



Transportation Action Plan

Summer 2017 Results

9 November 2017

Prepared by Drdul Community Transportation Planning
for the Resort Municipality of Whistler

Contents

1	Introduction.....	1
1.1	Transportation Action Plan	1
1.2	Summer 2017 Actions	2
1.3	Summer 2017 vs Summer 2016	3
2	Parking.....	5
2.1	Parking Data	5
2.1.1	Parking Inventory	6
2.1.2	Parking Surveys	6
2.2	Parking Availability	8
2.3	Overall Results	9
2.4	Day Lot Results	12
2.5	Village Results	17
2.5.1	Municipal Parking in the Village	17
2.5.2	Private Lots in the Village	22
3	Other Transportation Actions	24
3.1	Free Transit Service	24
3.2	Bicycle Valet Parking	25
3.3	Commercial Buses	27
4	Conclusions and Recommendations.....	29

1 Introduction

This report presents the results of the first phase of Whistler's Transportation Action Plan, adopted by Council in June 2017 and implemented in summer 2017.

1.1 Transportation Action Plan

The 2017 Transportation Action Plan identifies priority transportation actions to be implemented in the short-term. The Action Plan was developed in response to increasing issues affecting transportation to, from and within Whistler. With a larger permanent population and increasing numbers of visitors to Whistler, transportation challenges of parking availability and traffic congestion are being felt more than ever. To identify the best strategies and actions to address these pressing issues, municipal Council reactivated the Transportation Advisory Group (TAG) to provide advice and recommendations on the development of a Transportation Action Plan.

TAG is composed of a group of diverse stakeholders representing Whistler-Blackcomb, Tourism Whistler, the Whistler Chamber of Commerce, BC Transit, the Ministry of Transportation and Infrastructure, and four citizens-at-large, plus representatives of various municipal departments. These stakeholders worked together to develop a Transportation Action Plan that identified short, medium and long-term actions to address transportation issues. TAG focused on refining and prioritizing actions that could be implemented in 2017. The draft Action Plan was presented to Council in December 2016, and was followed by an extensive public engagement process in January and February 2017.

The Action Plan supports TAG's vision that Whistler's transportation system efficiently and affordably moves people and products to, from and within Whistler, while delivering a high-quality experience and minimizing impacts on natural areas.

Recommended actions are separated into five strategy areas:

- Highway 99 efficiencies, which include an accident investigation assessment, an intersection investigation, and a capacity review examining the potential for additional lanes, intersection upgrades, and other changes to improve capacity of the highway.
- Transit improvements, including increased transit service on key routes at key times, free transit on summer weekends and holidays, reduced monthly pass prices, and an expanded Family Travel Program. Parking revenues are used to offset the costs of transit improvements.
- Peak day operations plans to help control the flow of traffic into and out of municipal parking lots, and secure bicycle parking to encourage more trips by bicycle instead of by automobile.
- Better parking management, including actions to improve parking availability, and better information regarding parking.
- Preferred transportation modes are supported with actions to improve bicycle parking and Valley Trail linkages, encourage car-sharing and upgrade the Gateway bus loop.

Over the winter, staff from the Resort Municipality of Whistler, the Ministry of Transportation and Highways, and Whistler Blackcomb tested several actions that were identified in the Action Plan, such as flaggers at highway traffic signals and parking lot exits on peak days. The results of the public engagement and the tests of winter actions were used to refine the summer 2017 Action Plan, which focused on improving parking availability and reducing traffic congestion from Canada Day through Labour Day.

1.2 Summer 2017 Actions

The summer phase of the Action Plan was implemented on 1 July. Improvements to transit service in summer 2017 included:

- Free transit operated on Saturdays, Sundays and holiday Mondays all summer, all day. This was a continuation of the successful pilot project in summer 2016 that operated on six Saturdays from the BC Day weekend to the Labour Day weekend.
- The frequency of transit service was increased on Routes 1 and 2 to provide 15-minute service from both the north and the south ends of Whistler.
- The price of the monthly transit pass was reduced by \$15 to \$50 per month, to match the new price of a monthly parking pass.
- The Family Travel Program was expanded to allow any fare paying adult to travel for free with up to three children aged 12. Previously, the program was only available to adult pass holders.

