0	0	0	0	21
8:00 PM	0	2	10	17	9	1	1	0	0	0	0	0	0	0	0	0	0	40
9:00 PM	0	1	1	11	6	0	0	0	0	0	0	0	0	0	0	0	0	19
10:00 PM	0	0	1	3	4	1	0	0	0	0	0	0	0	0	0	0	0	9
11:00 PM	0	0	2	6	1	0	0	0	0	0	0	0	0	0	0	0	0	9
Total	3	5	78	173	127	23	6	0	0	0	0	0	0	0	0	0	0	415
Percent	0.7%	1.2%	18.8%	41.7%	30.6%	5.5%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed	Summary		Speed Stat	istics	
50th Percentile (Median)	23.6	mph	Mean (Average) Speed	23.6	mph
85th Percentile	28.0	mph	10 mph Pace	18.3 - 28.3	mph
95th Percentile	30.9	mph	Percent in Pace	74.2	%

Date Range: 1/22/2019 to 1/24/2019

Site Code: D



Tuesday, January 22, 2019

Southbound

								Spee	d Range	(mph)								Total
Time	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:00 AM	0	0	5	6	0	1	2	0	0	0	0	0	0	0	0	0	0	14
6:00 AM	0	2	1	10	2	6	0	0	0	0	0	0	0	0	0	0	0	21
7:00 AM	1	2	5	15	14	4	1	0	0	0	0	0	0	0	0	0	0	42
8:00 AM	0	1	10	14	12	2	0	0	0	0	0	0	0	0	0	0	0	39
9:00 AM	0	0	3	7	14	0	1	0	0	0	0	0	0	0	0	0	0	25
10:00 AM	0	1	4	6	7	2	0	0	0	0	0	0	0	0	0	0	0	20
11:00 AM	0	1	1	5	2	4	0	0	0	0	0	0	0	0	0	0	0	13
12:00 PM	0	0	4	1	9	2	0	0	0	0	0	0	0	0	0	0	0	16
1:00 PM	0	0	3	4	3	2	0	0	0	0	0	0	0	0	0	0	0	12
2:00 PM	0	1	3	3	15	0	0	0	0	0	0	0	0	0	0	0	0	22
3:00 PM	0	1	3	5	10	7	0	0	0	0	0	0	3	0	0	0	0	29
4:00 PM	0	1	3	11	12	2	0	0	0	0	0	0	0	0	0	0	0	29
5:00 PM	3	4	4	9	8	4	0	0	0	0	0	0	0	0	0	0	0	32
6:00 PM	0	0	3	3	8	2	0	0	0	0	0	0	0	0	0	0	0	16
7:00 PM	0	0	3	5	7	0	0	0	0	0	0	0	0	0	0	0	0	15
8:00 PM	1	0	5	5	4	2	0	0	0	0	0	0	0	0	0	0	0	17
9:00 PM	0	0	9	5	1	3	0	4	0	0	0	0	0	0	0	0	0	22
10:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
11:00 PM	0	0	2	0	2	0	2	0	0	0	0	0	0	0	0	0	0	6
Total	5	16	75	121	130	44	6	4	0	0	0	0	3	0	0	0	0	404
Percent	1.2%	4.0%	18.6%	30.0%	32.2%	10.9%	1.5%	1.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed	Summary		Speed Stat	istics	
50th Percentile (Median)	24.3	mph	Mean (Average) Speed	24.3	mph
85th Percentile	29.6	mph	10 mph Pace	18.8 - 28.8	mph
95th Percentile	33.6	mph	Percent in Pace	63.6	%

