

MEMORANDUM

Date: March 5, 2019

To: Millcreek City
Francis Lilly, AICP
Community Development Director

From: Hales Engineering



Subject: Millcreek Multi-family Residential Parking Study

UT19-1397

This memorandum discusses the parking study completed for Millcreek City regarding guest parking at multi-family residential developments. The purpose of this parking study was to review the existing guest parking requirements in Millcreek and to make a recommendation to keep or change the existing parking rates.

EXECUTIVE SUMMARY

The following is a summary of the key findings and recommendations in this parking study:

- Parking demand data were collected on Sunday, February 3, 2019 (Super Bowl Sunday) and Sunday, February 24, 2019 (average Sunday) at multi-family residential developments in Millcreek City.
- The average guest parking rate ranged from 0.25 to 0.32 guest stalls per unit. The 85th percentile rate ranged from 0.33 to 0.50 guest stalls per unit.
- Guest parking requirements at other local cities varies from 0.25 to 0.5 stalls per unit.
 - Recommendation: It is recommended that Millcreek City keep the required guest parking rate at 0.33 stalls per unit. It is anticipated that this parking rate will meet the observed 85th percentile guest parking rate on an typical Sunday of 0.33 stalls per unit and the average guest parking rate on a busy Sunday of 0.32 stalls per unit. This rate is also in line with other local municipalities.
- Hales Engineering reviewed parking requirements of other municipalities around the nation to determine if Millcreek City should allow developers to count tandem parking spaces on driveways toward the required parking amount.
 - Recommendation: It is recommended that the City allow developers to count no more than one (1) tandem parking space on a driveway toward the total required parking.

Millcreek City Parking Rates

Requirements for off-street parking in Millcreek City are outlined in Chapter 19.80 of the City code. The parking rate for multi-family residential developments varies by unit type (bedroom number). However, a flat rate of 0.33 stalls per unit is required for guest parking. The required parking rates for multi-family residential developments are shown in Table 1.

Table 1: Multi-family Development Parking Rates – Millcreek City

Unit Type	Parking Rate (spaces per unit)	Guest Parking Rate (spaces per unit)
Studio	0.75	0.33
One-Bedroom	1.5	
Two-Bedroom	2	
Three-Bedroom	2.5	
Four-Bedroom	3	
Source: Millcreek City Code, Section 19.80.040		

Data Collection

Hales Engineering coordinated with Millcreek City staff to collect guest parking data at ten (10) multi-family developments in Millcreek City. Data were collected on Sunday, February 3, 2019 between 4:30 and 6:30 p.m., which was during the broadcast of the NFL Super Bowl. Counts were collected during this time knowing that many people may have guests visiting.

Hales Engineering and Millcreek City staff counted parking demand and supply at the following ten residential developments:

- Sunnyvale: 764 West 3940 South
- Driftwood: 3945 South 700 West
- Artesian Springs: 4197 South Main Street
- Tapestry Townhomes: 852 East 3900 South
- Millbrook Apartments: 1400 East 3900 South
- Cove Point PUD: 3552 S Cove Point Dr
- Lotus Calla: 3723 S 900 E
- Garden Place PUD: 921 E Carson Garden Ln
- Mott Drive Apartments: 2272 East 3280 South
- Park East Apartments: 1717 E Murray-Holladay Rd.

The purpose of the data collection was to collect guest parking data by counting vehicles parked in stalls not marked for residents, in driveways, or on the street near the development. Out of the

ten developments, two of them did not separate resident stalls from other stalls (Mott Drive and Park East Apartments). In those cases, all parked vehicles were counted, including resident vehicles. A summary of the parking counts at these developments is shown in Table 2. Detailed count data is shown in Appendix A.

Table 2: Multi-family Parking Data Collection

Parking Count Summary - Sunday, February 3, 2019 (4:30 - 6:30 p.m.)				
Development	Address	# of Units	Vehicles Parked¹	Parking Rate
Sunnyvale	764 West 3940 South	96	73	0.76
Driftwood	3945 South 700 West	90	63	0.70
Artesian Springs	4197 South Main Street	378	55	0.15
Tapestry Townhomes	852 East 3900 South	42	22	0.52
Millbrook Apartments	1400 East 3900 South	28	7	0.25
Cove Point PUD	3552 S Cove Point Dr	81	15	0.19
Lotus Calla	3723 S 900 E	43	21	0.49
Garden Place PUD	921 E Carson Garden Ln	6	2	0.33
Mott Drive Apartments ²	2272 East 3280 South	12	15	1.25
Park East Apartments ²	1717 E Murray-Holladay Rd	70	68	0.97
Average			34	0.56
85th Percentile			66	0.90
1. Vehicles were counted if parked in space not marked for residents, in driveways, or on street near development.				
2. Stalls were completely un-marked at these locations; therefore, all stalls and vehicles were counted.				

