



# CSU Stanislaus Parking Study

California State University  
Stanislaus

Final Report





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## **Appendix Index**

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## **1. Introduction**

GHD (formerly Omni-Means) was retained by California State University (CSU) Stanislaus to prepare an update to the CSU Stanislaus Campus Master Plan Parking Study (Omni-Means, 2008). This update will include new utilization and capacity data, present a comparison to the 2008 parking study, and update future parking need forecasts. The goal of this analysis is to assist CSU Stanislaus in sizing and timing the provision of additional parking capacity.

## **2. Campus Parking**

This analysis has been designed to project the capability of the campus to meet the parking needs of the existing and future student enrollment along with the university support system of faculty and staff. The following steps were taken to determine these needs:

- Inventory of Current Parking Facilities
- Assess Current Parking Usage
- Estimate Future Parking Demand
- Identify Parking Demand Reduction Strategies

### **2.1 Parking**

The campus parking facilities include 14 surface parking lots located throughout the campus. These parking lots are heavily oriented to the westerly side of the campus where the majority of the classroom and administrative facilities are located. The campus map is presented in Figure 2.1.

**Figure 2.1: Campus Map**





### 2.1.1 Parking Inventory

The existing parking lots were surveyed by GHD in March 2019 to determine the utilization of the on-campus parking. Separately, CSU Stanislaus staff surveyed parking inventory on June 30, 2018 and utilization on February 25, 2019 to March 1, 2019. The types of parking stalls were broken down into the following 8 categories:

- General
- Faculty/Staff
- Handicapped (ADA)
- Service/Visitor
- State Vehicles
- Motorcycles
- Electric Vehicle
- Economy\*

*\*Economy stalls are located further from central campus destinations and allow for parking with a reduced cost economy pass.*

Table 2.1 presents the current parking capacity inventory based on info provided by CSU Stanislaus.

**Table 2.1 – Current Parking Inventory**

AVAILABLE SPACES									
Parking Lot	General	Faculty/Staff	ADA	Service/Visitor	State Vehicles	Motorcycles	Electric Vehicle	Economy	Total
Lot #1	0	0	8	17	0	0	0	0	25
Lot #2	194	36	8	2	0	4	2	103	349
Lot #3	237	32	12	0	1	0	3	0	285
Lot #4	550	0	4	2	0	4	0	0	560
Lot #5	58	180	12	6	0	0	0	0	256
Lot #6	184	50	7	0	0	0	0	0	241
Lot #7	190	0	11	0	0	3	0	113	317
Lot #8	170	41	7	2	0	2	2	109	333
Lot #9	0	0	1	7	0	0	0	0	8
Lot #10	41	0	2	1	0	0	0	0	44
Lot #11	339	52	11	14	16	4	2	0	438
Lot #11A	0	0	0	0	0	0	0	151	151
Total	1,963	391	83	51	17	17	9	476	3,007



As presented in Table 2.1, the campus provides a total of 3,007 parking spaces of all types. Two thirds of those are general stalls, which require a parking permit. Faculty and staff stalls and Economy stalls make up most of the remaining stalls, and are both restricted to parking pass holders.

Table 2.2 presents a comparison between the current capacities of each lot (see Figure 2.1), the capacity in 2008, and the capacity in 2012.

**Table 2.2 – Parking Inventory Comparison**

Parking Lot	Survey Year				
	2008	2012		2019	
	Capacity	Capacity	+/-	Capacity	+/-
Lot #1	25	25	0	25	0
Lot #2	222	235	13	349	114
Lot #3	291	260	-31	285	25
Lot #4	536	564	28	560	-4
Lot #5	284	261	-23	256	-5
Lot #6	51	241	190	241	0
Lot #7	320	318	-2	317	-1
Lot #8	331	334	3	333	-1
Lot #9	7	7	0	8	1
Lot #10	0	44	44	44	0
Lot #11	444	435	-9	438	3
Lot #11A	156	155	-1	151	-4
<b>TOTAL</b>	<b>2,667</b>	<b>2,879</b>	<b>212</b>	<b>3,007</b>	<b>128</b>

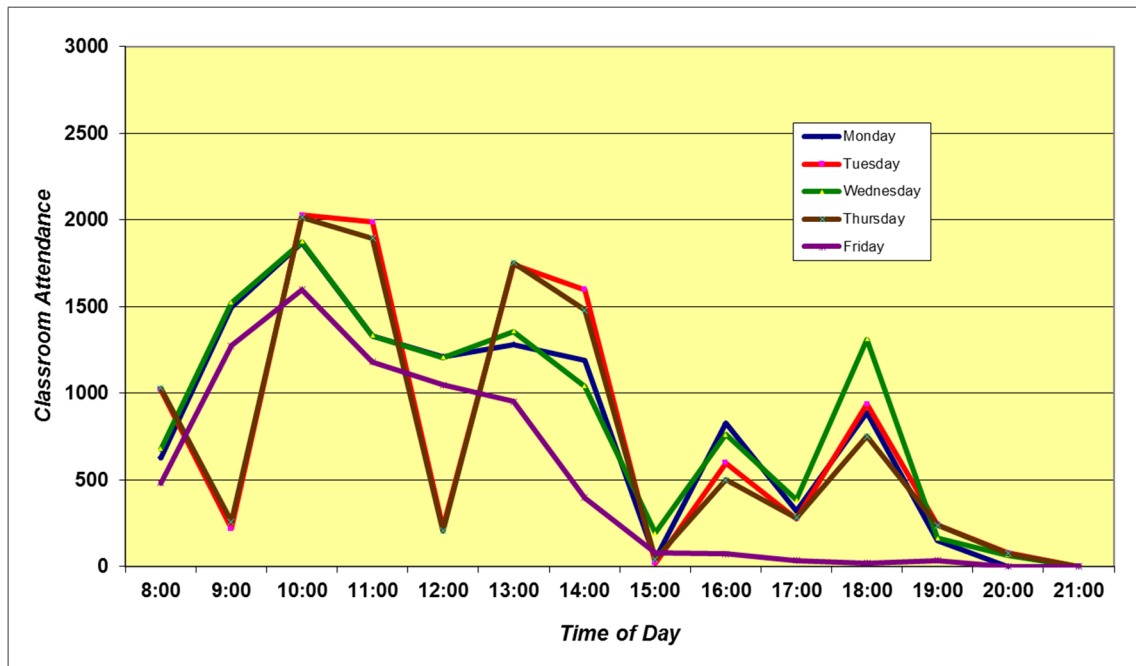
As presented in Table 2.2, a total of 212 parking spaces were added between 2008 and 2012, and an additional 128 were added after 2012. This is an overall increase of 340 spaces from the 2,667 spaces reported in the 2008 parking study. Most parking lots saw an increase in available parking spaces from 2008 to 2019. Lots 3, 5, 7, 11, and 11A show a net decrease in spaces, due to reconstruction of stalls.

In addition to the parking inventory, current campus-wide class attendance was obtained to compare to the attendance figures presented in the 2008 study. Figure 2.2 presents the previous class attendance from the original parking study. Figure 2.3 presents the updated class attendance.

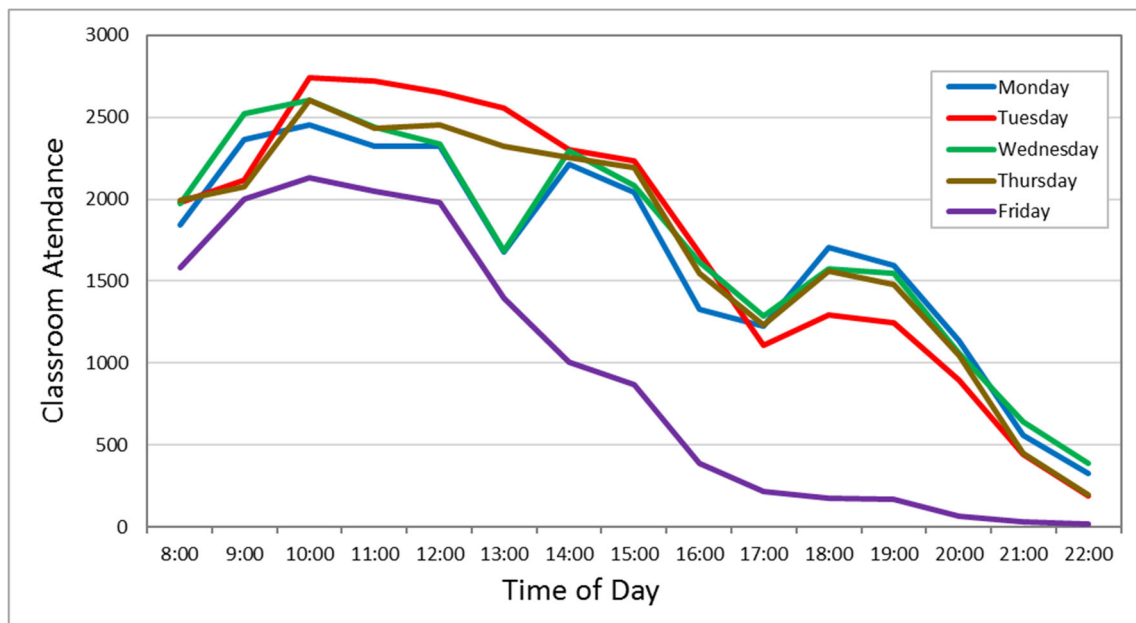




**Figure 2.2: 2008 Class Attendance by Day and Time**



**Figure 2.3: 2018 Class Attendance by Day and Time**



As presented in Tables 2.2 and 2.3, the class attendance times have shifted from the previous study, and the number of students on campus at its peak has increased beyond 2,500, whereas the 2008 peak remained at or below 2,000.



## 2.2 On-Street Parking

In addition to the parking provided on-campus there is significant parking activity along all streets surrounding the campus, excluding Christopherson Parkway. As a result, the parking along West Monte Vista Avenue, Geer Road, and Crowell Road were also included in this analysis. These streets are presented in Figure 2.4.

**Figure 2.4: On-Street Parking**



The available on-street parking is within the City of Turlock's right-of-way. Therefore, CSU Stanislaus has no control over parking use along these streets. Table 2.3 presents the on-street parking utilization.

**Table 2.3 – On-street Parking Utilization**

Street	Available	Tuesday 10 AM		Tuesday 1 PM		Wednesday 10 AM		Wednesday 1 PM	
		Occupied	% Occupied	Occupied	% Occupied	Occupied	% Occupied	Occupied	% Occupied
Geer Rd	74	64	86%	70	95%	72	97%	60	81%
Monte Vista	104	104	100%	96	92%	104	100%	102	98%
Crowell Rd	58	57	98%	58	100%	58	100%	52	90%
Off-Campus Total	236	225	95%	224	95%	234	99%	214	91%



As presented in Table 2.3, available on-street parking capacity is largely utilized during normal campus hours. If this parking were to be removed, nearby neighborhoods would likely be impacted as students seek free parking further from class. On-campus parking could also increase, depending on parking choice price sensitivity.

## 2.3 Parking Utilization

Parking utilization in 2008 was determined to peak on Tuesday, September 15, 2007 at 10 AM. The 2008 peak utilization is presented in Table 2.4.

**Table 2.4: 2008 Peak Parking Utilization**

Tuesday September 15, 2007	General	Faculty/ Staff	Total	General	Faculty/ Staff	Total	General	Faculty/ Staff	Total
	Available Spaces			Occ Spaces (10 AM)			% Occupied		
Lot #1	25	0	25	25	0	25	100%	0%	100%
Lot #2	182	40	222	180	34	214	99%	85%	96%
Lot #3	257	34	291	249	27	276	97%	79%	95%
Lot #4	536	0	536	514	0	514	96%	0%	96%
Lot #5	82	202	284	82	160	242	100%	79%	85%
Lot #6	51	0	51	35	0	35	69%	0%	69%
Lot #7	320	0	320	304	0	304	95%	0%	95%
Lot #8	291	40	331	180	37	217	62%	93%	66%
Lot #9	7	0	7	2	0	2	29%	0%	29%
Lot #11	378	66	444	285	66	351	75%	100%	79%
Lot #11A	156	0	156	32	0	32	21%	0%	21%
<b>Total</b>	<b>2,285</b>	<b>382</b>	<b>2,667</b>	<b>1,888</b>	<b>324</b>	<b>2,212</b>	<b>83%</b>	<b>85%</b>	<b>83%</b>

As presented in Table 2.4, 2008 peak parking utilization was 83% according to data collected at that time.

Current parking utilization was surveyed on Tuesday March 5<sup>th</sup>, 2019 and Wednesday, March 6<sup>th</sup>, 2019. Peak utilization was found to occur on Wednesday at 10 AM. Table 2.5 presents the 2019 peak parking utilization for the CSU Stanislaus campus.



**Table 2.5: 2019 Peak Parking Utilization**

Wednesday, March 06, 2019	General	Economy	Faculty/Staff	TOTAL	General	Economy	Faculty/Staff	TOTAL	General	Economy	Faculty/Staff	Total
Area	Available Spaces				Occupied Spaces (10 AM)				% Occupied			
Lot #1	25	-	-	25	21	-	-	21	84%	-	-	84%
Lot #2	210	103	36	349	132	51	23	206	63%	50%	64%	59%
Lot #3	253	-	32	285	256	-	9	265	101%	-	28%	93%
Lot #4	560	-	-	560	492	-	-	492	88%	-	-	88%
Lot #5	76	-	180	256	74	-	180	254	97%	-	100%	99%
Lot #6	191	-	50	241	150	-	41	191	79%	-	82%	79%
Lot #7	204	113	-	317	92	92	-	184	45%	81%	-	58%
Lot #8	183	109	41	333	171	34	41	246	93%	31%	100%	74%
Lot #9	8	-	-	8	7	-	-	7	88%	-	-	88%
Lot #10	44	-	-	44	32	-	-	32	73%	-	-	73%
Lot #11	386	-	52	438	363	-	52	415	94%	-	100%	95%
Lot #11A	-	151	-	151	-	106	-	106	-	70%	-	70%
Total	2,140	476	391	3,007	1,790	283	346	2,419	84%	59%	88%	80%

As presented in Table 2.5, 2019 peak parking utilization was observed to be 80%. Overall, the 2019 survey indicated a slight decrease in utilization relative to capacity. However, total net parking has increased on campus during the observed peak period from 2,212 to 2,419.