More bicycle parking was available in the summer. Additional bicycle racks were installed in the Village, and a free secure bicycle valet parking service was provided in the Village on weekends.

Changes to parking prices and regulations in the Day Lots included:

- Pricing was introduced for parking in Lots 4 and 5 at \$5 per day. The price in Lots 1, 2 and 3 was increased from \$8 to \$10 per day.
- Oversize vehicles such as RVs and vehicles with trailers were relocated to the eastern half of Lot 3, which reduced the capacity of Lot 3 by 76 stalls. A new price of \$20 per day was applied to oversize vehicles. Previously, there was not a higher rate for oversized vehicles regardless of how many parking stalls were occupied.
- New 1-month and 2-month parking passes were available for employees and residents to park in Lots 4 and 5, priced at \$30 per month.
- In Lots 1, 2 and 3, the price of the 1-month general parking pass was increased by \$20 to \$50 per month, to match the new reduced price of a monthly transit pass. The 3-month and 6-month parking passes that were sold previously were eliminated.
- Commercial buses that previously parked in Lot 4 were relocated out of the Day Lots to several locations near the Village (parking for commercial buses is discussed in more detail in Section 3.3). This created an additional 58 general purpose parking stalls in Lot 4.

- Overnight parking in the Day Lots was limited to 24 hours (a reduction from the previous limit of 72 hours).

Changes to parking prices and regulations in the Village included:

- The time limits for parking on Main Street, at Village Green, at the municipal hall and in the surface lot at the Conference Centre were reduced from 4 hours to 2 hours.
- The time limits at Gateway Loop, the Visitor Centre and on Sundial Crescent were reduced from 2 hours to 1 hour.
- Parking in municipal lots in the Village was free after 7:00 pm, two hours earlier than in previous years when pay parking was in effect until 9:00 pm.

1.3 Summer 2017 vs Summer 2016

The results presented in Section 2 and 3 for summer 2017 include comparisons with summer 2016. In considering the changes from last summer to this summer, it is useful to compare activity levels in summer 2016 and summer 2017:

- **Traffic:** Figure 1.1 illustrates average daily traffic volumes on Highway 99 at Brio, by month from January 2014 through to August 2017. Summer months (July and August) are highlighted with a grey rectangle. Traffic volumes were similar in 2016 and 2017, and were only 1.6% lower in summer 2017 than in summer 2016.
- **Visitors:** Total hotel room nights for summer 2017 were 1% less than in summer 2016, and hotel occupancy was one percentage point lower. These results indicate that numbers of overnight visitors in Whistler in summer 2017 were comparable to summer 2016.