As shown, it was observed that the average parking rate at the study developments was 0.56 stalls per unit. The data show an 85th percentile rate of 0.90 stalls per unit. However, these numbers are inflated because some resident parking was included in the numbers with at least two of the developments.

Therefore, Hales Engineering identified five of the original ten developments where guest parking could easily be identified. These developments each have characteristics that more clearly define resident parking and/or guest parking areas. For example, some developments have garages with each unit and separate uncovered parking that seems to be for guests.

In order to determine a range of parking demand that could be experienced at these developments, Hales Engineering collected additional parking demand data on Sunday, February 24, 2019 between 4:30 and 6:30 p.m. A summary of this data compared with the original data collected on Sunday, February 3 is shown in Table 3.

Table 3: Guest Parking Count Summary

Guest Parking Count Summary					
Development	# of Units	Sunday, Feb. 3		Sunday, Feb. 24	
		Guest Vehicles Parked ¹	Guest Parking Rate	Guest Vehicles Parked ¹	Guest Parking Rate
Artesian Springs	378	55	0.15	45	0.12
Tapestry Townhomes	42	22	0.52	10	0.24
Millbrook Apartments	28	7	0.25	7	0.25
Cove Point PUD	81	15	0.19	17	0.21
Lotus Calla	43	21	0.49	19	0.44
Average		24	0.32	20	0.25
85th Percentile		35	0.50	29	0.33
1. Vehicles were counted if parked in space not marked for residents, in driveways, or on street near development.					

As shown in Table 3, the average rate ranged from 0.25 to 0.32 guest stalls per unit. The 85th percentile rate ranged from 0.33 to 0.50 guest stalls per unit. Based on the 85th percentile rates, it is anticipated that 0.33 guest stalls per unit would be sufficient for typical days.

Literature Review

Local Parking Rates

Hales Engineering completed a literature review of parking rates in other nearby cities to compare with the Millcreek rates. The following is a summary of the cities that were studied and what the multi-family parking rates are in those cities:

- South Salt Lake
 - Guest Parking: 0.5 stalls per unit
- Murray
 - Guest Parking: 0.5 stalls per unit
- Midvale
 - Guest Parking: 0.25 stalls per unit
- Sandy
 - Guest Parking: 0.25 stalls per unit
- Holladay
 - Guest Parking: No requirement (2 stalls per unit required total)
- Cottonwood Heights
 - Guest Parking: No requirement (Total parking based on ITE rates)
- Salt Lake City
 - Guest Parking: No requirement (Total parking varies by unit type)

As shown, two nearby cities (South Salt Lake and Murray) require 0.5 guest stalls per unit. Midvale City and Sandy City require 0.25 guest stalls per unit. Other cities include their guest parking within the total required parking per unit.

Counting Guest Parking Stalls

Hales Engineering completed a literature review to determine how guest stalls can be counted for a multi-family development. Specifically, Hales Engineering researched whether parking in front of a unit on a driveway can be counted towards the required guest parking. While guest parking on a driveway is a convenient place to park when a guest is visiting the corresponding unit, that guest parking location does not easily serve for guest parking at other units. Also, for units with garages, many people use their garage for storage and cars are parked on the driveway. This further complicates the issue of allowing driveways to be counted toward visitor parking. The question of allowing driveways to be counted toward parking requirements becomes a question of counting tandem parking toward requirements.

Hales Engineering found the following related information for parking requirements at other municipalities around the nation:

- **Davis, California:** Tandem parking is allowed on driveways. However, only one tandem arrangement can count toward required parking.
- **Napa, California:** Tandem parking is allowed on driveways.
- **San Diego, California:** Tandem parking is allowed for single-family, duplex, and townhome residential uses. For other multi-family uses, tandem spaces cannot be used for guest parking.
- **Issaquah, Washington:** One tandem parking stall is allowed for each multi-family unit.

Recommendations

It is recommended that the City keep the required guest parking rate at 0.33 guest stalls per dwelling unit. It is anticipated that this parking rate will meet the observed 85th percentile guest parking rate on a typical Sunday of 0.33 stalls per unit and the average guest parking rate on a busy Sunday of 0.32 stalls per unit. This parking rate is in line with other City requirements, between 0.25 and 0.5 stalls per unit.

It is recommended that the City allow developers to count no more than one (1) tandem parking space on a driveway toward the total required parking. This would primarily apply to developments with garages or covered parking with a driveway behind. In an example with a two-car garage and a driveway, this would mean that three parking stalls could be counted toward requirements. This would provide sufficient parking while allowing residents the flexibility to have storage in part of the garage or to have an extra space for a guest vehicle.

APPENDIX A

Detailed Count Data

Millcreek Parking Count Summary
Sunday, February 3, 2019 (Super Bowl Sunday)
4:30 - 6:30 p.m.

