

Transit Mall Survey Analysis 2018-2021

Introduction

The 2nd Street Transit Mall is the location of many bus transfers between the various transit agencies of Sonoma County. This area is designed to accommodate only public transport, rather than private vehicles. A survey was conducted five consecutive years; July 2017, June 2018, July 2019, June/July 2020, and July 2021. Private vehicles were observed to determine if they were being deterred from entering the Downtown Transit Mall with the existing regulator signage and roadway markings. Unauthorized entry was monitored closely usually in two-hour increments to determine the effectiveness of current infrastructure in preventing private vehicle access.



Above is an aerial view of the Transit Mall. The lanes circled in red indicate “no turn” lanes or “transit only” lanes installed to deter private vehicles from entering the Transit Mall. Prior to the 2018 surveys, BUS ONLY legends on the roadway had been installed and had little effect on driver behavior and private vehicles entered the Transit Mall throughout the day. The data collected in 2017 reflects this condition. In 2018, prior to the 2018 surveys red lanes were installed into the left turn pocket to enhance the visibility and prohibition of the turning movement for private vehicles. The right turns into the Transit Mall from at both intersections lack the equivalent markings to prevent unauthorized entry due to the current roadway lane assignments.

Summary

The addition of the “transit only” red road markings have greatly helped to reduce unauthorized entry into the Transit Mall. Since the additional red markings were implemented on both sides of the Transit Mall in early June 2018 (before 2018 surveys were conducted), there has been a significant reduction in the amount of unauthorized vehicle entries. However, additional infrastructure updates are still needed

to ensure that unauthorized entry is as close to zero as possible. There are still many cars that turn right into the Transit Mall from both B Street and Santa Rosa Avenue. There is usually very little activity in the morning hours and around noon. Peak hours are in the afternoons between 3 and 5 pm. Most of the unauthorized traffic is coming from Santa Rosa Avenue, where there is no infrastructure or relevant marking to prevent incoming traffic making a southbound right. Additionally, many vehicles are coming in at different times than the police patrols. Because of this, none of the vehicles that passed through in the first three years of conducting this survey were ever stopped, but in 2020 a significant number of cars were stopped by Santa Rosa Police. Many of the private vehicles are also pulling into the parking lot across from the Transit Mall kiosk at 520 Third Street. However, these vehicles were not included in the data. It should be noted that in 2020 due to COVID-19, there was significantly less transit activity in the Transit Mall than in past years.

The data collected in 2021 was broken down further from prior years and identified the number of left turns verse right turns into the Transit Mall. The data showed that the majority of the turns in to the mall are right turns where red markings are not implemented. The total number of vehicle per hour observed entering the Transit Mall increased from 2019 and 2020 but is still 35% less than without the red markings implemented.

Results

Overall, there are less vehicles entering the Transit Mall from 2017 and 2018, but the rate of vehicles observed per hour has somewhat flattened. Since the initial survey were conducted there appears to be a 35% decrease in the number of vehicles per hour entering the Transit Mall area.

The majority of unauthorized traffic is coming from Santa Rosa Avenue in all five years of observations. The data indicates that the majority of the vehicles entering the Transit Mall are turning right where red lane markings are not installed as there are no dedicated right turning lanes at these locations.

Below is a summary of the data collected over the past 5 years with 2017 indicating the conditions prior to implementing the red lane markings.

Year	# of vehicles observed	# of Hours survey conducted	Observed Vehicles/hour	Percent Change	Direction of Travel	
					From Santa Rosa Ave	From B Street
2017	49	28.5	1.72		27	22
2018	43	28	1.54	11%	31	12
2019	32	31	1.03	33%	23	9
2020	52	56.3	0.92	10%	31	21
2021	60	54	1.11	20%	30 (R), 8 (L)	21 (R), 1(L)
Total				35%		

(R) Right turn; (L) Left turn(has red pavement markings)