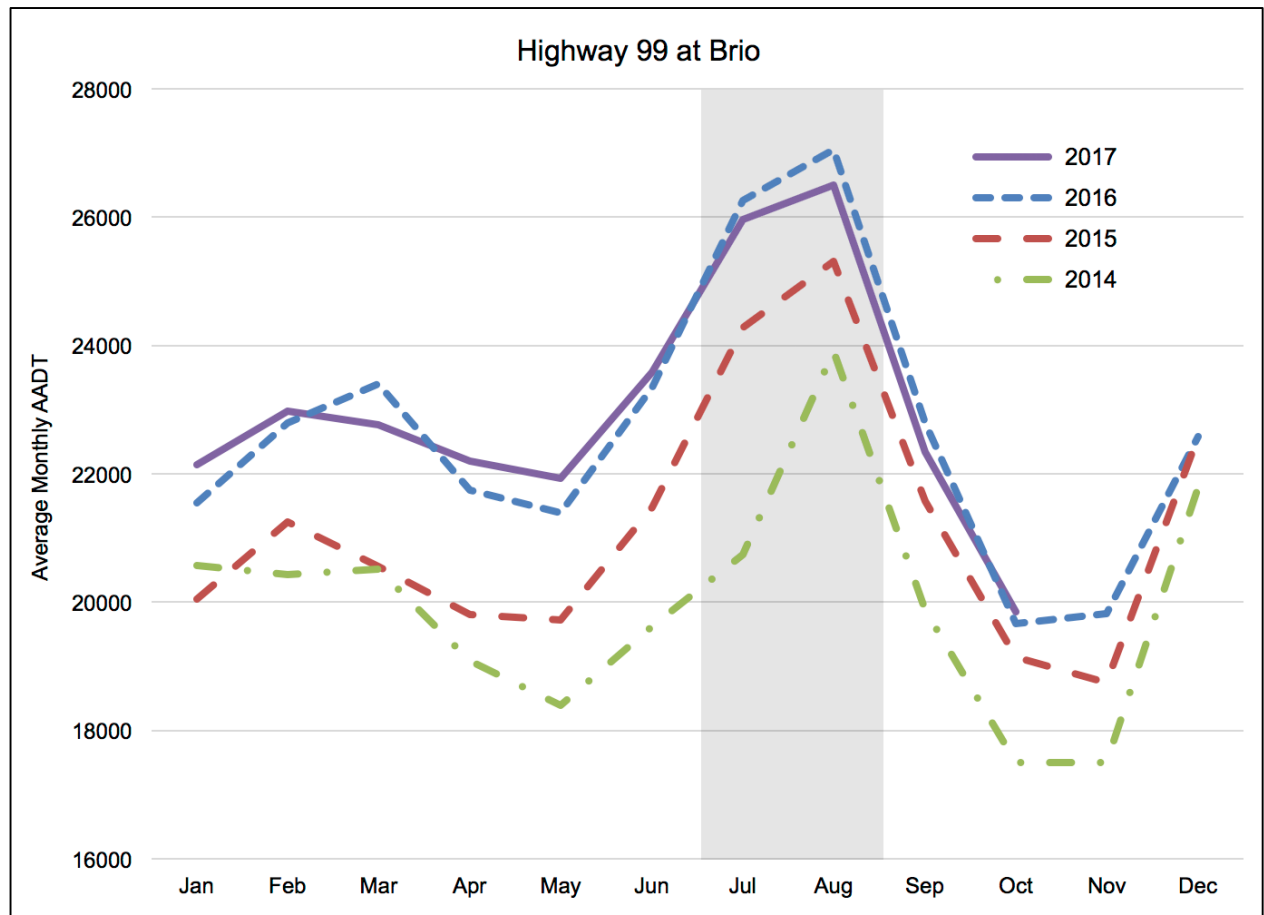
These comparisons indicate that summer 2017 was similar to summer 2016 in terms of activity, as measured by highway traffic and hotel occupancy. This means that observed differences in parking, transit use and other transportation services between this summer and last summer are likely due to the Transportation Action Plan rather than other external factors.

A comparison of traffic volumes also indicates that there were fewer local trips on the highway in summer 2017. Table 1.1 summarizes average daily traffic volumes at Brio and Function Junction. The difference between the two locations is due to trips that begin and/or end in Whistler, and there were fewer such local trips in July 2017 than in the previous year.

Table 1.1 – Highway 99 average daily traffic volumes, July 2016 and July 2017

Highway 99 at	July 2016		July 2017	
	Southbound	Northbound	Southbound	Northbound
Brio	12,970	12,920	13,070	13,160
Function Junction	5,650	5,900	6,970	6,910
<i>Difference</i>	<i>7,320</i>	<i>7,020</i>	<i>6,100</i>	<i>6,250</i>

