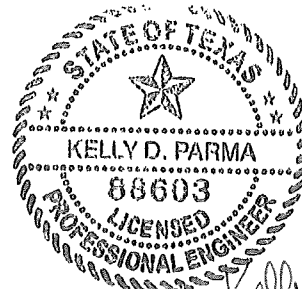


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## TECHNICAL MEMORANDUM

DATE: December 21, 2017  
TO: Mary K. Hamann, P.E., Engineer  
City of New Braunfels, Texas  
FROM: Kelly D. Parma, P.E., PTOE  
Lee Engineering, LLC (TBPE Firm F-450)  
SUBJECT: Parking Occupancy Study – Sunnybrook Drive  
(Technical Memorandum 128.08-A)



### PURPOSE

The purpose of this study was to determine the amount of on-street curb parking that was being utilized by residents and non-residents on Sunnybrook Drive between Gruene Road and Knight Cove. Non-residents use the area streets for parking to access the local shops along Gruene Road and Gruene Hall, especially during special events.

### METHODOLOGY

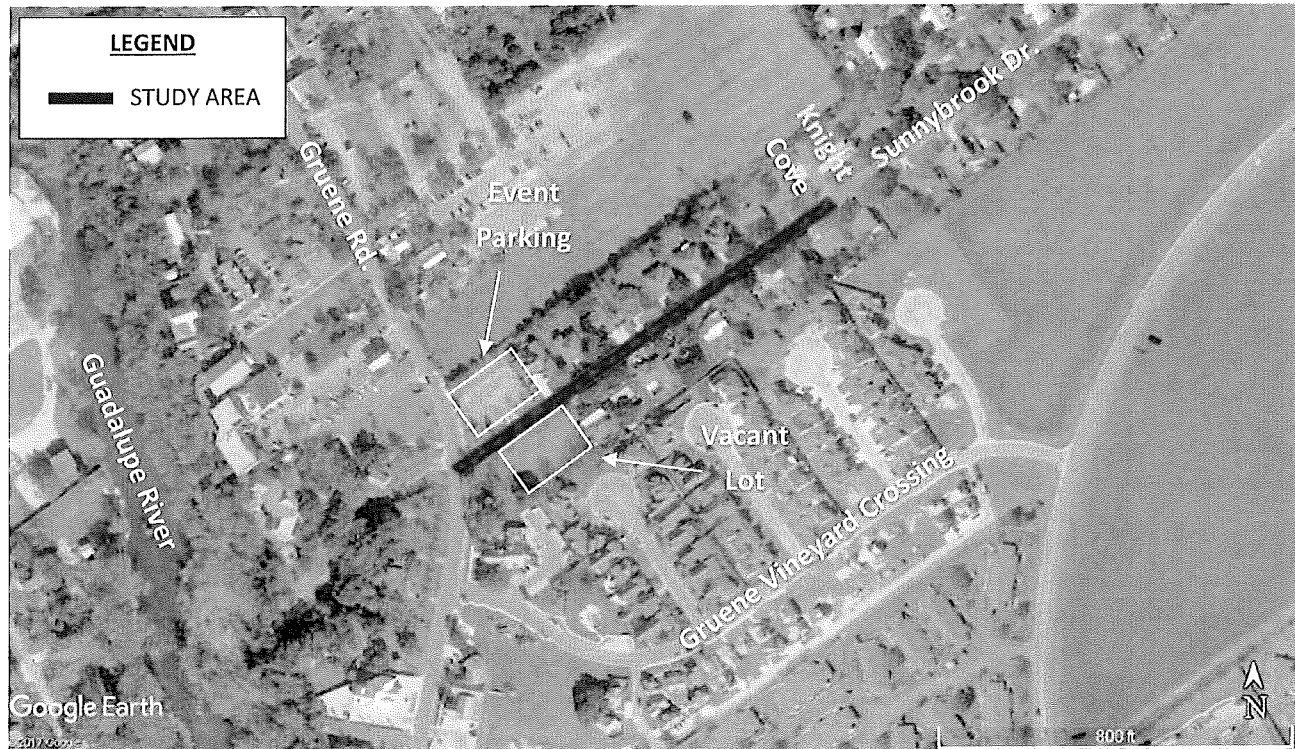
The area, illustrated in **Figure 1**, was surveyed on Friday, December 1, 2017 from 9:00 p.m. until 12:00 a.m. and on Saturday, December 2, 2017 from 12:00 p.m. to 4:00 p.m. and 9:00 p.m. to 12:00 a.m. These time periods were selected to better capture traffic created by the local shops during the midday period on Saturday and by events held at Gruene Dance Hall on Friday and Saturday night. The monthly market event, Old Gruene Market Days, was held on Saturday and Sunday of this particular weekend. In addition, Gruene Hall hosted popular Texas Country band, Casey Donahew Band on Friday night and the Kelly Willis & Bruce Robinson Holiday Shindig on Sunday night.