Date Range: 1/22/2019 to 1/24/2019

Site Code: D



Wednesday, January 23, 2019

Northbound

								Spee	d Range	(mph)								Total
Time	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 AM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 AM	0	0	1	3	4	1	0	0	0	0	0	0	0	0	0	0	0	9
7:00 AM	0	0	2	8	2	3	1	0	0	0	0	0	0	0	0	0	0	16
8:00 AM	0	0	0	15	10	3	0	0	0	0	0	0	0	0	0	0	0	28
9:00 AM	0	0	3	3	6	2	0	0	0	0	0	0	0	0	0	0	0	14
10:00 AM	1	1	2	9	9	0	1	0	0	0	0	0	0	0	0	0	0	23
11:00 AM	0	0	2	5	3	4	0	0	0	0	0	0	0	0	0	0	0	14
12:00 PM	0	1	2	5	14	1	1	0	0	0	0	0	0	0	0	0	0	24
1:00 PM	0	0	3	9	10	5	0	0	0	0	0	0	0	0	0	0	0	27
2:00 PM	0	0	1	13	12	3	0	0	0	0	0	0	0	0	0	0	0	29
3:00 PM	0	0	4	8	23	5	0	1	0	0	0	0	0	0	0	0	0	41
4:00 PM	0	1	3	12	18	5	0	0	0	0	0	0	0	0	0	0	0	39
5:00 PM	0	1	14	19	12	4	0	0	0	0	0	0	0	0	0	0	0	50
6:00 PM	0	0	5	13	13	3	0	0	0	0	0	0	0	0	0	0	0	34
7:00 PM	0	1	4	15	11	2	0	0	0	0	0	0	0	0	0	0	0	33
8:00 PM	0	0	4	8	13	3	0	0	0	0	0	0	0	0	0	0	0	28
9:00 PM	0	0	2	6	11	0	0	0	0	0	0	0	0	0	0	0	0	19
10:00 PM	0	1	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	19
11:00 PM	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	1	6	54	172	180	45	3	1	0	0	0	0	0	0	0	0	0	462
Percent	0.2%	1.3%	11.7%	37.2%	39.0%	9.7%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed	Summary		Speed Stat	istics	
50th Percentile (Median)	24.9	mph	Mean (Average) Speed	24.8	mph
85th Percentile	29.3	mph	10 mph Pace	19.8 - 29.8	mph
95th Percentile	31.6	mph	Percent in Pace	75.8	%

Date Range: 1/22/2019 to 1/24/2019

Site Code: D



Wednesday, January 23, 2019

Southbound Speed Range (mph) Total 0 - 10 10 - 15 15 - 20 20 - 25 25 - 30 30 - 35 35 - 40 40 - 45 45 - 50 50 - 55 55 - 60 60 - 65 65 - 70 70 - 75 75 - 80 80 - 85 85 + Time Volume 12:00 AM 1:00 AM 2:00 AM 3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM 10:00 PM 11:00 PM Total

0.0%

0.0%

0.0%

0.0%

0.0%

0.0%

Daily Percentile Speed	Summary		Speed Stat	istics	
50th Percentile (Median)	24.7	mph	Mean (Average) Speed	24.3	mph
85th Percentile	29.2	mph	10 mph Pace	20.1 - 30.1	mph
95th Percentile	31.4	mph	Percent in Pace	71.6	%

37.0%

9.4%

0.7%

0.2%

0.0%

0.2%

34.1%

Percent

0.2%

4.8%

13.2%

0.0%

Date Range: 1/22/2019 to 1/24/2019

Site Code: D



Thursday, January 24, 2019 Northbound

Speed Range (mph) Total 0 - 10 10 - 15 15 - 20 20 - 25 25 - 30 30 - 35 35 - 40 40 - 45 45 - 50 50 - 55 55 - 60 60 - 65 65 - 70 70 - 75 75 - 80 80 - 85 85 + Time Volume 12:00 AM 1:00 AM 2:00 AM 3:00 AM 4:00 AM 5:00 AM 6:00 AM 7:00 AM 8:00 AM 9:00 AM 10:00 AM 11:00 AM 12:00 PM 1:00 PM 2:00 PM 3:00 PM 4:00 PM 5:00 PM 6:00 PM 7:00 PM 8:00 PM 9:00 PM 10:00 PM 11:00 PM Total Percent 0.7% 3.2% 17.8% 40.6% 29.8% 7.1% 0.7% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%

Daily Percentile Speed	Summary		Speed Stat	istics	
50th Percentile (Median)	23.7	mph	Mean (Average) Speed	23.5	mph
85th Percentile	27.9	mph	10 mph Pace	18.3 - 28.3	mph
95th Percentile	31.1	mph	Percent in Pace	73.8	%