Figure 1.1 – Highway 99 traffic at Brio, January 2014 through October 2017



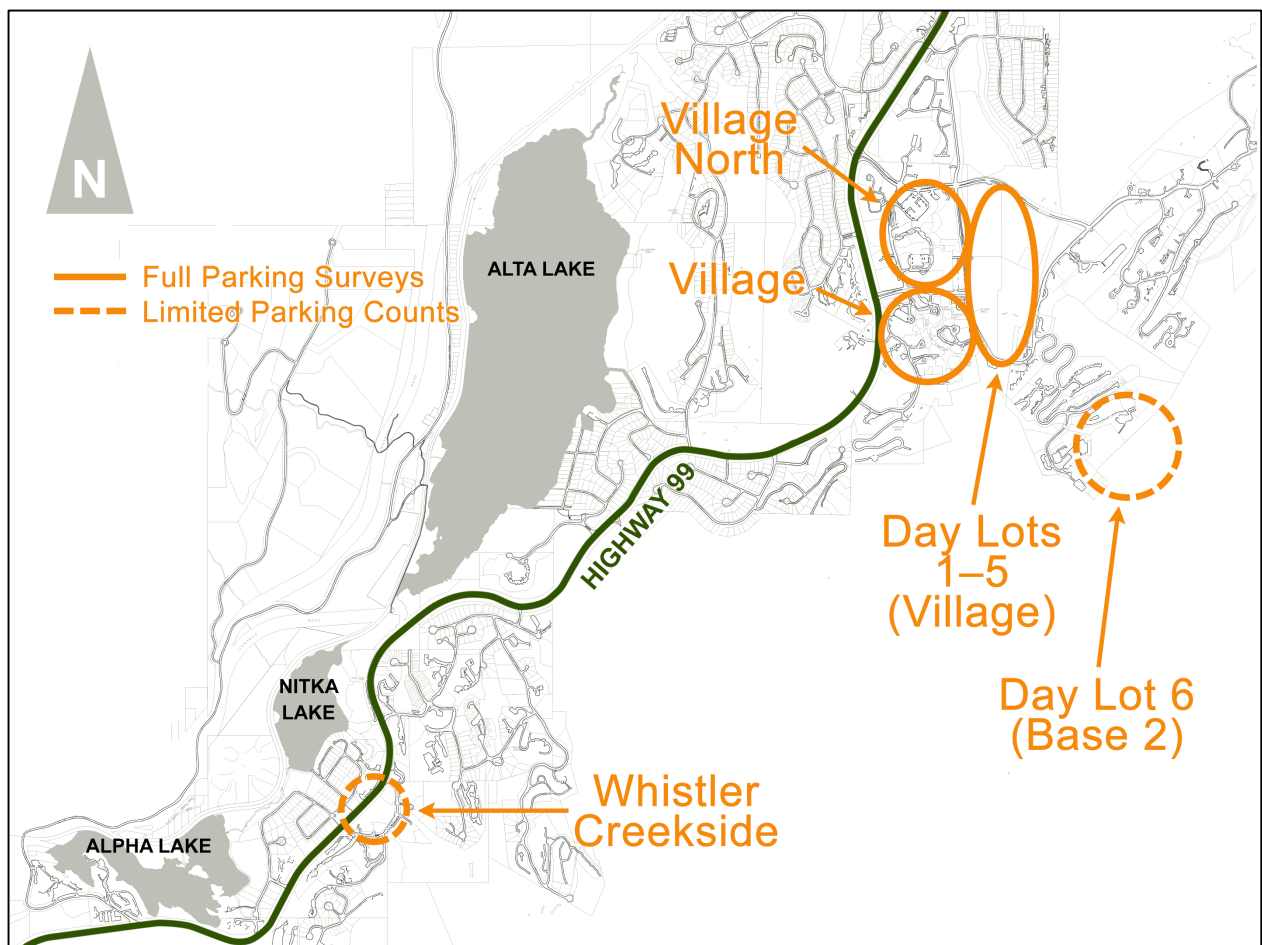
2 Parking

This report presents the results of parking surveys undertaken in summer 2017. These are compared to the results of similar parking surveys undertaken in summer 2016 to identify changes in parking usage and patterns that can be attributed to the Transportation Action Plan.

2.1 Parking Data

Parking surveys were undertaken in public and private lots in Whistler Village. Limited counts of parked vehicles and buses were also undertaken at Whistler Creekside and in Lot 6 at Base 2. These locations are illustrated in Figure 2.1.

Figure 2.1 – Parking survey locations, summer 2017



The scope of the surveys was limited to publicly-accessible parking, which is parking that any member of the public can use on a casual, non-reserved basis. This includes:

- 383 parking stalls in municipal parking lots and street parking in the Village, including parking on Main Street, at the Conference Centre, library and other locations. The parking lot at Marketplace is privately operated and was not included in the surveys.
- 1,737 parking stalls in Day Lots 1 through 5 in the Village, and 877 stalls in the Whistler Creekside parkade.
- Over 1,000 stalls in private parking lots in Whistler Village that are open to the general public.