Based on the overall peak parking utilization, there is currently no need for a redistribution of faculty parking stalls to accommodate more general parking. However there would potentially be a benefit to relocating some of the underutilized faculty parking, primarily from lots 2 and 3, to the faculty impacted lots 5, 8, and 11.

Table 2.6 presents a comparison of net parking during the observed peak periods in 2008 and 2019.



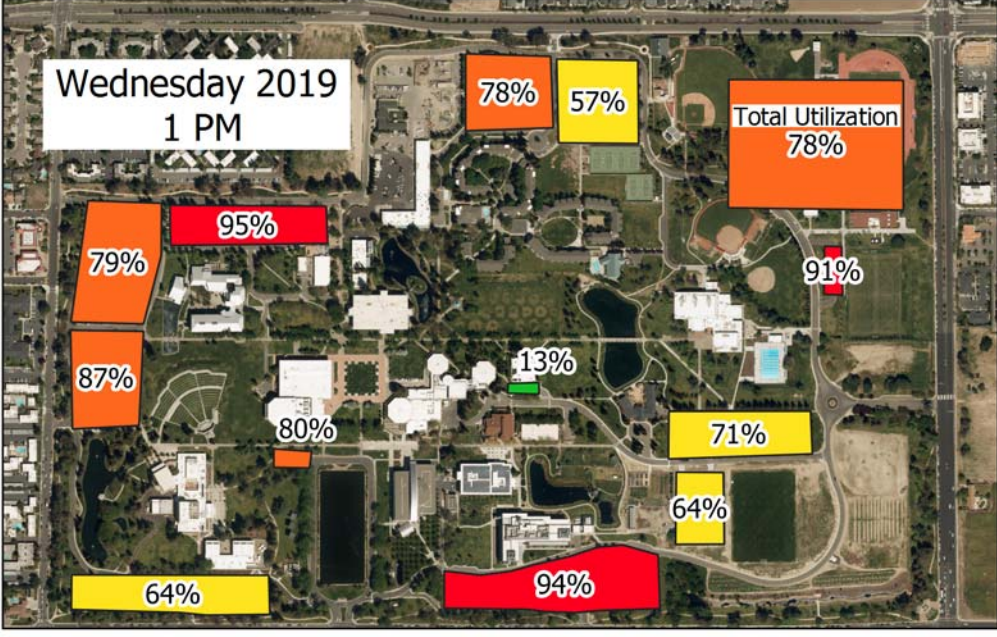
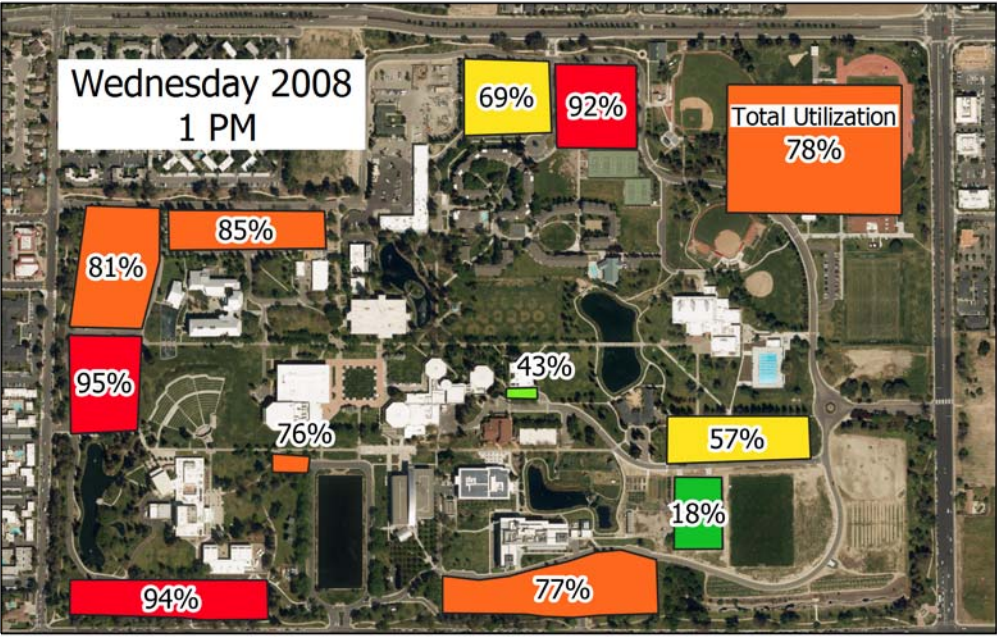
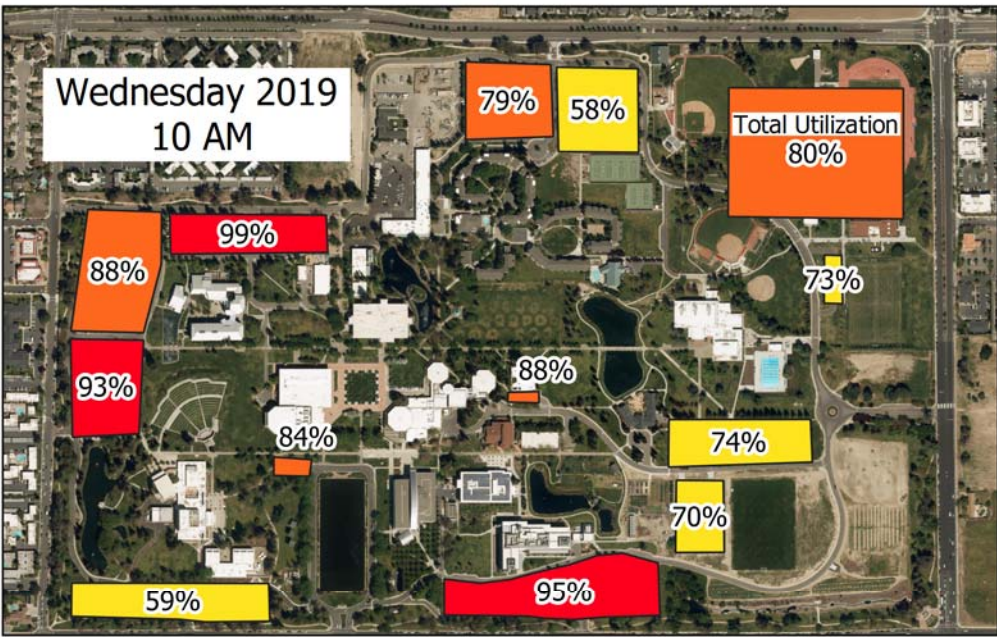
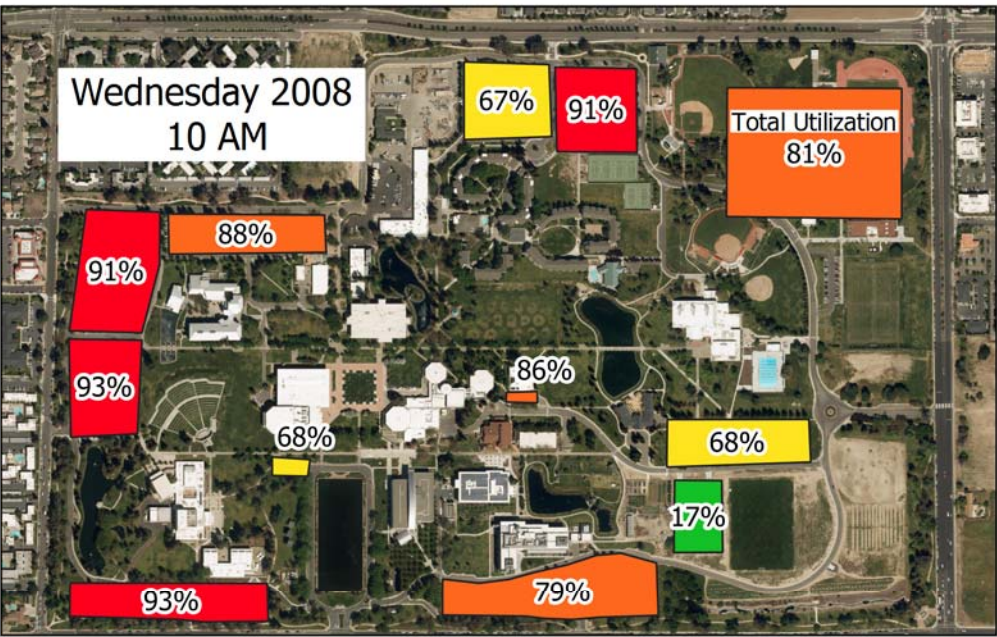
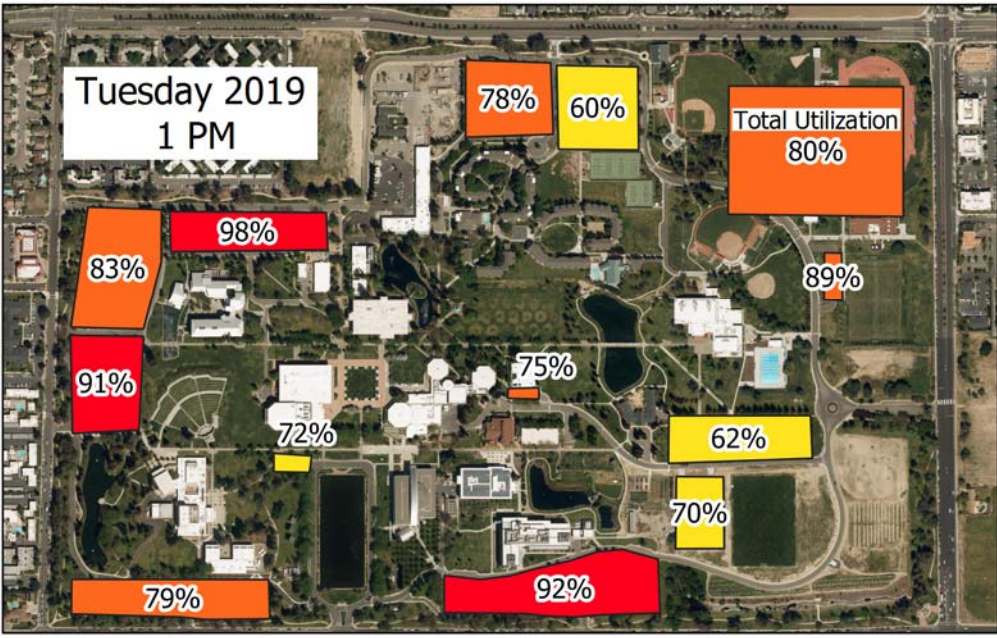
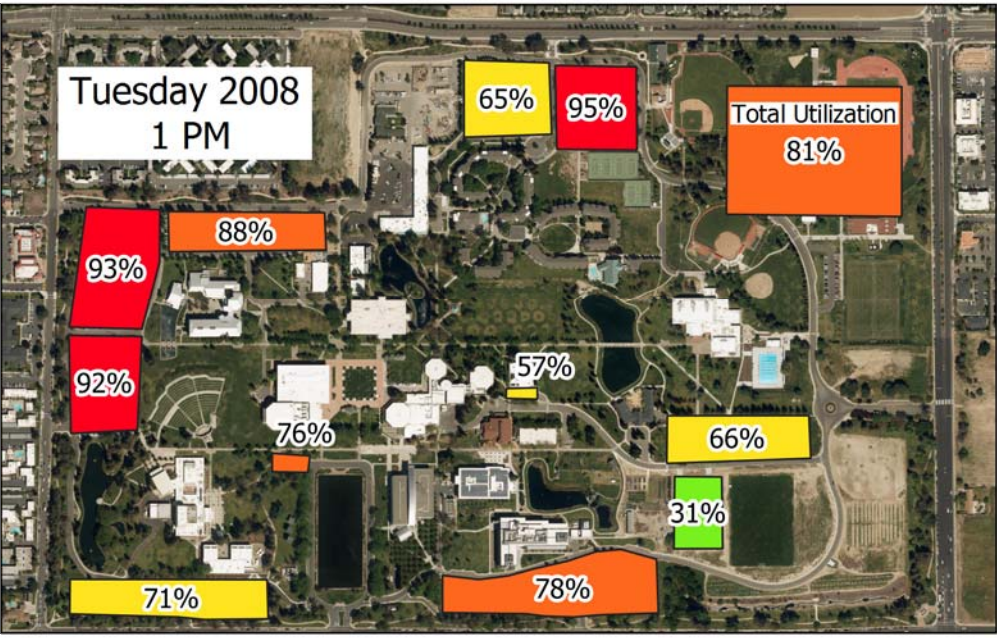
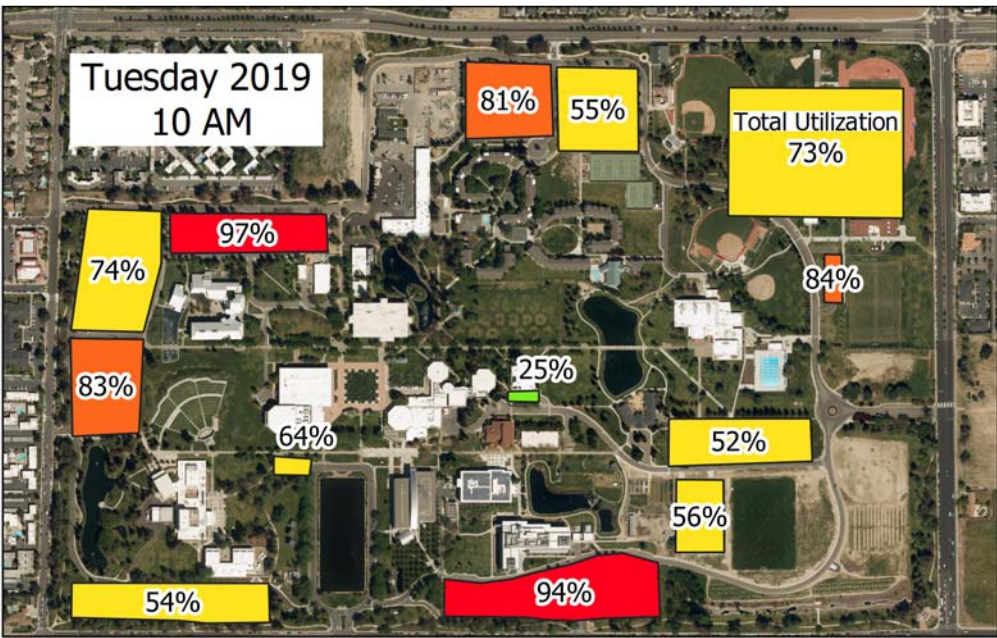
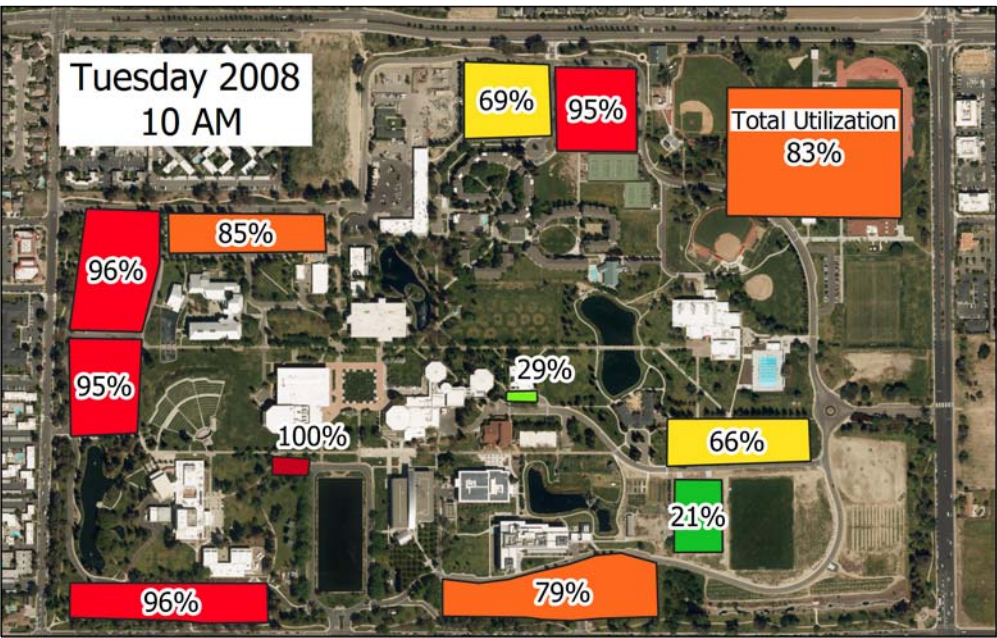
**Table 2.6: Net Peak Parking Comparison by Lot**