Date Range: 1/22/2019 to 1/24/2019

Site Code: D



Thursday, January 24, 2019 Southbound

								Spee	d Range	(mph)								Total
Time	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
12:00 AM	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	4
4:00 AM	0	0	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	6
5:00 AM	0	1	3	4	9	2	0	0	0	0	0	0	0	0	0	0	0	19
6:00 AM	0	0	4	8	6	2	1	0	0	0	0	0	0	0	0	0	0	21
7:00 AM	1	5	6	14	11	6	1	0	0	0	0	0	0	0	0	0	0	44
8:00 AM	0	0	5	6	21	2	0	0	1	0	0	0	0	0	0	0	0	35
9:00 AM	0	1	4	3	13	4	0	0	0	0	0	0	0	0	0	0	0	25
10:00 AM	0	0	4	3	6	2	0	0	0	0	0	0	0	0	0	0	0	15
11:00 AM	0	0	1	1	9	5	0	0	0	0	0	0	0	0	0	0	0	16
12:00 PM	0	0	3	8	1	2	0	0	0	0	0	0	0	0	0	0	0	14
1:00 PM	0	0	2	8	7	4	0	0	0	0	0	0	0	0	0	0	0	21
2:00 PM	1	5	6	7	9	1	1	0	0	0	0	0	0	0	0	0	0	30
3:00 PM	0	3	3	13	4	1	0	0	0	0	0	0	0	0	0	0	0	24
4:00 PM	0	2	6	5	8	3	0	0	0	0	0	0	0	0	0	0	0	24
5:00 PM	2	1	2	9	9	2	1	0	0	0	0	0	0	0	0	0	0	26
6:00 PM	0	0	3	4	8	2	0	0	0	0	0	0	0	0	0	0	0	17
7:00 PM	0	1	2	8	3	0	0	0	0	0	0	0	0	0	0	0	0	14
8:00 PM	1	0	2	5	4	1	0	0	0	0	0	0	0	0	0	0	0	13
9:00 PM	0	0	0	1	4	1	0	0	0	0	0	0	0	0	0	0	0	6
10:00 PM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	4
11:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	5	20	58	115	137	42	4	0	1	0	0	0	0	0	0	0	0	382
Percent	1.3%	5.2%	15.2%	30.1%	35.9%	11.0%	1.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed S	Summary		Speed Stat	istics	
50th Percentile (Median)	24.4	mph	Mean (Average) Speed	24.2	mph
85th Percentile	29.5	mph	10 mph Pace	20.4 - 30.4	mph
95th Percentile	31.9	mph	Percent in Pace	67.3	%

Date Range: 1/22/2019 to 1/24/2019

Site Code: D



Total Study Average Northbound

								Spee	d Range	(mph)								Total
Time	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
12:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	5
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 AM	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	5
7:00 AM	0	0	1	6	3	1	0	0	0	0	0	0	0	0	0	0	0	11
8:00 AM	0	0	3	12	9	3	1	0	0	0	0	0	0	0	0	0	0	28
9:00 AM	0	0	1	4	4	1	0	0	0	0	0	0	0	0	0	0	0	10
10:00 AM	0	0	2	9	5	0	0	0	0	0	0	0	0	0	0	0	0	16
11:00 AM	0	0	2	5	6	2	0	0	0	0	0	0	0	0	0	0	0	15
12:00 PM	0	0	2	4	8	1	1	0	0	0	0	0	0	0	0	0	0	16
1:00 PM	0	0	2	8	8	4	0	0	0	0	0	0	0	0	0	0	0	22
2:00 PM	0	1	3	15	6	2	0	0	0	0	0	0	0	0	0	0	0	27
3:00 PM	0	0	4	11	20	3	0	0	0	0	0	0	0	0	0	0	0	38
4:00 PM	0	0	6	15	14	4	0	0	0	0	0	0	0	0	0	0	0	39
5:00 PM	1	2	13	19	11	3	0	0	0	0	0	0	0	0	0	0	0	49
6:00 PM	0	1	6	15	11	3	0	0	0	0	0	0	0	0	0	0	0	36
7:00 PM	0	1	7	11	9	1	0	0	0	0	0	0	0	0	0	0	0	29
8:00 PM	1	1	9	12	9	1	0	0	0	0	0	0	0	0	0	0	0	33
9:00 PM	0	0	2	8	8	1	0	0	0	0	0	0	0	0	0	0	0	19
10:00 PM	0	0	1	6	5	0	0	0	0	0	0	0	0	0	0	0	0	12
11:00 PM	0	0	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	2	6	68	171	144	30	2	0	0	0	0	0	0	0	0	0	0	423
Percent	0.5%	1.4%	16.1%	40.4%	34.0%	7.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Spe	ed Summa	ry	Total Study Spee	d Statistics	
50th Percentile (Median)	24.2	mph	Mean (Average) Speed	24.0	mph
85th Percentile	28.4	mph	10 mph Pace	19.7 - 29.7	mph
95th Percentile	31.3	mph	Percent in Pace	73.4	%