2.1.1 Parking Inventory

Table 2.1 provides a summary of all publicly accessible parking locations in Whistler Village and Whistler Creekside during the summer, including municipal parking lots and street parking, as well as private lots accessible to the general public. The last column of the table indicates the facilities where parking surveys were conducted in summer 2017. Notes regarding the numbers in Table 2.1 include:

- Day Lot 5 is not paved, so the numbers of parking spaces indicated in Table 2.1 are estimated based on the area of the lot and observed parking patterns.
- The numbers of parking stalls in hotel lots that are available to the public varies depending on how the hotel allocates parking among general public parking and other uses such as guest parking, valet parking, employee parking and parking reserved for other uses.
- During the summer, only the surface deck and level P1 of the Creekside parkade were open every day, and on weekends level P2 was also open. The number of parking stalls available on weekends was 799 general purpose parking stalls plus 78 overheight stalls.

2.1.2 Parking Surveys

Parking surveys were undertaken in summer 2017 on a known peak weekend as well as a typical “near peak” weekend:

- Saturday and Sunday 5 and 6 August of the BC Day long weekend represent a peak weekend during the summer.
- Saturday and Sunday 27 and 28 August represent a “near peak” weekend, when there were no large events or holidays (it was the weekend after Crankworx and the weekend prior to the Labour Day weekend).

Table 2.1 – Inventory of publicly accessible parking, summer 2017

Location	Lot	Surface	Under-ground	Parking Stalls	2017 Survey
Village	Conference Centre surface	✓		74	✓
	Conference Centre underground		✓	153	✓
	Gateway visitors centre	✓		7	✓
	Gateway bus loop	✓		13	✓
	Village Green	✓		9	✓
	Sundial	✓		6	✓
				262	
	Pan Pacific Village Centre		✓	338	✓
	Blackcomb Lodge		✓	44	
	Hilton		✓	165	✓
	Westin		✓	337	✓
	Westin free 2-hour parking		✓	8	✓
	Pan Pacific Mountainside		✓	110	
				1,002	
Village North	Main Street	✓		81	✓
	Library		✓	20	✓
	Municipal hall	✓		24	✓
				125	
	Marketplace	✓		276	
	Brewhouse		✓	48	✓
	Town Plaza		✓	92	✓
	Delta		✓	47	✓
	Pinnacle		✓	78	✓
				541	
Day Lots (Village)	Day Lot 1	✓		209	✓
	Day Lot 2	✓		264	✓
	Day Lot 3	✓		297	✓
	Day Lot 4	✓		692	✓
	Day Lot 5	✓		275	✓
				1,737	
Upper Village	Blackcomb Way s/o Chateau	✓		25	
	Fairmont Chateau Whistler		✓	120	
	Four Seasons		✓	25	
	Le Chamois		✓	13	
				158	
Creekside	Levels 1, 2 and overheight		✓	877	✓
Total				4,702	

Two types of manual parking surveys were undertaken in summer 2017:

- **Occupancy:** Counts of the numbers of vehicles in parking lots were undertaken at regular intervals:
 - In municipal parking lots in the Village, counts were undertaken every hour from 10:00 am to 6:00 pm.
 - In Day Lots 1 to 5, counts were undertaken every two hours from 8:00 am to 6:00 pm. Counts were also undertaken at 4:00 a.m. on the two Wednesdays prior to the weekend counts to determine the number of vehicles parked overnight.
 - In private lots with publicly-accessible parking, counts were undertaken as frequently as every hour, or as little as once or twice a day in the case of some hotel lots where there was little change in parking during the day.
- **Duration and turnover:** Licence plate surveys were undertaken at 30-minute intervals from 11:00 am to 6:30 pm on Main Street (81 parking stalls) and in the surface lot at the Conference Centre (74 parking stalls plus motorcycle parking).