Parking Lot	2008			2019		
	Max Utilization	% Capacity		Max Utilization	% Capacity	
Lot #1	25	100%		21	84%	
Lot #2	214	96%		206	59%	
Lot #3	276	95%		265	93%	
Lot #4	514	96%		492	88%	
Lot #5	242	85%		254	99%	
Lot #6	35	69%		191	79%	
Lot #7	304	95%		184	58%	
Lot #8	217	66%		246	74%	
Lot #9	2	29%		7	88%	
Lot #10	-	-		32	73%	
Lot #11	351	79%		415	95%	
Lot #11A	32	21%		106	70%	
<b>TOTAL</b>	<b>2,212</b>	<b>83%</b>		<b>2,419</b>	<b>80%</b>	

As presented in Table 2.6, net parking utilization increased on campus since 2008. However, added and reconfigured parking availability has shifted utilization between lots, and resulted in a slightly lower utilization relative to capacity.

Figure 2.5 presents a comparison of 13 parking lot utilization in 2008 and 2019, by peak period, overlaid on a campus parking map.





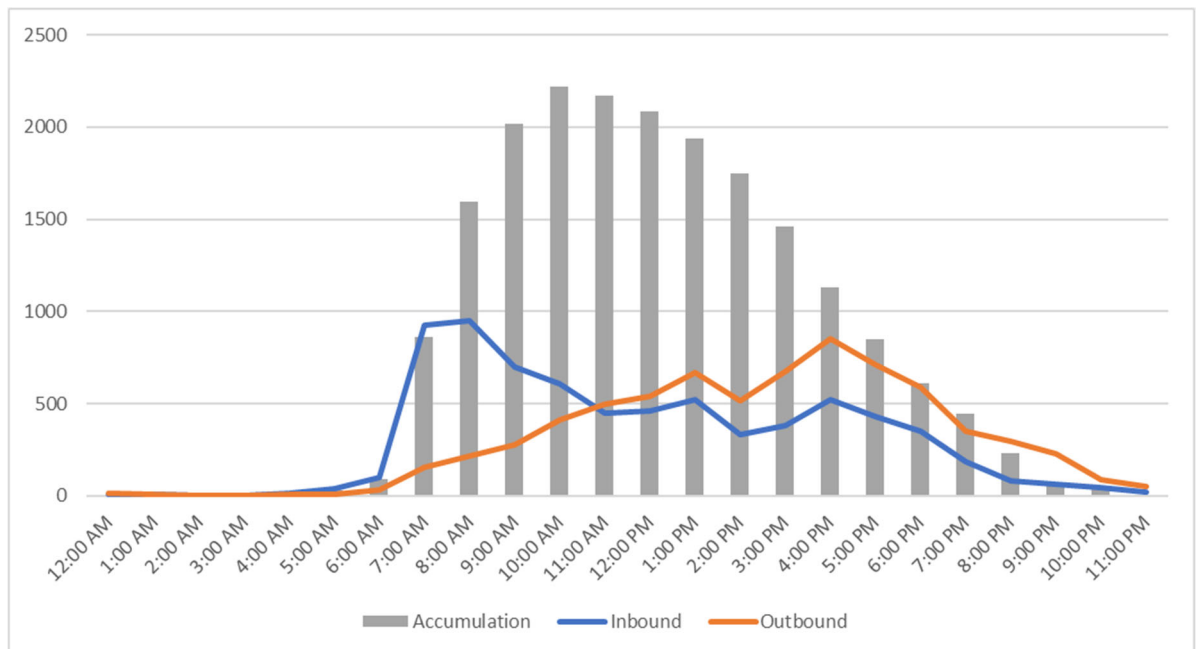




## 2.4 Driveway Usage

GHD took 48 hour driveway counts from March 5, 2019 to March 6, 2019. Driveway utilization for campus ingress and egress varied substantially based on location. The driveways at Calaveras Way, University Circle, Mariposa Drive, and Ansel Adams Boulevard have the largest entering and exiting volumes. Based on the peak hour of each driveway, the majority of vehicles enter campus early in the morning, and most leave the campus in the evening. Between all seven driveways, approximately 7,200 vehicles enter and exit the campus each day. The total number of vehicles parked during the peak period is about 33.5% of the total daily volume entering the campus. Figure 2.6 presents the overall ingress and egress of the driveways and the accumulation of vehicles on campus at each hour.

**Figure 2.6: Driveway Ingress and Egress**



## 3. Campus Enrollment

### 3.1 Enrollment Trends

The 2008 analysis assumed a 3% annual enrollment growth rate. The actual growth that occurred from 2014 to 2018 is shown in Table 3.1, and presents a comparison of the 2008 forecast to the actual enrollment figures.

**Table 3.1: Enrollment Comparison to Original Forecast**

CSU Stanislaus - Enrollment Forecasts						
Anticipated Change in Enrollment						
School Year	Original Forecast Growth			Actual Enrollment		
	FTE <sup>1</sup>	Headcount	Growth per Year	FTE <sup>1</sup>	Headcount	Growth per Year
2014	8,087	10,117	-	7,713	9,047	-
2015	8,325	10,415	2.94%	7,780	9,285	2.63%
2016	8,569	10,720	2.94%	8,240	9,765	5.17%
2017	8,821	11,035	2.94%	8,525	10,006	2.47%
<b>2018</b>	<b>9,087</b>	<b>11,368</b>	<b>3.02%</b>	<b>8,757</b>	<b>10,215</b>	<b>2.09%</b>

1. FTE is Full Time Equivalent

As presented in Table 3.1, the 2008 study anticipated less fluctuation than the actual rate. The 2008 analysis assumed a steady 3% growth rate, while the actual enrollment fluctuated, in part due to the 2008 recession. This led to lower enrollment than was forecast. The average actual growth balanced out from 2014, averaging out to the 3% growth rate that was assumed. Based on this, the 3% growth rate will continue to be applied in this analysis.

### 3.2 Current Enrollment

The 2018 student headcount was reported as 10,215 students with a full-time equivalent (FTE) of 8,757 students. Of the students that were enrolled, 4,400 bought parking passes in the preceding semester. In 2018, the total faculty was 667, while the total staff was 571.

### 3.3 Campus Growth

An annual growth of 3% was used for all forecasting, consistent with 2014-2018 observations. The faculty growth was determined to follow very closely with the headcount, staying around 11.8% of the overall headcount. Therefore it was grown in tandem with the headcount. Table 3.2 presents the updated enrollment forecasts for the CSU Stanislaus Campus.





**Table 3.2: Enrollment Forecasts**

CSU Stanislaus - Enrollment Forecasts			
Anticipated Change in Enrollment			
School Year	Updated Forecast Growth		
	FTE	Headcount	Faculty/Staff
2018	8,757	10,215	1,238
2019	8,964	10,521	1,242
2020	9,233	10,837	1,279
2021	9,510	11,162	1,318
2022	9,795	11,497	1,357
2023	10,089	11,842	1,398
2024	10,392	12,197	1,440
2025	10,704	12,563	1,483
2026	11,025	12,940	1,527
2027	11,356	13,328	1,573
<b>2028</b>	<b>11,696</b>	<b>13,728</b>	<b>1,620</b>
2029	12,047	14,140	1,669
2030	12,408	14,564	1,719
2031	12,781	15,001	1,771
2032	13,164	15,451	1,824
2033	13,559	15,915	1,879
2034	13,966	16,392	1,935
2035	14,385	16,884	1,993
2036	14,816	17,390	2,053
2037	15,261	17,912	2,114
<b>2038</b>	<b>15,719</b>	<b>18,449</b>	<b>2,178</b>

As presented in Table 3.2, the projected headcount ten years out, in 2028, is 13,728 students, and 18,449 students 20 years out, in 2038.

### 3.4 Future Parking Demand

The future parking demand was estimated based on the headcount values shown in the enrollment forecasts (Table 3.2). From these, peak parking ratios were applied by comparing the parking counts and the overall headcount and faculty/staff counts provided for 2018.

Table 3.3 presents the potential change in parking demand with the increase in full-time enrollment.



**Table 3.3: Potential Change in Parking Demand by Year**

Potential Change in Parking Demand						
School Year	Head Count	Faculty/ Staff	Peak Parking Accumulations			Potential Increase in Parking Demand
			Student	Staff	Total	
2018-19	10,215	1,238	2,073	346	2,419	
2019-20	10,521	1,242	2,135	347	2,482	63
2020-21	10,837	1,279	2,199	358	2,557	138
2021-22	11,162	1,318	2,265	368	2,633	214
2022-23	11,497	1,357	2,333	379	2,712	293
2023-24	11,842	1,398	2,403	391	2,794	375
2024-25	12,197	1,440	2,475	402	2,878	459
2025-26	12,563	1,483	2,550	414	2,964	545
2026-27	12,940	1,527	2,626	427	3,053	634
2027-28	13,328	1,573	2,705	440	3,145	726
2028-29	13,728	1,620	2,786	453	3,239	820
2029-30	14,140	1,669	2,870	466	3,336	917
2030-31	14,564	1,719	2,956	480	3,436	1,017
2031-32	15,001	1,771	3,044	495	3,539	1,120
2032-33	15,451	1,824	3,136	510	3,645	1,226
2033-34	15,915	1,879	3,230	525	3,755	1,336
2034-35	16,392	1,935	3,327	541	3,867	1,448
2035-36	16,884	1,993	3,426	557	3,983	1,564
2036-37	17,390	2,053	3,529	574	4,103	1,684
2037-38	17,912	2,114	3,635	591	4,226	1,807
2038-39	18,449	2,178	3,744	609	4,353	1,934

### 3.5 Parking Demand Reduction Strategies

The primary goal of Transportation Demand Management (TDM) is to reduce the number of individual vehicle trips made to a location, thus reducing on-site parking demand. This reduction can occur due to increased use of transit, carpooling to the same location, or walking or biking instead of driving. Beyond traditional “TDM” measures, socioeconomic and other campus demographic shifts have the potential to shift the parking per student demand curve. For example, while headcount increased by 16% between 2008 and 2018, parking use increased by only 9%.