Date Range: 1/22/2019 to 1/24/2019

Site Code: D



Total Study Average Southbound

								Spee	d Range	(mph)								Total
Time	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
12:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:00 AM	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3
4:00 AM	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	5
5:00 AM	0	1	4	6	5	1	1	0	0	0	0	0	0	0	0	0	0	18
6:00 AM	0	1	2	9	5	3	0	0	0	0	0	0	0	0	0	0	0	20
7:00 AM	1	3	5	16	14	5	1	0	0	0	0	0	0	0	0	0	0	45
8:00 AM	0	1	6	11	16	2	0	0	0	0	0	0	0	0	0	0	0	36
9:00 AM	0	1	4	5	14	1	0	0	0	0	0	0	0	0	0	0	0	25
10:00 AM	0	1	5	5	6	2	0	0	0	0	0	0	0	0	0	0	0	19
11:00 AM	0	1	2	4	6	4	0	0	0	0	0	0	0	0	0	0	0	17
12:00 PM	0	1	3	5	6	2	0	0	0	0	0	0	0	0	0	0	0	17
1:00 PM	0	0	3	6	8	3	0	0	0	0	0	0	0	0	0	0	0	20
2:00 PM	0	2	4	5	12	1	1	0	0	0	0	0	0	0	0	0	0	25
3:00 PM	0	2	3	8	9	4	0	0	0	0	0	0	1	0	0	0	0	27
4:00 PM	0	1	4	9	10	2	0	0	0	0	0	0	0	0	0	0	0	26
5:00 PM	2	3	3	10	7	2	0	0	0	0	0	0	0	0	0	0	0	27
6:00 PM	0	0	3	5	7	3	0	0	0	0	0	0	0	0	0	0	0	18
7:00 PM	0	0	3	8	4	0	0	0	0	0	0	0	0	0	0	0	0	15
8:00 PM	1	0	2	3	5	1	0	0	0	0	0	0	0	0	0	0	0	12
9:00 PM	0	0	3	3	4	2	0	1	0	0	0	0	0	0	0	0	0	13
10:00 PM	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	5
11:00 PM	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	4
Total	4	19	64	128	142	39	4	1	0	0	0	0	1	0	0	0	0	402
Percent	1.0%	4.7%	15.9%	31.8%	35.3%	9.7%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	

Note: Average only condsidered on days with 24-hours of data.

Total Study Percentile Spe	ed Summa	ry	Total Study Spee	d Statistics	
50th Percentile (Median)	24.6	mph	Mean (Average) Speed	24.3	mph
85th Percentile	29.4	mph	10 mph Pace	20.4 - 30.4	mph
95th Percentile	32.1	mph	Percent in Pace	66.7	%



Location: Graylawn Ave B/W Cordelia Ct & Bernice Dr Date Range: 1/22/2019 - 1/28/2019