Data from the parking surveys was supplemented with data from the following sources:

- The municipality provided data regarding parking transactions in the Day Lots and municipal parking lots in the Village, plus numbers of monthly parking passes sold and counts of vehicles entering and exiting the Day Lots.
- Whistler-Blackcomb undertook daily counts of vehicles parked in the Creekside parkade, and commercial buses parked in Lot 6 at Base 2.

2.2 Parking Availability

Availability is a key concept in any discussion of parking. Availability refers to the number or percentage of unoccupied parking stalls that are available at any given time for a motorist to park in. Parking surveys typically measure occupancy, which is the number or percentage of parking stalls in a facility that are occupied at any given time. It is preferable, however, to consider availability rather than occupancy, as availability is what motorists looking for parking experience, and the lack of availability is what generates complaints from the visitors, residents and businesses.

Ensuring adequate availability should be a primary objective in managing parking facilities. The goal is to:

- Maximize the use of a valuable resource (parking) and maximize revenue.
- Maintain adequate availability of parking to attract visitors and customers, and positively affect their experience.
- Minimize or avoid negative impacts associated with parking, such as congestion and motorist frustration.

A general “rule of thumb” in the parking industry is that the optimum occupancy of a parking facility is 85%, which is equivalent to 15% availability. This is an appropriate target for street

parking and shorter-term lots such as those in the Village. For parking lots where people park for longer periods of time, such as the Day Lots, the target occupancy can be as high as 90%, which is equivalent to 10% availability. In any case, when occupancy exceeds 90% (meaning availability is less than 10%) it indicates a problem and a need for action to improve availability.

The 10% and 15% availability targets recognize that at any given moment the availability in a specific parking lot could be higher or lower than 10% or 15%. Parking surveys are typically conducted at one-hour intervals (sometimes at 30-minute intervals, and sometimes every two or more hours). This means that if a parking survey at 1:00 pm measured 15% availability and the next survey at 2:00 pm measured 15% availability, even though the actual availability between 1:00 and 2:00 pm could have been lower than 15% at times, availability was likely adequate for much of the hour.

Over time, data collected from parking surveys and other sources will help staff and decision makers assess the suitability of the 10% and 15% availability targets to conditions in Whistler. For example, it might be that during the winter a 5% availability target is appropriate for the Day Lots, as most people park for the day to go skiing, while during the summer there is greater turnover in the Day Lots and the 10% availability target would remain the appropriate target.