Reductions in the number of individual vehicle trips to campus will result in proportional reductions in demand for additional parking on campus. Table 3.4 presents the potential for reduced parking demand on campus over 20 years, due to alternate transportation methods and/or other factors contributing to decreased individual vehicle trips.

**Table 3.4: Potential Effects of Parking Demand Reductions**

School Year	Net Increase Parking Demand Based on Potential TDM Reductions			
	0%	5%	10%	15%
2018-19	0			
2019-20	63	0	0	0
2020-21	138	10	0	0
2021-22	214	83	0	0
2022-23	293	158	22	0
2023-24	375	235	95	0
2024-25	459	315	171	27
2025-26	545	397	249	100
2026-27	634	481	329	176
2027-28	726	568	411	254
2028-29	820	658	496	334
2029-30	917	750	583	417
2030-31	1017	845	673	502
2031-32	1120	943	766	589
2032-33	1226	1,044	862	680
2033-34	1336	1,148	960	772
2034-35	1448	1,255	1,062	868
2035-36	1564	1,365	1,166	967
2036-37	1684	1,479	1,274	1,068
2037-38	1807	1,596	1,384	1,173

TDM= Transportation Demand Management

As presented in Table 3.4, further reductions in parking demand per student, whether achieved through TDM strategies, increases in on- or near-campus housing, or changing travel preferences, have the potential to significantly reduce future parking facility needs. These trends should be periodically monitored to recalibrate the findings of this study's analysis, and ensure capital expenditures are appropriately programmed to meet changing travel and parking demands and needs.

### 3.5.1 Available Transit

The City of Turlock is served by three public transit carriers; "Turlock Transit" operated by the City of Turlock, "THEBUS" operated by Merced County Joint Powers Authority, and the "StaRT" operated by Stanislaus County.

All three provide mobility to and within Turlock, and each transit service has at least one route that serves the campus. "Turlock Transit" provides three routes that serve the CSU Stanislaus campus. Routes 1 and 2 serve the southern portion of the campus along Monte Vista Avenue, and route 3 serves the northern portion of the campus along W. Christoffersen Parkway. "THEBUS" provides connection to the campus from Delhi, Livingston, Atwater, and Merced. "StaRT" provides three



routes that connect the CSU Stanislaus campus to nearby communities. Route 10 provides a direct connection from Modesto to Turlock, route 15 provides a connection between Modesto, Ceres, Keyes, and Turlock, and route 45E provides a connection from Patterson to Turlock.

## 4. Future Parking Needs Assessment

The Parking Demand section reports the new parking demand for each year, which can be compared to available parking inventory to determine when capacity is reached. Several changes in the parking facilities are planned for the near future, which will need to be taken into account. A new parking structure is planned to be built to accommodate increasing enrollment. The new parking structure would be built on a portion of lot 11, therefore 201 spaces would be removed during construction. Different alternatives are considered with a varying number of levels for the parking structure. The approximate number of stalls per parking structure level was estimated to be 180 based on review of other structures with similar footprints. Additionally, a new academic building is planned to be built on the temporary parking lot 11A site, after the parking structure has been built. This will remove 151 available economy spaces that will be relocated to other parts of campus.

To determine when the parking capacity would be exceeded, the demand per year was compared to the available capacity for the following capacity scenarios:

- Existing Capacity: Current conditions
- Construction (-201 stalls): removal a portion of the stalls from Lot 11 for the construction for the parking structure
- Parking Structure Options: Three different options based on the number of levels. All parking structure scenarios have 151 stalls removed for the new building at Lot 11A.
  - Option 1: 3 Level Structure (+540 stalls): Parking structure with three parking levels
  - Option 2: 4 Level Structure (+720 stalls): Parking structure with four parking levels
  - Option 3: 5 Level Structure (+900 stalls): Parking structure with five parking levels

The peak parking demand per year was determined previously in Table 3.3. Typically, 95% parking occupancy is considered maximum utilization, at which point a parking facility is considered “full”.

Table 4.1 presents the different utilization scenarios and the threshold year for when capacity is exceeded.



**Table 4.1: Percent Parking Demand to Capacity per Year**

		Existing Capacity	Construction (-201 stalls) <sup>1</sup>	New Building at Lot 11A (-151 stalls) <sup>2</sup>			
				No Build Option: No Structure Built <sup>3</sup>	Option 1: 3 Level Structure (+540 stalls) <sup>4</sup>	Option 2: 4 Level Structure (+720 stalls) <sup>4</sup>	Option 3: 5 Level Structure (+900 stalls) <sup>4</sup>
Available Stalls		3,007	2,806	2,856	3,396	3,576	3,756
Year	Demand	Percent Parking Demand to Capacity					
2018	2,419	80%	86%	85%	No Parking Structure Built		
2019	2,482	83%	88%	87%			
2020	2,557	85%	91%	90%			
2021	2,633	88%	94%	92%			
2022	2,712	90%	97%	95%	80%	76%	72%
2023	2,794	93%	100%	98%	82%	78%	74%
2024	2,878	96%	103%	101%	85%	80%	77%
2025	2,964	99%	106%	104%	87%	83%	79%
2026	3,053	102%	109%	107%	90%	85%	81%
2027	3,145	105%	112%	110%	93%	88%	84%
2028	3,239	108%	115%	113%	95%	91%	86%
2029	3,336	111%	119%	117%	98%	93%	89%
2030	3,436	114%	122%	120%	101%	96%	91%
2031	3,539	118%	126%	124%	104%	99%	94%
2032	3,645	121%	130%	128%	107%	102%	97%
2033	3,755	125%	134%	131%	111%	105%	100%
2034	3,867	129%	138%	135%	114%	108%	103%
2035	3,983	132%	142%	139%	117%	111%	106%
2036	4,103	136%	146%	144%	121%	115%	109%
2037	4,226	141%	151%	148%	124%	118%	113%
2038	4,353	145%	155%	152%	128%	122%	116%

1. Construction of the new parking structure would remove 201 parking stalls from Lot 11.

2. After the structure is constructed, a new building will be built on Lot 11A, removing 151 stalls.

3. The No Build Option is the worst case scenario where no parking structure is built, but the new building is still built on Lot 11A.

4. Each option for the parking structure will add a different number of parking stalls to the overall capacity.

As presented in Table 4.1, parking demand is anticipated to exceed capacity by the end of 2021 after construction on the parking structure has started. Therefore, the new parking structure would need to be operating by 2022 to keep utilization below the 95% threshold. Additionally, the parking structure provides adequate capacity until 2027 for Option 1 with 3 levels. An additional 2 years of capacity is provided when another level is added in Option 2, and again in Option 3. This parking utilization forecast assumes no changes in demand per student moving forward, resulting in a conservative analysis.

## Appendices

Appendix A: Parking Survey

Appendix B: Driveway Counts

## Appendix A: Parking Survey



AVAILABLE SPACES									
	General	Faculty/Staff	ADA	Service/Visitor	State Vehicles	Motorcycles	Electric Vehicle	Economy	TOTAL
Lot #1	17	-	8	-	-	-	-	-	25
Lot #2A	134	-	8	-	-	4	2	-	148
Lot #2B	97	-	-	2	-	-	-	103	202
Lot #3	258	12	12	-	1	-	3	-	286
Lot #4	520	-	4	2	-	8	-	-	534
Lot #5	-	243	12	6	-	-	-	-	261
Lot #6	184	50	7	-	-	-	-	-	241
Lot #7	191	-	5	-	-	3	-	113	312
Lot #8	168	41	8	2	-	2	2	109	332
Lot #9	-	-	1	7	-	-	-	-	8
Lot #10	-	-	-	29	-	-	-	118	147
Lot #11A	199	-	-	-	-	-	2	-	201
Lot #11B	139	65	11	15	-	3	-	-	233
Lot #12	20	21	2	-	-	-	-	-	43
TOTAL	1927	432	78	63	1	20	9	443	2973

Signs on campus have this lot labeled as 11A

Lots were reorganized to match the actual numbering convention used by CUS Stanislaus in the report

Tuesday, March 05, 2019	General	Economy	Faculty/Staff	ADA	TOTAL	General	Economy	Faculty/Staff	ADA	TOTAL	General	Economy	Faculty/Staff	ADA	TOTAL
Area	Available Spaces					Occupied Spaces (10 AM)					% Occupied				
Lot #1	17	-	-	8	25	11	-	-	5	16	65%	-	-	63%	64%
Lot #2A	140	-	-	8	148	95	-	-	0	95	68%	-	-	0%	64%
Lot #2B	99	103	-	-	202	53	41	-	-	94	54%	40%	-	-	47%
Lot #3	262	-	12	12	286	228	-	8	1	237	87%	-	67%	8%	83%
Lot #4	530	-	-	4	534	415	-	-	0	415	78%	-	-	0%	78%
Lot #5	6	-	243	12	261	1	-	240	7	248	17%	-	99%	58%	95%
Lot #6	184	-	50	7	241	153	-	42	1	196	83%	-	84%	14%	81%
Lot #7	194	113	-	5	312	96	78	-	0	174	49%	69%	-	0%	56%
Lot #8	174	109	41	8	332	106	25	41	2	174	61%	23%	100%	25%	52%
Lot #9	7	-	-	1	8	2	-	-	0	2	29%	-	-	0%	25%
Lot #10	29	118	-	-	147	14	70	-	-	84	48%	59%	-	-	57%
Lot #11A	201	-	-	-	201	199	-	-	-	199	99%	-	-	-	99%
Lot #11B	157	-	65	11	233	148	-	57	7	212	94%	-	88%	64%	91%
Lot #12	20	-	21	2	43	16	-	20	1	37	80%	-	95%	50%	86%
TOTAL	2020	443	432	78	2973	1537	214	408	24	2183	76%	48%	94%	31%	73%

**Street Parking Notes:**

Geer - 10 empty spaces  
Monte Vista - FULL  
Crowell - ~1 empty space

Tuesday, March 05, 2019	General	Economy	Faculty/Staff	ADA	TOTAL	General	Economy	Faculty/Staff	ADA	TOTAL	General	Economy	Faculty/Staff	ADA	TOTAL
Area	Available Spaces					Occupied Spaces (1 PM)					% Occupied				
Lot #1	17	-	-	8	25	14	-	-	4	18	82%	-	-	50%	72%
Lot #2A	140	-	-	8	148	124	-	-	1	125	89%	-	-	13%	84%
Lot #2B	99	103	-	-	202	87	64	-	-	151	88%	62%	-	-	75%
Lot #3	262	-	12	12	286	246	-	11	2	259	94%	-	92%	17%	91%
Lot #4	530	-	-	4	534	464	-	-	3	467	88%	-	-	75%	87%
Lot #5	6	-	243	12	261	4	-	236	10	250	67%	-	97%	83%	96%
Lot #6	184	-	50	7	241	152	-	36	1	189	83%	-	72%	14%	78%
Lot #7	194	113	-	5	312	102	87	-	0	189	53%	77%	-	0%	61%
Lot #8	174	109	41	8	332	140	31	36	0	207	80%	28%	88%	0%	62%
Lot #9	7	-	-	1	8	5	-	-	1	6	71%	-	-	100%	75%
Lot #10	29	118	-	-	147	12	94	-	-	106	41%	80%	-	-	72%
Lot #11A	201	-	-	-	201	186	-	-	-	186	93%	-	-	-	93%
Lot #11B	157	-	65	11	233	150	-	60	8	218	96%	-	92%	73%	94%
Lot #12	20	-	21	2	43	20	-	18	1	39	100%	-	86%	50%	91%
TOTAL	2020	443	432	78	2973	1706	276	397	31	2410	84%	62%	92%	40%	81%

**Street Parking Notes:**

Geer - 4 empty spaces  
Monte Vista - 8 empty spaces  
Crowell - FULL

Wednesday, March 06, 2019	General	Economy	Faculty/Staff	ADA	TOTAL	General	Economy	Faculty/Staff	ADA	TOTAL	General	Economy	Faculty/Staff	ADA	TOTAL
Area	Available Spaces					Occupied Spaces (10 AM)					% Occupied				
Lot #1	17	-	-	8	25	17	-	-	4	21	100%	-	-	50%	84%
Lot #2A	140	-	-	8	148	104	-	-	0	104	74%	-	-	0%	70%
Lot #2B	99	103	-	-	202	51	51	-	-	102	52%	50%	-	-	50%
Lot #3	262	-	12	12	286	255	-	9	1	265	97%	-	75%	8%	93%
Lot #4	530	-	-	4	534	490	-	-	2	492	92%	-	-	50%	92%
Lot #5	6	-	243	12	261	3	-	243	8	254	50%	-	100%	67%	97%
Lot #6	184	-	50	7	241	150	-	41	0	191	82%	-	82%	0%	79%
Lot #7	194	113	-	5	312	91	92	-	0	183	47%	81%	-	0%	59%
Lot #8	174	109	41	8	332	171	34	41	0	246	98%	31%	100%	0%	74%
Lot #9	7	-	-	1	8	7	-	-	1	8	100%	-	-	100%	100%
Lot #10	29	118	-	-	147	9	97	-	-	106	31%	82%	-	-	72%
Lot #11A	201	-	-	-	201	197	-	-	-	197	98%	-	-	-	98%
Lot #11B	157	-	65	11	233	150	-	60	8	218	96%	-	92%	73%	94%
Lot #12	20	-	21	2	43	16	-	15	1	32	80%	-	71%	50%	74%
TOTAL	2020	443	432	78	2973	1711	274	409	25	2419	85%	62%	95%	32%	81%