Site Code: D

	1	Tuesday	/	W	ednesd	ay	Т	hursda	у		Friday	•	,	Saturda	ay		Sunda	у		Monda	у	_		
	1	/22/201	9	1	/23/201	9	1	/24/201	9	1	/25/201	19	1	1/26/20 ⁻	19	1	/27/20	19	1	/28/201	19	Mid-V	Veek A	verage
Time	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	2	1	3	1	2	3	4	3	7	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4
1:00 AM	7	3	10	1	0	1	4	0	4	-	-	-	-	-	-	-	-	-	-	-	-	4	1	5
2:00 AM	0	2	2	1	2	3	0	0	0	_	-	-	-	_	-	-	-	_	-	-	_	0	1	2
3:00 AM	1	3	4	4	3	7	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5
4:00 AM	0	3	3	1	6	7	1	6	7	-	_	_	_	_	-	_	_	-	_	_	_	1	5	6
5:00 AM	1	14	15	1	19	20	1	19	20	-	-	_	_	_	-	_	_	-	_	-	_	1	17	18
6:00 AM	4	21	25	9	20	29	5	21	26	-	-	_	-	_	-	-	-	-	-	_	_	6	21	27
7:00 AM	11	42	53	16	46	62	10	44	54	_	_	_	_	_	_	_	_	_	-	_	_	12	44	56
8:00 AM	32	39	71	28	35	63	24	35	59	-	-	-	-	-	-	-	-	-	-	-	-	28	36	64
9:00 AM	4	25	29	14	24	38	13	25	38	_	_	_	_	_	_	_	-	_	-	_	_	10	25	35
10:00 AM	17	20	37	23	21	44	13	15	28	-	_	_	_	_	-	_	_	-	_	_	_	18	19	36
11:00 AM	12	13	25	14	24	38	17	16	33	-	-	-	_	_	-	-	_	-	_	_	_	14	18	32
12:00 PM	9	16	25	24	24	48	15	14	29	-	-	-	-	-	-	-	-	-	-	-	-	16	18	34
1:00 PM	16	12	28	27	26	53	21	21	42	-	-	_	-	_	-	-	_	-	-	-	_	21	20	41
2:00 PM	24	22	46	29	21	50	29	30	59	-	-	-	-	_	-	-	-	-	-	-	_	27	24	52
3:00 PM	44	29	73	41	28	69	33	24	57	_	_	_	_	_	_	_	_	_	_	_	_	39	27	66
4:00 PM	40	29	69	39	26	65	39	24	63	-	-	_	-	_	-	-	_	-	-	_	_	39	26	66
5:00 PM	50	32	82	50	25	75	46	26	72	_	_	_	_	_	_	_	_	_	-	_	_	49	28	76
6:00 PM	43	16	59	34	20	54	33	17	50	-	_	_	_	_	-	_	_	-	_	_	_	37	18	54
7:00 PM	21	15	36	33	18	51	34	14	48	_	_	_	_	_	_	-	_	_	_	_	_	29	16	45
8:00 PM	40	17	57	28	9	37	29	13	42	_	_	_	_	_	_	_	_	_	_	_	_	32	13	45
9:00 PM	19	22	41	19	10	29	20	6	26	_	_	_	_	_	_	_	_	_	-	_	_	19	13	32
10:00 PM	9	2	11	19	6	25	9	4	13	-	-	-	-	-	-	-	-	-	-	-	-	12	4	16
11:00 PM	9	6	15	6	1	7	8	1	9	_	_	_	_	_	_	_	_	_	-	_	_	8	3	10
Total	415	404	819	462	416	878	409	382	791	-	-	-	-	-	-	-	-	-	-	-	-	429	401	829
Percent	51%	49%	-	53%	47%	-	52%	48%	-	-	-	-	-	-	-	-	-	-	-	-	-	52%	48%	-
AM Peak	08:00	07:00	08:00	08:00	07:00	08:00	08:00	07:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	08:00	07:00	
Vol.	32	42	71	28	46	63	24	44	59	-	-	-	-	-	-	-	-	-	-	-	-	28	44	64
PM Peak Vol.	17:00 50	17:00 32	17:00 82	17:00 50	15:00 28	17:00 75	17:00 46	14:00 30	17:00 72	-	-	-	-	-	-	-	-	-	-	-	-	17:00 49	17:00 28	17:00 76

^{1.} Mid-week average includes data between Tuesday and Thursday.