Hales Engineering Counts

1 Sunnyvale	764 West 3940 South	96 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Assigned, covered stalls	104 1.08	
Uncovered stalls	88 0.92	
Total	192 2.00	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
1: 700 West (west side)	0 0.00	
2: 3940 South (both sides)	17 0.18	
3: Resident stalls	45 0.47	
4: Guest stalls	56 0.58	
Total	118 1.23	
Total Guest Vehicles	73 0.76	
2 Driftwood	3945 South 700 West	90 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Assigned, covered stalls	89 0.99	
Uncovered stalls	88 0.98	
Total	177 1.97	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
1: 700 West (east side)	5 0.06	
2: Resident stalls	45 0.50	
3: Guest stalls	58 0.64	
Total	108 1.20	
Total Guest Vehicles	63 0.70	
3 Artesian Springs	4197 South Main Street	378 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Guest stalls (in garage)	25 0.07	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
1: Guest stalls (in garage)	25 0.07	
2: Columbia Ave (south side)	21 0.06	
3: Main St	9 0.02	
Total Guest Vehicles	55 0.15	
4 Tapestry Townhomes	852 East 3900 South	42 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Spaces	21 0.5	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
1: Cars parked outside of garages	1 0.02	
2: Cars parked in parking spaces	21 0.50	
Total Guest Vehicles	22 0.52	
5 Millbrook Apartments	1400 East 3900 South	28 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Spaces	17 0.61	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
1: Cars parked outside of garages	0 0.00	
2: Cars parked in parking spaces	7 0.25	
3: Cars on street	0 0.00	
Total Guest Vehicles	7 0.25	

Millcreek City Counts - Francis Lily

6 Mott Drive Apartments	2272 East 3280 South	12 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Stalls	29 2.42	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
Occupied stalls	15 1.25	
7 Cove Point PUD	3552 S Cove Point Dr	81 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Guest stalls	51 0.63	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
Occupied guest stalls	15 0.19	
<u>Notes</u>		
One party where people parked on street; there were also cars in driveways		
8 Lotus Calla	3723 S 900 E	43 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Guest stalls	22 0.51	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
Occupied guest stalls	21 0.49	
<u>Notes</u>		
11 additional vehicles in fire lane; some appeared to be construction vehicles		
9 Garden Place PUD	921 E Carson Garden Ln	6 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
No official guest parking	- -	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
Cars in driveways	2 0.33	
10 Park East Apartments	1717 E Murray-Holladay Rd	70 units
<u>Supply</u>	<u>#</u> <u>Rate</u>	
Stalls	129 1.84	
<u>Demand</u>	<u>#</u> <u>Rate</u>	
Occupied stalls	68 0.97	

Millcreek Parking Count Summary
Sunday, February 24, 2019
4:30 - 6:30 p.m.

3 Artesian Springs			4197 South Main Street			378 units			5 Millbrook Apartments			1400 East 3900 South			28 units		
<u>Demand - 4:30 pm</u>			#	Rate					<u>Demand - 5:15 pm</u>			#	Rate				
1: Guest stalls (in garage)			24	0.06					1: Cars parked outside of garages			0	0.00				
2: Columbia Ave (south side)			14	0.04					2: Cars parked in parking spaces			7	0.25				
3: Main St			7	0.02					3: Cars on street			0	0.00				
Total Guest Vehicles			45	0.12					Total Guest Vehicles			7	0.25				
<u>Demand - 5:30 pm</u>			#	Rate					<u>Demand - 6:10 pm</u>			#	Rate				
1: Guest stalls (in garage)			25	0.07					1: Cars parked outside of garages			1	0.04				
2: Columbia Ave (south side)			15	0.04					2: Cars parked in parking spaces			5	0.18				
3: Main St			5	0.01					3: Cars on street			1	0.04				
Total Guest Vehicles			45	0.12					Total Guest Vehicles			7	0.25				
4 Tapestry Townhomes			852 East 3900 South			42 units			7 Cove Point PUD			3552 S Cove Point Dr			81 units		
<u>Demand - 4:45 pm</u>			#	Rate					<u>Demand - 5:30 pm</u>			#	Rate				
1: Cars parked outside of garages			0	0.00					Occupied guest stalls			17	0.21				
2: Cars parked in parking spaces			10	0.24					<u>Demand - 6:25 pm</u>			#	Rate				
Total Guest Vehicles			10	0.24					Occupied guest stalls			14	0.17				
<u>Demand - 5:50 pm</u>			#	Rate													
1: Cars parked outside of garages			1	0.02													
2: Cars parked in parking spaces			9	0.21													
Total Guest Vehicles			10	0.24													
8 Lotus Calla			3723 S 900 E			43 units											
<u>Demand - 5:00 pm</u>			#	Rate													
Occupied guest stalls			16	0.37													
<u>Demand - 6:00 pm</u>			#	Rate													
Occupied guest stalls			19	0.44													