**Street Parking Notes:**

Geer - 2 empty spaces  
Monte Vista - FULL  
Crowell - FULL

Wednesday, March 06, 2019	General	Economy	Faculty/Staff	ADA	TOTAL	General	Economy	Faculty/Staff	ADA	TOTAL	General	Economy	Faculty/Staff	ADA	TOTAL
Area	Available Spaces					Occupied Spaces (1 PM)					% Occupied				
Lot #1	17	-	-	8	25	16	-	-	4	20	94%	-	-	50%	80%
Lot #2A	140	-	-	8	148	92	-	-	0	92	66%	-	-	0%	62%
Lot #2B	99	103	-	-	202	69	62	-	-	131	70%	60%	-	-	65%
Lot #3	262	-	12	12	286	238	-	10	1	249	91%	-	83%	8%	87%
Lot #4	530	-	-	4	534	439	-	-	1	440	83%	-	-	25%	82%
Lot #5	6	-	243	12	261	4	-	230	10	244	67%	-	95%	83%	93%
Lot #6	184	-	50	7	241	148	-	41	0	189	80%	-	82%	0%	78%
Lot #7	194	113	-	5	312	92	90	-	0	182	47%	80%	-	0%	58%
Lot #8	174	109	41	8	332	171	34	32	0	237	98%	31%	78%	0%	71%
Lot #9	7	-	-	1	8	0	-	-	1	1	0%	-	-	100%	13%
Lot #10	29	118	-	-	147	8	88	-	-	96	28%	75%	-	-	65%
Lot #11A	201	-	-	-	201	194	-	-	-	194	97%	-	-	-	97%
Lot #11B	157	-	65	11	233	148	-	59	10	217	94%	-	91%	91%	93%
Lot #12	20	-	21	2	43	19	-	20	1	40	95%	-	95%	50%	93%
TOTAL	2020	443	432	78	2973	1638	274	392	28	2332	81%	62%	91%	36%	78%

**Street Parking Notes:**

Geer - 14 empty spaces  
Monte Vista - 2 empty spaces  
Crowell - ~6 empty spaces

## Appendix B: Driveway Counts



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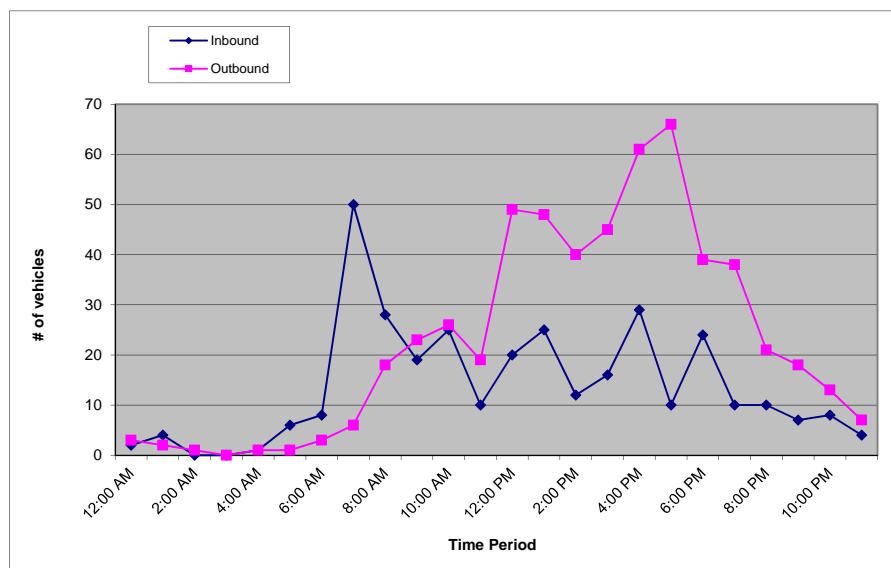
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Village Circle **LATITUDE** 37.5290566  
**COUNTY** Stanislaus **LONGITUDE** -120.854896  
**COLLECTION DATE** Tuesday, March 05, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	1	0	1	2	1	1	0	1	3	5
1:00 AM	1	2	0	1	4	1	1	0	0	2	6
2:00 AM	0	0	0	0	0	1	0	0	0	1	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	0	0	1	0	0	0	1	1	2
5:00 AM	1	0	2	3	6	0	0	0	1	1	7
6:00 AM	2	0	4	2	8	1	0	1	1	3	11
7:00 AM	4	6	19	21	50	2	1	1	2	6	56
8:00 AM	12	2	9	5	28	4	3	5	6	18	46
9:00 AM	6	7	2	4	19	2	13	6	2	23	42
10:00 AM	3	6	7	9	25	4	3	5	14	26	51
11:00 AM	2	3	1	4	10	2	7	4	6	19	29
12:00 PM	4	9	4	3	20	7	27	8	7	49	69
1:00 PM	5	5	7	8	25	9	5	11	23	48	73
2:00 PM	2	2	4	4	12	8	5	1	26	40	52
3:00 PM	7	3	3	3	16	15	17	5	8	45	61
4:00 PM	5	1	10	13	29	16	5	15	25	61	90
5:00 PM	1	2	3	4	10	34	10	13	9	66	76
6:00 PM	6	1	8	9	24	8	15	10	6	39	63
7:00 PM	3	2	4	1	10	16	12	5	5	38	48
8:00 PM	2	1	4	3	10	6	6	3	6	21	31
9:00 PM	2	2	0	3	7	8	5	5	0	18	25
10:00 PM	1	3	0	4	8	3	3	5	2	13	21
11:00 PM	1	2	0	1	4	2	1	1	3	7	11
Total	37.4%				328	62.6%				548	
	876										

**AM%** 29.2% **AM Peak** 66 **7:15 am to 8:15 am** **AM P.H.F.** 0.72  
**PM%** 70.8% **PM Peak** 110 **4:30 pm to 5:30 pm** **PM P.H.F.** 0.72







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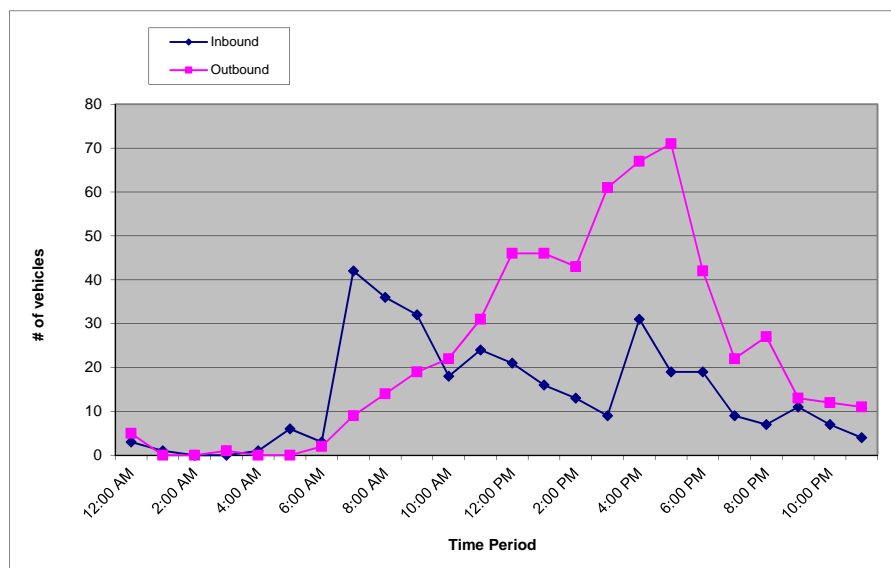
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Village Circle **LATITUDE** 37.5290566  
**COUNTY** Stanislaus **LONGITUDE** -120.854896  
**COLLECTION DATE** Wednesday, March 06, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	1	1	0	3	3	1	0	1	5	8
1:00 AM	0	0	0	1	1	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	1	0	0	0	1	1
4:00 AM	0	0	1	0	1	0	0	0	0	0	1
5:00 AM	1	1	4	0	6	0	0	0	0	0	6
6:00 AM	0	1	0	2	3	0	2	0	0	2	5
7:00 AM	3	9	13	17	42	0	2	5	2	9	51
8:00 AM	11	4	11	10	36	4	1	2	7	14	50
9:00 AM	5	5	9	13	32	5	3	5	6	19	51
10:00 AM	2	3	5	8	18	6	0	3	13	22	40
11:00 AM	4	4	6	10	24	7	8	3	13	31	55
12:00 PM	4	4	5	8	21	10	14	5	17	46	67
1:00 PM	3	4	3	6	16	10	9	9	18	46	62
2:00 PM	4	5	1	3	13	13	14	4	12	43	56
3:00 PM	2	2	1	4	9	20	21	8	12	61	70
4:00 PM	6	4	10	11	31	22	15	11	19	67	98
5:00 PM	6	2	3	8	19	26	19	12	14	71	90
6:00 PM	2	5	8	4	19	10	13	7	12	42	61
7:00 PM	5	1	1	2	9	6	8	4	4	22	31
8:00 PM	2	2	0	3	7	5	10	6	6	27	34
9:00 PM	5	2	2	2	11	5	1	2	5	13	24
10:00 PM	1	1	3	2	7	3	1	6	2	12	19
11:00 PM	1	2	1	0	4	4	2	3	2	11	15
Total	37.1%				332	62.9%				564	
	896										

AM% 30.0% AM Peak 55 11:00 am to 12:00 pm AM P.H.F. 0.60  
 PM% 70.0% PM Peak 104 4:30 pm to 5:30 pm PM P.H.F. 0.81





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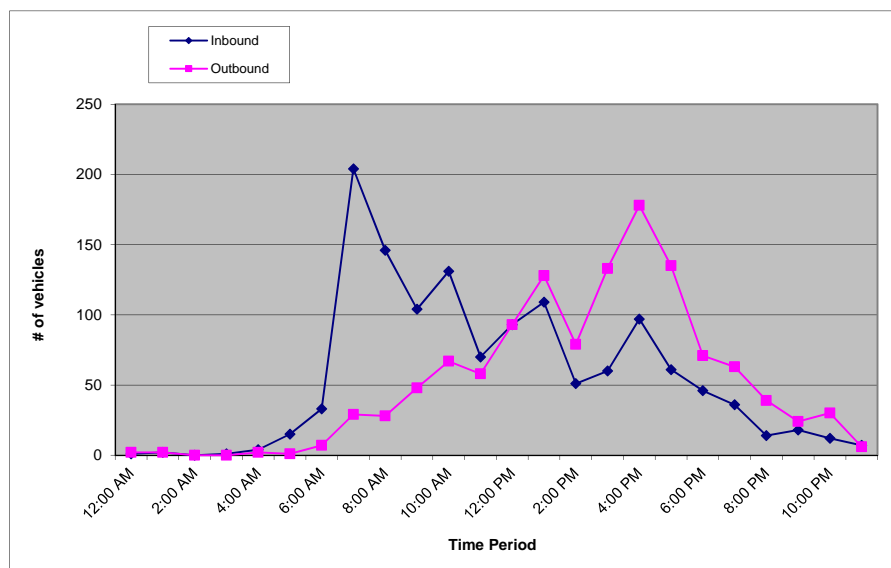
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Calaveras Way **LATITUDE** 37.5247053  
**COUNTY** Stanislaus **LONGITUDE** -120.8501352  
**COLLECTION DATE** Tuesday, March 05, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	1	0	1	1	1	0	0	2	3
1:00 AM	1	0	0	1	2	0	0	2	0	2	4
2:00 AM	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	1	0	1	0	0	0	0	0	1
4:00 AM	1	0	1	2	4	1	0	1	0	2	6
5:00 AM	1	1	5	8	15	0	0	0	1	1	16
6:00 AM	10	8	9	6	33	1	1	2	3	7	40
7:00 AM	8	29	63	104	204	14	3	3	9	29	233
8:00 AM	44	31	30	41	146	8	3	5	12	28	174
9:00 AM	38	43	15	8	104	15	13	8	12	48	152
10:00 AM	17	28	37	49	131	10	12	11	34	67	198
11:00 AM	16	9	17	28	70	17	12	11	18	58	128
12:00 PM	25	32	17	19	93	35	31	12	15	93	186
1:00 PM	26	25	30	28	109	12	24	33	59	128	237
2:00 PM	14	10	13	14	51	22	15	19	23	79	130
3:00 PM	19	14	13	14	60	31	50	27	25	133	193
4:00 PM	19	18	28	32	97	43	22	42	71	178	275
5:00 PM	17	13	19	12	61	54	38	23	20	135	196
6:00 PM	14	8	7	17	46	20	13	15	23	71	117
7:00 PM	17	7	7	5	36	25	11	4	23	63	99
8:00 PM	2	4	4	4	14	11	8	14	6	39	53
9:00 PM	6	3	4	5	18	6	7	6	5	24	42
10:00 PM	4	3	2	3	12	13	7	4	6	30	42
11:00 PM	3	1	1	2	7	4	1	1	0	6	13
Total	51.8%				1315	48.2%				1223	
	2538										

**AM%** 37.6% **AM Peak** 265 **7:30 am to 8:30 am** **AM P.H.F.** 0.59  
**PM%** 62.4% **PM Peak** 295 **4:30 pm to 5:30 pm** **PM P.H.F.** 0.72