Project Manager: (415) 310-6469 project.manager.ca@idaxdata.com

Appendix B

March 2019 Traffic Volume Data Sheets



Location: Graylawn Ave B/W Betty Ct & Payran St Date Range: 3/12/2019 - 3/18/2019

Site Code: B

		Tuesda	у	w	ednesd	lay	Т	hursda	ıy		Friday	,		Saturda	ıy		Sunday	y		Monda	у	_		
	3	3/12/201	9	3	3/13/201	9	3	3/14/201	9	;	3/15/201	19	3	/16/201	19	3	3/17/201	19	3	3/18/201	19	Mid-V	Veek Av	/erage
Time	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	0	0	0	6	4	10	4	4	8	-	-	-	-	-	-	-	-	-	-	-	-	3	3	6
1:00 AM	1	2	3	1	1	2	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
2:00 AM	1	1	2	2	3	5	1	0	1	-	_	-	-	-	-	-	-	-	-	-	-	1	1	3
3:00 AM	0	0	0	0	1	1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
4:00 AM	0	4	4	1	5	6	0	5	5	-	-	-	-	-	-	-	-	-	-	-	-	0	5	5
5:00 AM	1	8	9	2	17	19	5	17	22	_	_	_	_	_	_	_	_	_	_	_	_	3	14	17
6:00 AM	7	38	45	4	33	37	8	33	41	_	_	_	_	_	_	_	_	_	_	_	_	6	35	41
7:00 AM	13	46	59	13	50	63	19	53	72	_	_	_	_	_	_	_	_	_	_	_	_	15	50	65
8:00 AM	32	46	78	33	43	76	35	50	85	_	_	-	-	-	_	-	-	-	-	-	-	33	46	80
9:00 AM	15	33	48	25	27	52	18	40	58	_	_	_	_	_	_	_	_	_	_	_	_	19	33	53
10:00 AM	22	19	41	12	25	37	22	34	56	_	_	_	_	_	_	_	_	_	_	_	_	19	26	45
11:00 AM	19	22	41	18	25	43	21	25	46	_	_	_	_	_	_	_	_	_	_	_	_	19	24	43
12:00 PM	38	39	77	27	24	51	33	25	58	_	_	_	_	_	_	_	_	-	-	_	-	33	29	62
1:00 PM	31	32	63	38	35	73	34	34	68	_	_	_	_	_	_	_	_	_	_	_	_	34	34	68
2:00 PM	38	34	72	36	30	66	31	33	64	_	_	_	_	_	_	_	_	_	_	_	_	35	32	67
3:00 PM	57	38	95	44	25	69	53	36	89	_	_	_										51	33	84
4:00 PM	57	35	92	60	35	95	48	36	84	_	_											55	35	90
5:00 PM	58	27	85	54	23	77	73	33	106	_	_	_	_	_	_	_	_	_		_	_	62	28	89
6:00 PM	50	25	75	46	23	69	45	34	79	_	_											47	27	74
7:00 PM	45	31	76	41	23	64	44	22	66													43	25	69
8:00 PM	30	14	44	32	14	46	32	17	49													31	15	46
9:00 PM	23	18	41	17	12	29	26	8	34													22	13	35
10:00 PM	23	17	40	14	5	19	15	9	24	-		-	-	-		-	-		-	-	-	17	10	28
11:00 PM	15	3	18	10	2	12	7	4	11	-	-	-	-	-	-	-	-	-	-	-	-	11	3	14
Total	576	532	1,108	536	485	1,021	576	554	1,130	-	-	-	-	-	-	-	-	-	-	-	-	563	524	1,086
Percent	52%	48%	-	52%	48%	-	51%	49%	-	-	-	-	-	-	-	-	-	-	-	-	-	52%	48%	-
AM Peak	08:00	07:00	08:00	08:00	07:00	08:00	08:00	07:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	08:00	07:00	08:00
Vol.	32	46	78	33	50	76	35	53	85	-	-	-	-	-	-	-	-	-	-	-	-	33	50	80
PM Peak	17:00	12:00	15:00	16:00	13:00	16:00	17:00	15:00	17:00	-	-	-	-	-	-	-	-	-	-	-	-	17:00	16:00	16:00
Vol.	58	39	95	60	35	95	73	36	106	-	-	-	-	-	-	-	-	-	-	-	-	62	35	90

^{1.} Mid-week average includes data between Tuesday and Thursday.

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