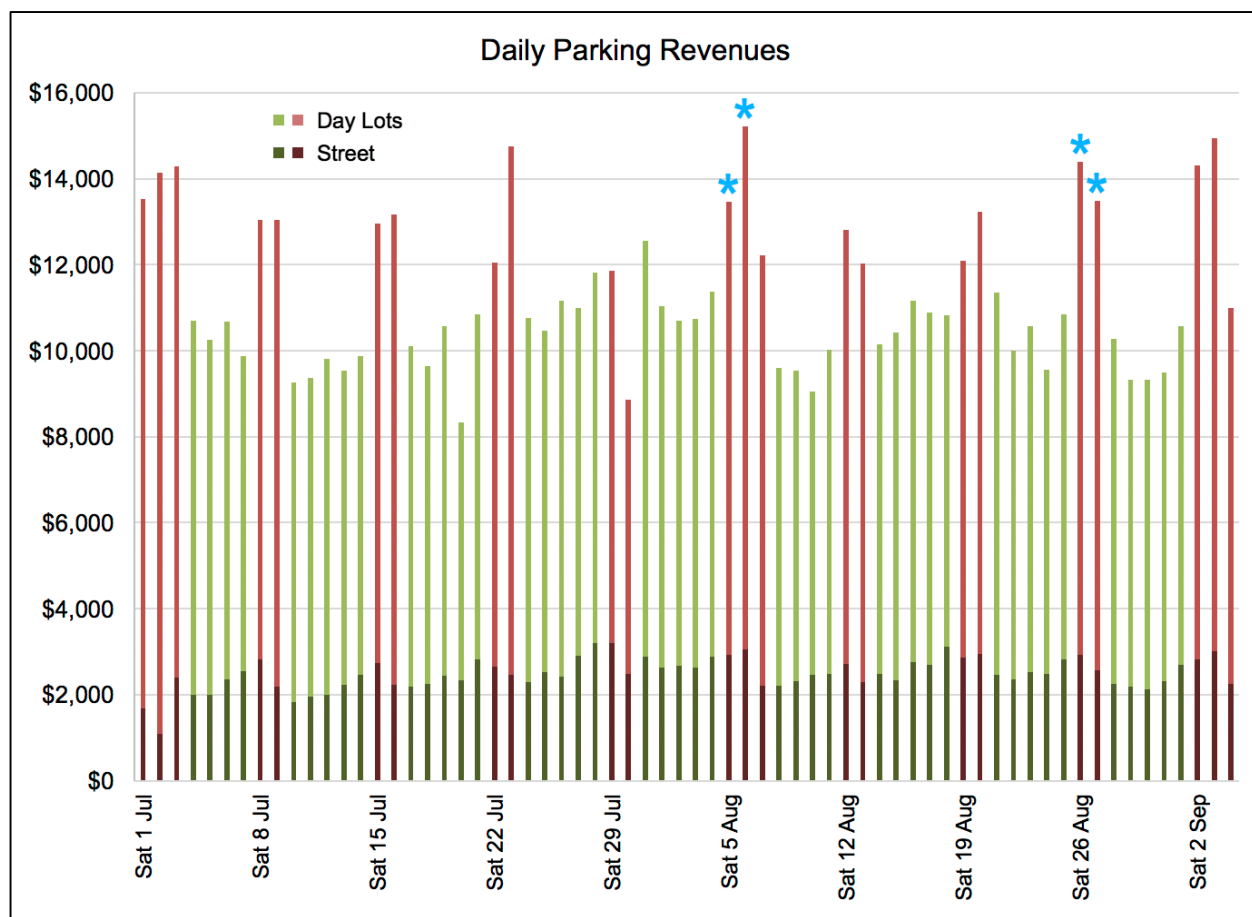
The other question that can be answered over time is on how many days is it acceptable for availability during peak times to be less than target levels. Roads and other transportation facilities are typically designed to accommodate “near peak” demands rather than the worst day of the year, and the same approach can be used in managing parking. Staff and decision makers may consider it acceptable for parking availability to be less than the target level during special events, holidays and long weekends, when residents and visitors are more likely to expect capacity conditions, provided that there is adequate availability on the remaining days.

2.3 Overall Results

Figure 2.2 indicates daily pay parking revenues from transactions in municipal parking lots in the Village and Day Lots during the summer from 1 July (Canada Day) through 4 September (Labour Day). Weekends and holidays are indicated in red, and weekdays are indicated in green. Days on which parking surveys were undertaken are indicated with blue asterisks:

- **Peak:** Saturday and Sunday 5 and 6 August represent peak conditions during the summer, as they were on the BC Day long weekend. Both days were sunny and warm, with temperatures in the low 30s, and were smoky due to wildfires in the BC interior. As Figure 2.2 indicates, municipal parking revenues were over \$13,000 on Saturday and over \$15,000 on Sunday, which was the highest-revenue day of the summer.
- **Near-peak:** Saturday and Sunday 26 and 27 August represent near-peak conditions, with over \$14,000 in municipal parking revenues on Saturday, and over \$13,000 on Sunday. Saturday and Sunday were sunny, with temperatures in the mid to high 20s.

Figure 2.2 – Village lots and Day Lot daily parking revenue, summer 2017



Major events during summer 2017 included the Ironman Canada event from 27 to 30 July, the Wanderlust festival from 3 to 6 August, and the Crankworx festival from 11 through 20 August. Day Lot 4 was closed during Ironman and Day Lot 2 was closed during Crankworx, and although the organizers reimbursed the municipality for the lost parking revenue, these reimbursements are not reflected in the parking revenues in Figure 2.2.

Figure 2.3 and Table 2.2 summarize peak parking occupancies on the four survey days. Significant results include:

- The 5/6 August long weekend represents peak conditions, and on both Saturday and Sunday the average peak parking occupancies for all Village lots exceeded the 85% target (equivalent to a 15% availability target). However, occupancies in the Day Lots remained below the 90% target, indicating that at all times there was adequate parking availability on the Day Lots.
- The 26/27 August weekend represents near-peak conditions. The average peak occupancies for all Village lots remained below the 85% target, although occupancies on Main Street were as high as 100%. The Day Lots remained below the 90% occupancy target, indicating that there was adequate parking availability.