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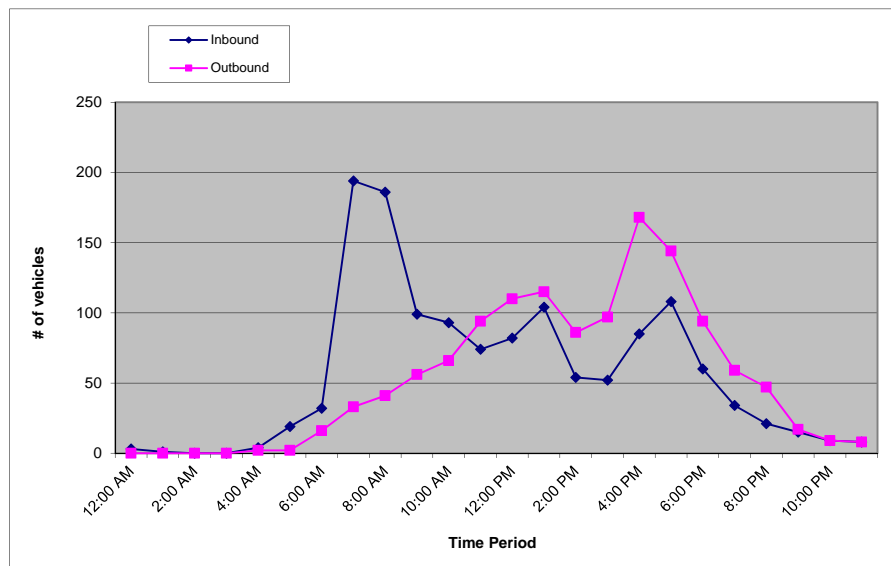
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Calaveras Way **LATITUDE** 37.5247053  
**COUNTY** Stanislaus **LONGITUDE** -120.8501352  
**COLLECTION DATE** Wednesday, March 06, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	2	0	1	3	0	0	0	0	0	3
1:00 AM	0	1	0	0	1	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	3	1	0	4	0	1	0	1	2	6
5:00 AM	0	3	9	7	19	0	1	1	0	2	21
6:00 AM	3	6	13	10	32	1	7	4	4	16	48
7:00 AM	8	19	82	85	194	6	7	9	11	33	227
8:00 AM	28	38	47	73	186	4	5	7	25	41	227
9:00 AM	18	14	18	49	99	12	8	10	26	56	155
10:00 AM	21	18	16	38	93	13	11	9	33	66	159
11:00 AM	10	15	27	22	74	15	11	22	46	94	168
12:00 PM	15	15	28	24	82	38	13	25	34	110	192
1:00 PM	28	20	23	33	104	34	21	15	45	115	219
2:00 PM	12	14	10	18	54	32	21	11	22	86	140
3:00 PM	10	17	11	14	52	25	21	24	27	97	149
4:00 PM	13	12	18	42	85	29	29	39	71	168	253
5:00 PM	37	29	29	13	108	69	28	24	23	144	252
6:00 PM	14	18	16	12	60	27	22	21	24	94	154
7:00 PM	18	4	6	6	34	23	15	13	8	59	93
8:00 PM	6	3	5	7	21	17	10	13	7	47	68
9:00 PM	7	5	2	1	15	6	4	3	4	17	32
10:00 PM	3	1	5	0	9	4	1	2	2	9	18
11:00 PM	5	1	2	0	8	5	1	0	2	8	16
Total	51.4%				1337	48.6%				1264	
	2601										

**AM%** 39.0% **AM Peak** 262 **7:30 am to 8:30 am** **AM P.H.F.** 0.68  
**PM%** 61.0% **PM Peak** 333 **4:30 pm to 5:30 pm** **PM P.H.F.** 0.74





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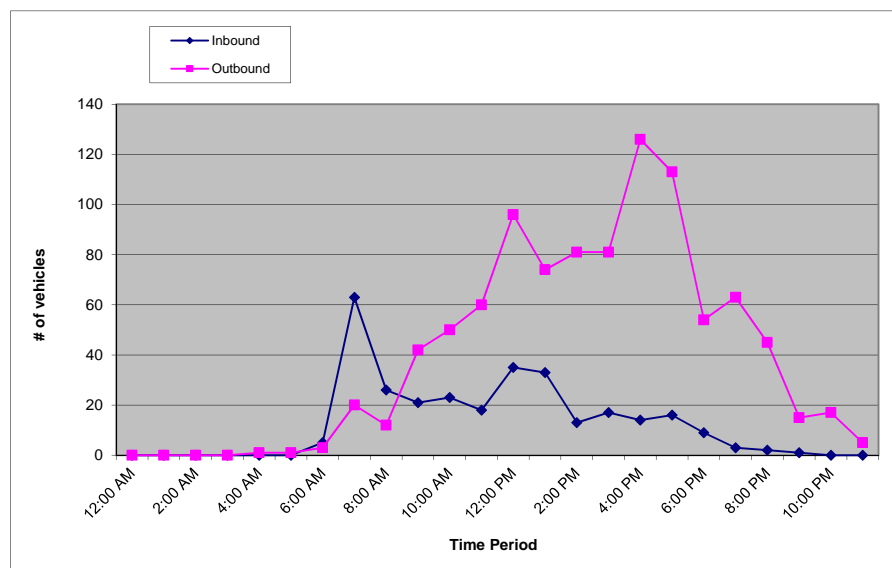
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Andre Lane  
**COUNTY** Stanislaus  
**COLLECTION DATE** Tuesday, March 05, 2019  
**NUMBER OF LANES** 4  
**LATITUDE** 37.5223827  
**LONGITUDE** -120.8544627  
**WEATHER** Clear

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	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
3:00 AM	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	1	0	1	1
5:00 AM	0	0	0	0	0	1	0	0	0	1	1
6:00 AM	0	2	0	3	5	2	1	0	0	3	8
7:00 AM	7	7	25	24	63	6	4	6	4	20	83
8:00 AM	7	5	7	7	26	1	2	4	5	12	38
9:00 AM	8	6	3	4	21	7	14	12	9	42	63
10:00 AM	3	5	9	6	23	2	6	14	28	50	73
11:00 AM	2	4	7	5	18	20	9	11	20	60	78
12:00 PM	9	12	6	8	35	23	45	14	14	96	131
1:00 PM	9	3	13	8	33	8	10	24	32	74	107
2:00 PM	7	4	1	1	13	19	17	17	28	81	94
3:00 PM	5	5	3	4	17	27	19	18	17	81	98
4:00 PM	3	1	3	7	14	25	21	32	48	126	140
5:00 PM	5	2	5	4	16	48	26	21	18	113	129
6:00 PM	1	0	2	6	9	14	16	11	13	54	63
7:00 PM	1	0	2	0	3	17	8	12	26	63	66
8:00 PM	0	1	1	0	2	18	4	11	12	45	47
9:00 PM	1	0	0	0	1	6	5	2	2	15	16
10:00 PM	0	0	0	0	0	11	2	1	3	17	17
11:00 PM	0	0	0	0	0	2	1	1	1	5	5
Total	23.8%				299	76.2%				959	
	1258										

AM% 27.4% AM Peak 83 7:00 am to 8:00 am AM P.H.F. 0.67  
 PM% 72.6% PM Peak 171 4:30 pm to 5:30 pm PM P.H.F. 0.78





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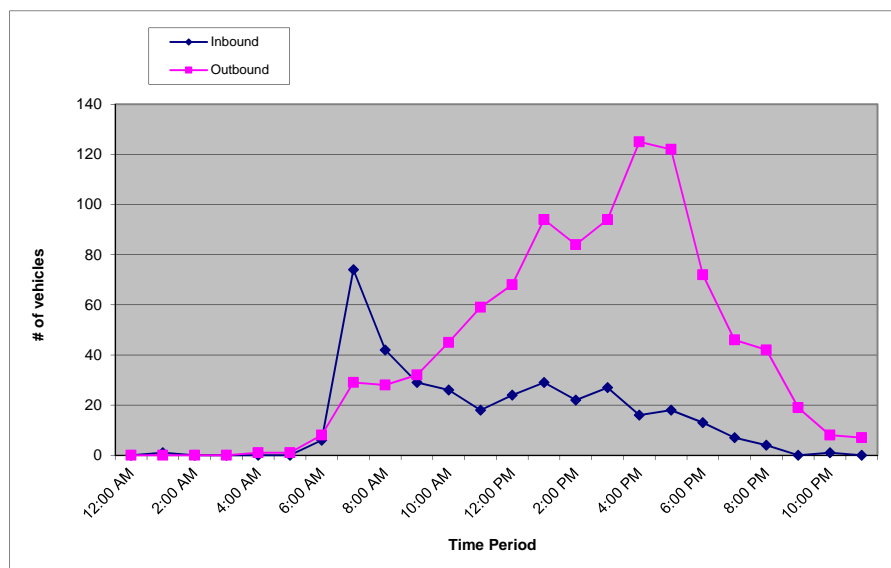
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Andre Lane **LATITUDE** 37.5223827  
**COUNTY** Stanislaus **LONGITUDE** -120.8544627  
**COLLECTION DATE** Wednesday, March 06, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 4

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	1	0	0	1	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	1	0	1	1
5:00 AM	0	0	0	0	0	1	0	0	0	1	1
6:00 AM	0	2	2	2	6	2	4	1	1	8	14
7:00 AM	5	9	28	32	74	5	8	4	12	29	103
8:00 AM	9	9	8	16	42	5	0	2	21	28	70
9:00 AM	11	5	4	9	29	9	2	5	16	32	61
10:00 AM	8	4	8	6	26	13	3	5	24	45	71
11:00 AM	1	5	5	7	18	16	5	11	27	59	77
12:00 PM	4	3	9	8	24	23	5	14	26	68	92
1:00 PM	5	9	8	7	29	19	23	13	39	94	123
2:00 PM	8	3	7	4	22	27	16	18	23	84	106
3:00 PM	5	6	8	8	27	22	28	16	28	94	121
4:00 PM	4	3	3	6	16	29	24	27	45	125	141
5:00 PM	4	4	5	5	18	52	32	15	23	122	140
6:00 PM	5	1	4	3	13	20	25	6	21	72	85
7:00 PM	0	3	1	3	7	14	10	9	13	46	53
8:00 PM	0	1	1	2	4	14	17	4	7	42	46
9:00 PM	0	0	0	0	0	2	3	2	12	19	19
10:00 PM	0	1	0	0	1	5	2	0	1	8	9
11:00 PM	0	0	0	0	0	2	3	0	2	7	7
Total	26.6%				357	73.4%				984	
	1341										

AM% 29.8% AM Peak 107 7:15 am to 8:15 am AM P.H.F. 0.61  
 PM% 70.2% PM Peak 173 4:30 pm to 5:30 pm PM P.H.F. 0.77





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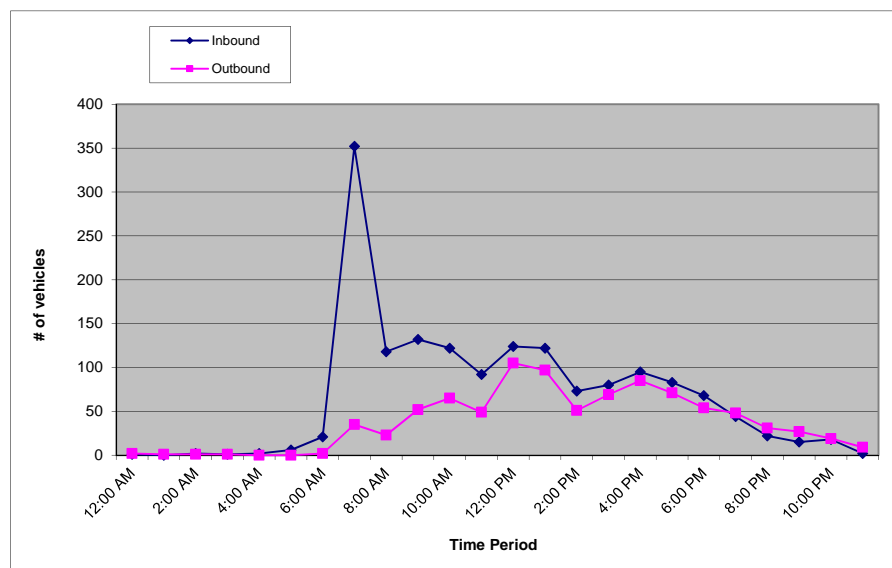
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** University Cir  
**COUNTY** Stanislaus  
**COLLECTION DATE** Tuesday, March 05, 2019  
**NUMBER OF LANES** 2 Inbound / 3 Outbound  
**LATITUDE** 37.5221719  
**LONGITUDE** -120.8581017  
**WEATHER** Clear

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	0	0	0	1	1	0	0	1	2	3
1:00 AM	0	0	0	0	0	0	1	0	0	1	1
2:00 AM	0	0	0	2	2	0	0	0	1	1	3
3:00 AM	0	0	1	0	1	1	0	0	0	1	2
4:00 AM	0	0	1	1	2	0	0	0	0	0	2
5:00 AM	2	0	2	2	6	0	0	0	0	0	6
6:00 AM	5	4	4	8	21	0	1	0	1	2	23
7:00 AM	1	227	48	76	352	3	8	10	14	35	387
8:00 AM	25	21	32	40	118	12	4	3	4	23	141
9:00 AM	44	50	20	18	132	7	28	8	9	52	184
10:00 AM	14	28	41	39	122	9	9	17	30	65	187
11:00 AM	23	16	24	29	92	21	8	7	13	49	141
12:00 PM	38	35	25	26	124	23	40	25	17	105	229
1:00 PM	18	27	37	40	122	10	12	24	51	97	219
2:00 PM	25	16	15	17	73	18	9	11	13	51	124
3:00 PM	15	18	19	28	80	10	14	21	24	69	149
4:00 PM	16	20	26	33	95	14	13	18	40	85	180
5:00 PM	27	21	16	19	83	24	22	11	14	71	154
6:00 PM	17	22	12	17	68	12	10	16	16	54	122
7:00 PM	14	13	9	8	44	15	11	12	10	48	92
8:00 PM	5	4	7	6	22	11	9	4	7	31	53
9:00 PM	4	7	2	2	15	11	9	4	3	27	42
10:00 PM	8	6	1	3	18	4	3	6	6	19	37
11:00 PM	0	0	0	2	2	3	1	2	3	9	11
Total	64.0%				1595	36.0%				897	
	2492										