The data collection process consisted of measuring street segments of available curb space for on-street parking and the number of on-street parked vehicles differentiated by resident or non-resident vehicles, based on assumed observations in the field. During the time periods when data was collected, observations of the number of parked vehicles by side of the street were made every ½-hour and recorded, as shown in **Table 1**. The number of different vehicles was not recorded, only the fact that vehicles were parked on the street. The analysis also takes into account an existing "No Parking From Here To Corner" sign located on the north side of Sunnybrook Drive approximately 50 feet from the intersection of Sunnybrook Drive and Gruene Road.

A parking lot on the north side of Sunnybrook Drive, east of Gruene Road, appeared to be available for visitors during weekend evening events. During the midday period on Saturday, on-street parking on Sunnybrook Drive was mostly utilized by employees of local restaurants that are open in the evening. The parking lot on Sunnybrook Drive was closed at the time of their arrival forcing them to park on the street and remained closed when our midday observations concluded (4:00 PM). The parking lot was

open when arriving at the study area (9:00 PM) each of the two nights observations were made. Our observations indicated that this parking lot helped to reduce the on-street parking on Sunnybrook Drive. The parking lot was at approximately 90% of capacity on Friday night and at approximately 50% of capacity on Saturday night.

Figure 1 – Study Area



**Table 1 – On-Street Parking Observations**

Number of Vehicles Parked per Segment Sunnybrook Dr. – From Gruene Rd. to Knight Cove								
12/1/17 (FRI) TIME	Resident	Non-Resident	12/2/17 (SAT) TIME	Resident	Non-Resident	12/2/17 (SAT) TIME	Resident	Non-Resident
9:00 PM	N 1	0	12:00 PM	N 0	0	9:00 PM	N 5	1
	S 1	0		S 1	0		S 4	10
9:30 PM	N 2	0	12:30 PM	N 0	0	9:30 PM	N 5	1
	S 1	0		S 2	0		S 2	10
10:00 PM	N 1	0	1:00 PM	N 0	0	10:00 PM	N 3	1
	S 1	0		S 2	0		S 2	7
10:30 PM	N 1	0	1:30 PM	N 1	2	10:30 PM	N 4	1
	S 1	0		S 2	0		S 1	3
11:00 PM	N 1	0	2:00 PM	N 1	3	11:00 PM	N 4	1
	S 1	0		S 3	0		S 1	2
11:30 PM	N 1	0	2:30 PM	N 1	4	11:30 PM	N 4	0
	S 1	0		S 2	0		S 1	1
			3:00 PM	N 1	5			
				S 2	4			
			3:30 PM	N 2	4			
				S 3	8			

**Table 2** presents a tabulation of the percentage of available curb space used by parked vehicles (residents and non-residents combined) based on the measured curb lengths for each side of the street shown in the header of the table and an effective parked vehicle length of 30 feet. These results quantify the summary of observations presented in Table 1.

It should be noted that the curb lengths presented in Table 2 do not include driveway lengths. As well, 35% of available on-street parking on the south side of Sunnybrook Drive fronts a vacant lot and 18% of available on-street parking on the north side of Sunnybrook Drive fronts the public event parking lot.

Table 2 – Percentage of Curb Space Utilized

Percent of Available Curb Space Utilized (Resident + Non-Resident Vehicles)*					
Available Curb Space: North side = 692' / South side = 816'					
Sunnybrook Dr. – From Gruene Rd. to Knight Cove					
12/1/17 TIME	Resident + Non-Resident		12/2/17 TIME	Resident + Non-Resident	
9:00 PM	N	4%	12:00 PM	N	0%
	S	4%		S	4%
9:30 PM	N	9%	12:30 PM	N	0%
	S	4%		S	7%
10:00 PM	N	4%	1:00 PM	N	0%
	S	4%		S	7%
10:30 PM	N	4%	1:30 PM	N	13%
	S	4%		S	7%
11:00 PM	N	4%	2:00 PM	N	17%
	S	4%		S	11%
11:30 PM	N	4%	2:30 PM	N	22%
	S	4%		S	7%
			3:00 PM	N	26%
				S	22%
			3:30 PM	N	26%
				S	40%

\* At 30 Ft. per Vehicle

Analysis of the data showed that:

- Resident on-street parking was consistent during all three study periods while non-resident on-street parking fluctuated.
- On-street parking, particularly by non-residents, peaked at 51% of on-street occupancy on the south side of Sunnybrook Drive around 9:00 p.m. on Saturday night.

## CONCLUSION

While the on-street parking peaked at 51% on the south side of the street, a large portion of that occupancy took place in front of the vacant parking lot. Only a small number of vehicles (non-residential assumed) were observed to be parked on-street in front of residential properties.