AM% 43.3% AM Peak 420 7:15 am to 8:15 am AM P.H.F. 0.45  
 PM% 56.7% PM Peak 229 12:00 pm to 1:00 pm PM P.H.F. 0.76





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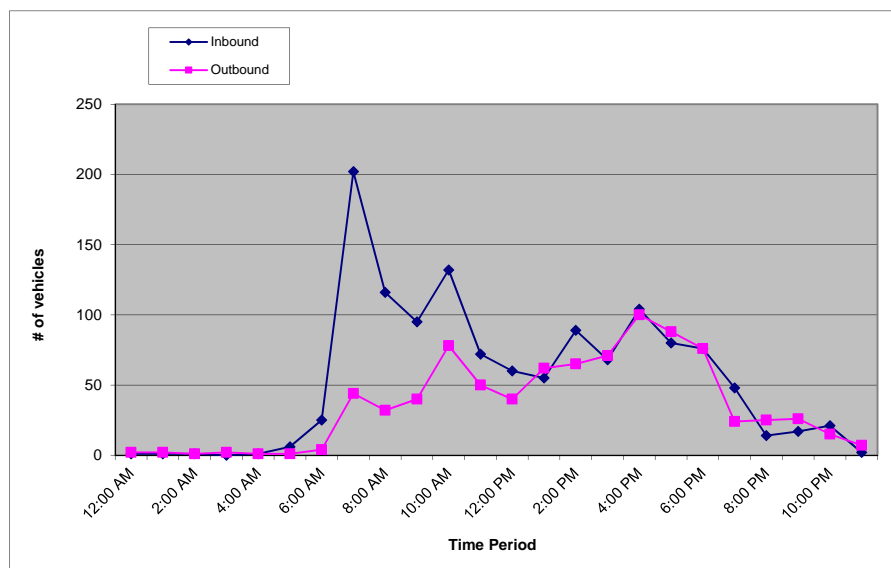
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** University Cir **LATITUDE** 37.5221719  
**COUNTY** Stanislaus **LONGITUDE** -120.8581017  
**COLLECTION DATE** Wednesday, March 06, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2 Inbound / 3 Outbound

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	1	1	2	0	0	0	2	3
1:00 AM	0	1	0	0	1	0	1	0	1	2	3
2:00 AM	0	0	1	0	1	0	0	0	1	1	2
3:00 AM	0	0	0	0	0	0	2	0	0	2	2
4:00 AM	0	0	1	0	1	1	0	0	0	1	2
5:00 AM	1	0	3	2	6	0	0	0	1	1	7
6:00 AM	4	3	6	12	25	1	0	1	2	4	29
7:00 AM	19	39	67	77	202	4	6	15	19	44	246
8:00 AM	28	29	28	31	116	6	7	9	10	32	148
9:00 AM	19	25	23	28	95	16	6	7	11	40	135
10:00 AM	27	35	37	33	132	8	25	22	23	78	210
11:00 AM	15	19	21	17	72	10	14	12	14	50	122
12:00 PM	12	17	14	17	60	17	6	9	8	40	100
1:00 PM	15	11	17	12	55	26	10	9	17	62	117
2:00 PM	20	22	24	23	89	21	18	17	9	65	154
3:00 PM	19	17	18	14	68	24	22	14	11	71	139
4:00 PM	34	20	22	28	104	28	28	17	27	100	204
5:00 PM	21	23	19	17	80	28	24	17	19	88	168
6:00 PM	18	15	17	26	76	19	22	21	14	76	152
7:00 PM	13	17	10	8	48	4	1	12	7	24	72
8:00 PM	5	1	6	2	14	6	4	7	8	25	39
9:00 PM	4	2	1	10	17	5	7	3	11	26	43
10:00 PM	13	2	4	2	21	2	5	5	3	15	36
11:00 PM	1	0	1	0	2	3	2	1	1	7	9
Total	60.0%				1286	40.0%				856	
	2142										

AM% 42.4% AM Peak 257 7:15 am to 8:15 am AM P.H.F. 0.67  
 PM% 57.6% PM Peak 204 4:00 pm to 5:00 pm PM P.H.F. 0.82







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# 24 Hour Count Report

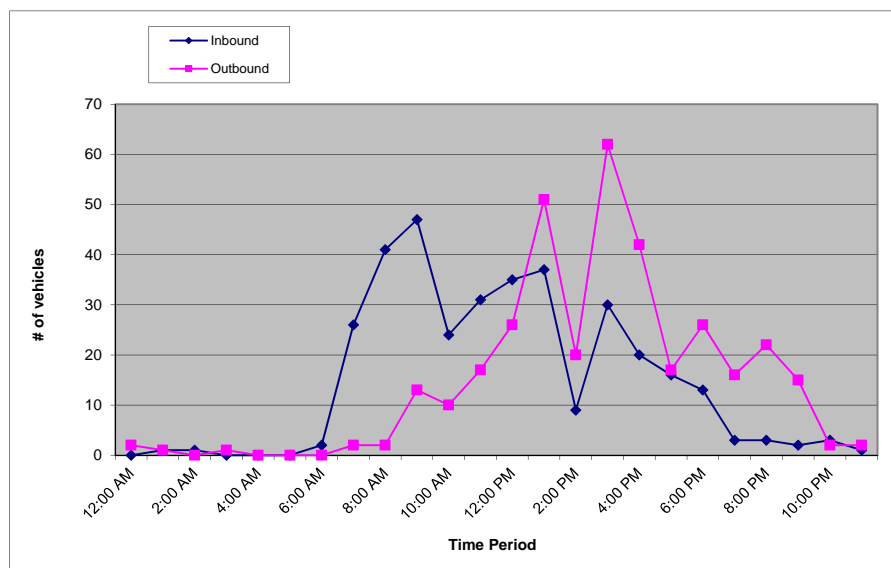
Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Theatre Dr  
**COUNTY** Stanislaus  
**COLLECTION DATE** Tuesday, March 05, 2019  
**NUMBER OF LANES** 2

**LATITUDE** 37.5223434  
**LONGITUDE** -120.860475  
**WEATHER** Clear

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	0	0	1	0	0	1	2	2
1:00 AM	0	0	0	1	1	1	0	0	0	1	2
2:00 AM	1	0	0	0	1	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	1	1	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	1	1	0	2	0	0	0	0	0	2
7:00 AM	0	3	11	12	26	0	0	1	1	2	28
8:00 AM	20	6	6	9	41	1	1	0	0	2	43
9:00 AM	6	14	18	9	47	2	2	8	1	13	60
10:00 AM	2	6	3	13	24	3	2	1	4	10	34
11:00 AM	17	3	4	7	31	9	4	2	2	17	48
12:00 PM	11	17	5	2	35	7	14	4	1	26	61
1:00 PM	4	7	13	13	37	6	6	12	27	51	88
2:00 PM	5	0	0	4	9	8	2	6	4	20	29
3:00 PM	8	16	2	4	30	27	21	10	4	62	92
4:00 PM	3	6	6	5	20	6	7	7	22	42	62
5:00 PM	4	3	5	4	16	8	2	2	5	17	33
6:00 PM	3	5	3	2	13	11	5	5	5	26	39
7:00 PM	3	0	0	0	3	2	8	2	4	16	19
8:00 PM	0	1	0	2	3	5	6	8	3	22	25
9:00 PM	0	1	0	1	2	3	3	1	8	15	17
10:00 PM	0	1	1	1	3	2	0	0	0	2	5
11:00 PM	1	0	0	0	1	0	0	1	1	2	3
Total	49.7%				345	50.3%				349	
	694										

AM% 31.8% AM Peak 60 9:00 am to 10:00 am AM P.H.F. 0.58  
 PM% 68.2% PM Peak 92 3:00 pm to 4:00 pm PM P.H.F. 0.62





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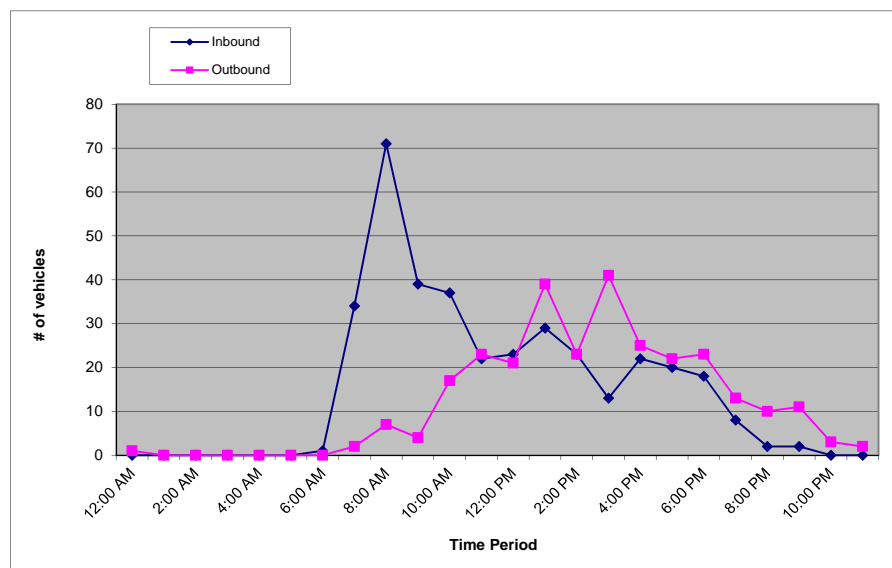
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Theatre Dr  
**COUNTY** Stanislaus  
**COLLECTION DATE** Wednesday, March 06, 2019  
**NUMBER OF LANES** 2  
**LATITUDE** 37.5223434  
**LONGITUDE** -120.860475  
**WEATHER** Clear

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	0	0	0	1	0	0	1	1
1:00 AM	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
3:00 AM	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	1	0	1	0	0	0	0	0	1
7:00 AM	1	5	16	12	34	0	0	1	1	2	36
8:00 AM	13	5	20	33	71	1	0	2	4	7	78
9:00 AM	5	5	9	20	39	0	1	0	3	4	43
10:00 AM	5	7	11	14	37	2	3	0	12	17	54
11:00 AM	4	4	5	9	22	3	4	8	8	23	45
12:00 PM	2	0	9	12	23	11	3	1	6	21	44
1:00 PM	3	4	12	10	29	11	3	10	15	39	68
2:00 PM	5	4	4	10	23	5	3	6	9	23	46
3:00 PM	4	2	2	5	13	11	8	4	18	41	54
4:00 PM	9	8	2	3	22	6	5	11	3	25	47
5:00 PM	0	8	8	4	20	3	7	6	6	22	42
6:00 PM	4	7	3	4	18	10	4	6	3	23	41
7:00 PM	6	2	0	0	8	7	2	2	2	13	21
8:00 PM	0	1	1	0	2	3	1	4	2	10	12
9:00 PM	0	1	1	0	2	2	0	2	7	11	13
10:00 PM	0	0	0	0	0	2	0	1	0	3	3
11:00 PM	0	0	0	0	0	1	1	0	0	2	2
Total	55.9%				364	44.1%				287	
	651										

**AM%** 39.6% **AM Peak** 78 **8:00 am to 9:00 am** **AM P.H.F.** 0.53  
**PM%** 60.4% **PM Peak** 68 **1:00 pm to 2:00 pm** **PM P.H.F.** 0.68





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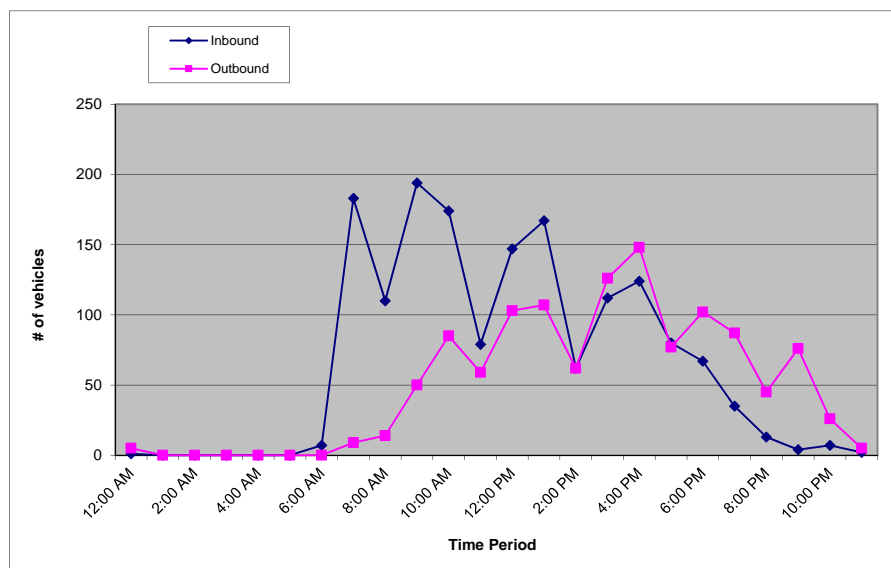
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Mariposa Dr **LATITUDE** 37.5244589  
**COUNTY** Stanislaus **LONGITUDE** -120.8624018  
**COLLECTION DATE** Tuesday, March 05, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	0	0	0	1	3	2	0	0	5	6
1:00 AM	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
3:00 AM	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	2	1	1	3	7	0	0	0	0	0	7
7:00 AM	4	31	57	91	183	0	2	2	5	9	192
8:00 AM	23	16	24	47	110	2	1	4	7	14	124
9:00 AM	69	68	34	23	194	10	30	7	3	50	244
10:00 AM	15	28	64	67	174	9	9	21	46	85	259
11:00 AM	23	11	23	22	79	14	12	14	19	59	138
12:00 PM	55	55	13	24	147	24	55	16	8	103	250
1:00 PM	16	32	59	60	167	11	10	32	54	107	274
2:00 PM	10	22	11	19	62	19	9	14	20	62	124
3:00 PM	26	38	24	24	112	46	44	13	23	126	238
4:00 PM	41	39	20	24	124	30	32	23	63	148	272
5:00 PM	13	17	24	26	80	33	12	17	15	77	157
6:00 PM	16	22	7	22	67	16	32	31	23	102	169
7:00 PM	21	5	4	5	35	23	30	17	17	87	122
8:00 PM	3	2	6	2	13	20	11	9	5	45	58
9:00 PM	1	2	1	0	4	33	18	15	10	76	80
10:00 PM	3	3	1	0	7	10	9	4	3	26	33
11:00 PM	0	1	1	0	2	0	2	0	3	5	7
Total	56.9%				1568	43.1%				1186	
	2754										

**AM%** 35.2% **AM Peak** 272 **10:15 am to 11:15 am** **AM P.H.F.** 0.60  
**PM%** 64.8% **PM Peak** 276 **1:15 pm to 2:15 pm** **PM P.H.F.** 0.61





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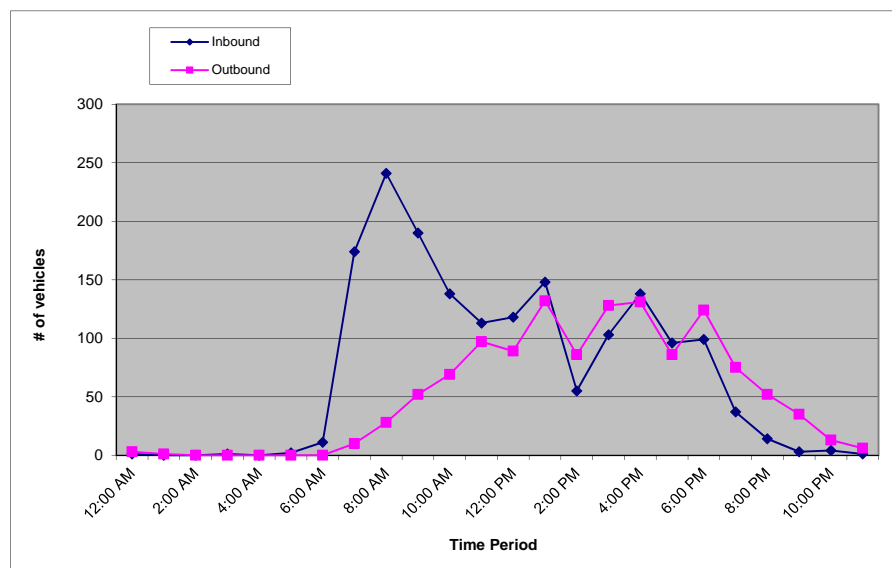
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Mariposa Dr **LATITUDE** 37.5244589  
**COUNTY** Stanislaus **LONGITUDE** -120.8624018  
**COLLECTION DATE** Wednesday, March 06, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	1	0	0	1	1	0	0	2	3	4
1:00 AM	0	0	0	0	0	0	1	0	0	1	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	0	0	1	0	0	0	0	0	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0	0	0	2	2	0	0	0	0	0	2
6:00 AM	2	0	0	9	11	0	0	0	0	0	11
7:00 AM	5	28	67	74	174	1	2	2	5	10	184
8:00 AM	29	32	78	102	241	3	1	4	20	28	269
9:00 AM	29	32	73	56	190	9	3	5	35	52	242
10:00 AM	28	27	40	43	138	13	9	7	40	69	207
11:00 AM	11	20	38	44	113	18	11	17	51	97	210
12:00 PM	19	15	32	52	118	34	10	8	37	89	207
1:00 PM	31	38	46	33	148	37	15	12	68	132	280
2:00 PM	11	13	12	19	55	36	10	13	27	86	141
3:00 PM	28	18	24	33	103	29	41	23	35	128	231
4:00 PM	46	51	20	21	138	36	47	26	22	131	269
5:00 PM	15	27	20	34	96	17	22	21	26	86	182
6:00 PM	16	40	25	18	99	15	21	55	33	124	223
7:00 PM	21	5	8	3	37	25	15	11	24	75	112
8:00 PM	2	4	6	2	14	9	15	17	11	52	66
9:00 PM	2	1	0	0	3	10	12	4	9	35	38
10:00 PM	1	0	0	3	4	4	1	5	3	13	17
11:00 PM	0	1	0	0	1	1	2	2	1	6	7
Total	58.1%				1687	41.9%				1217	
	2904										

**AM%** 38.9% **AM Peak** 277 **8:30 am to 9:30 am** **AM P.H.F.** 0.57  
**PM%** 61.1% **PM Peak** 280 **1:00 pm to 2:00 pm** **PM P.H.F.** 0.69





**Metro Traffic Data Inc.**  
 310 N. Irwin Street - Suite 20  
 Hanford, CA 93230  
 800-975-6938 Phone/Fax  
 www.metrotrafficdata.com

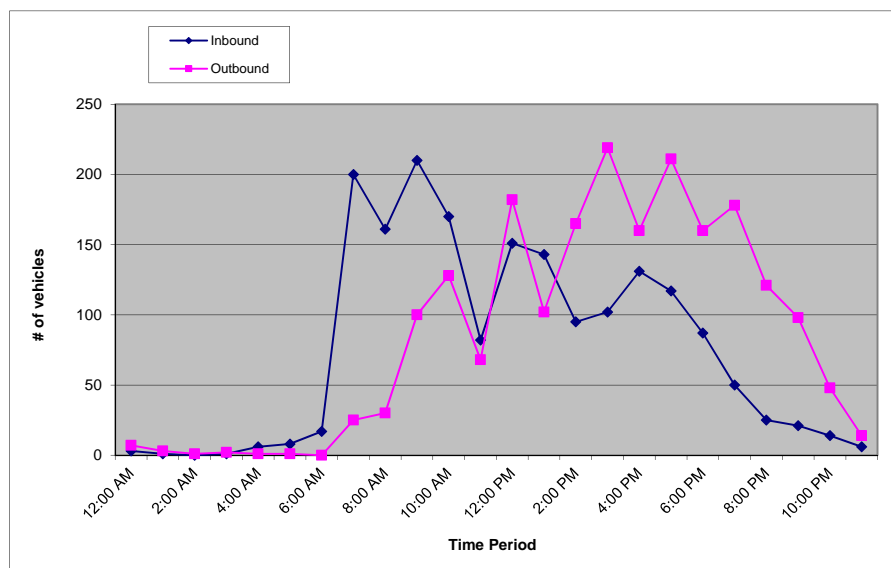
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Ansel Adams Blvd **LATITUDE** 37.5271556  
**COUNTY** Stanislaus **LONGITUDE** -120.8621948  
**COLLECTION DATE** Tuesday, March 05, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	1	0	1	3	3	1	1	2	7	10
1:00 AM	0	0	1	0	1	2	1	0	0	3	4
2:00 AM	0	0	0	0	0	1	0	0	0	1	1
3:00 AM	0	0	1	0	1	1	0	1	0	2	3
4:00 AM	0	0	0	6	6	0	1	0	0	1	7
5:00 AM	1	0	1	6	8	0	0	0	1	1	9
6:00 AM	2	2	6	7	17	0	0	0	0	0	17
7:00 AM	14	37	24	125	200	6	2	4	13	25	225
8:00 AM	41	37	31	52	161	7	3	7	13	30	191
9:00 AM	73	74	41	22	210	12	64	17	7	100	310
10:00 AM	20	27	55	68	170	14	16	26	72	128	298
11:00 AM	15	13	22	32	82	19	13	13	23	68	150
12:00 PM	42	64	23	22	151	53	82	24	23	182	333
1:00 PM	23	22	34	64	143	16	19	21	46	102	245
2:00 PM	51	16	11	17	95	105	24	13	23	165	260
3:00 PM	18	28	26	30	102	27	66	93	33	219	321
4:00 PM	29	39	40	23	131	31	46	31	52	160	291
5:00 PM	21	20	32	44	117	75	82	41	13	211	328
6:00 PM	34	17	15	21	87	27	35	56	42	160	247
7:00 PM	14	24	7	5	50	52	41	48	37	178	228
8:00 PM	11	6	6	2	25	33	36	31	21	121	146
9:00 PM	8	6	3	4	21	20	35	14	29	98	119
10:00 PM	4	2	4	4	14	22	12	12	2	48	62
11:00 PM	0	2	3	1	6	3	2	3	6	14	20
Total	47.1%				1801	52.9%				2024	
	3825										

AM% 32.0% AM Peak 346 8:45 am to 9:45 am AM P.H.F. 0.63  
 PM% 68.0% PM Peak 333 12:00 pm to 1:00 pm PM P.H.F. 0.57





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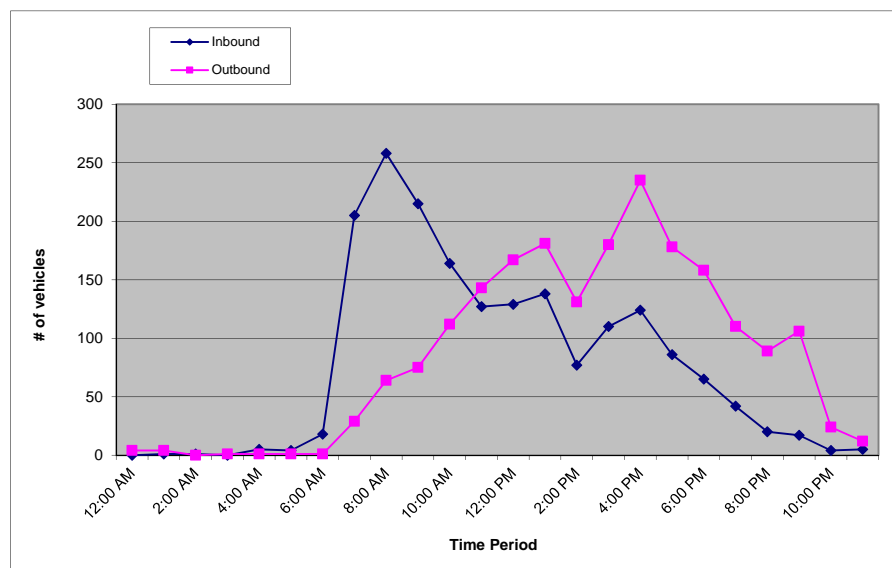
# 24 Hour Count Report

Prepared For: **GHD**  
 943 Reserve Drive, Suite 100  
 Roseville, CA 95678

**LOCATION** Ansel Adams Blvd **LATITUDE** 37.5271556  
**COUNTY** Stanislaus **LONGITUDE** -120.8621948  
**COLLECTION DATE** Wednesday, March 06, 2019 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Inbound					Outbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	0	0	3	1	0	0	4	4
1:00 AM	0	0	1	0	1	1	1	1	1	4	5
2:00 AM	1	0	0	0	1	0	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	1	0	1	1
4:00 AM	0	0	1	4	5	0	0	0	1	1	6
5:00 AM	0	0	0	4	4	0	0	0	1	1	5
6:00 AM	4	1	1	12	18	0	1	0	0	1	19
7:00 AM	13	22	79	91	205	7	5	8	9	29	234
8:00 AM	33	50	72	103	258	10	10	14	30	64	322
9:00 AM	35	40	59	81	215	13	4	9	49	75	290
10:00 AM	38	21	52	53	164	23	8	19	62	112	276
11:00 AM	22	24	35	46	127	23	26	31	63	143	270
12:00 PM	19	30	34	46	129	28	26	23	90	167	296
1:00 PM	31	30	45	32	138	46	24	28	83	181	319
2:00 PM	16	13	24	24	77	47	18	21	45	131	208
3:00 PM	26	25	26	33	110	53	52	30	45	180	290
4:00 PM	43	36	26	19	124	56	69	62	48	235	359
5:00 PM	21	18	25	22	86	73	43	26	36	178	264
6:00 PM	12	20	17	16	65	38	32	40	48	158	223
7:00 PM	25	8	3	6	42	41	19	16	34	110	152
8:00 PM	9	3	3	5	20	20	31	19	19	89	109
9:00 PM	3	6	4	4	17	32	26	13	35	106	123
10:00 PM	0	0	1	3	4	15	4	3	2	24	28
11:00 PM	3	0	1	1	5	6	1	1	4	12	17
Total	47.5%				1815	52.5%				2006	
	3821										

**AM%** 37.5% **AM Peak** 327 **8:15 am to 9:15 am** **AM P.H.F.** 0.61  
**PM%** 62.5% **PM Peak** 370 **3:45 pm to 4:45 pm** **PM P.H.F.** 0.88





## about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

**Todd Tregenza**  
Todd.Tregenza@ghd.com  
916.865.0935

**Zach Stinger, EIT**  
Zachary.Stinger@ghd.com  
916.918.0637

[www.ghd.com](http://www.ghd.com)