Figure 2.3 – Peak parking occupancies, summer 2017

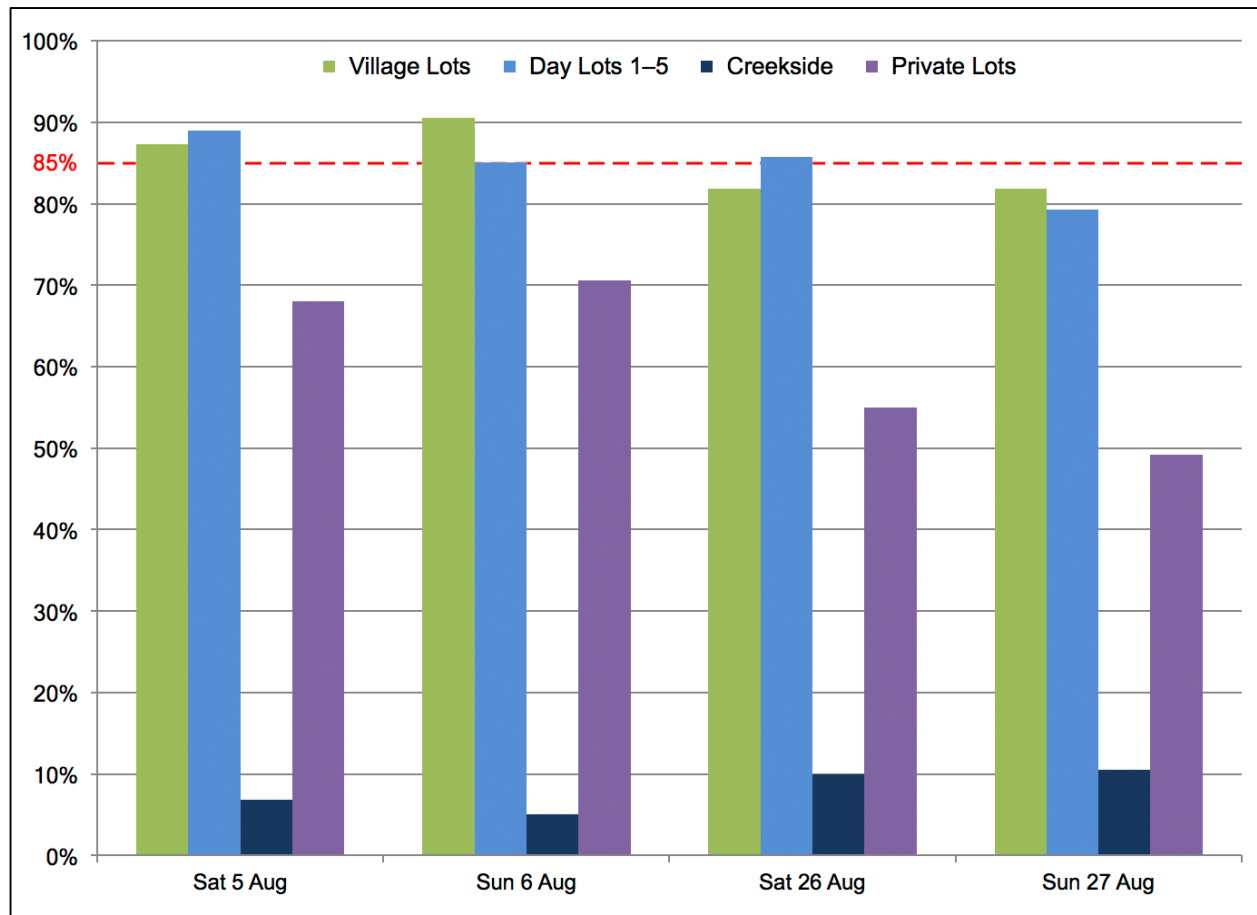


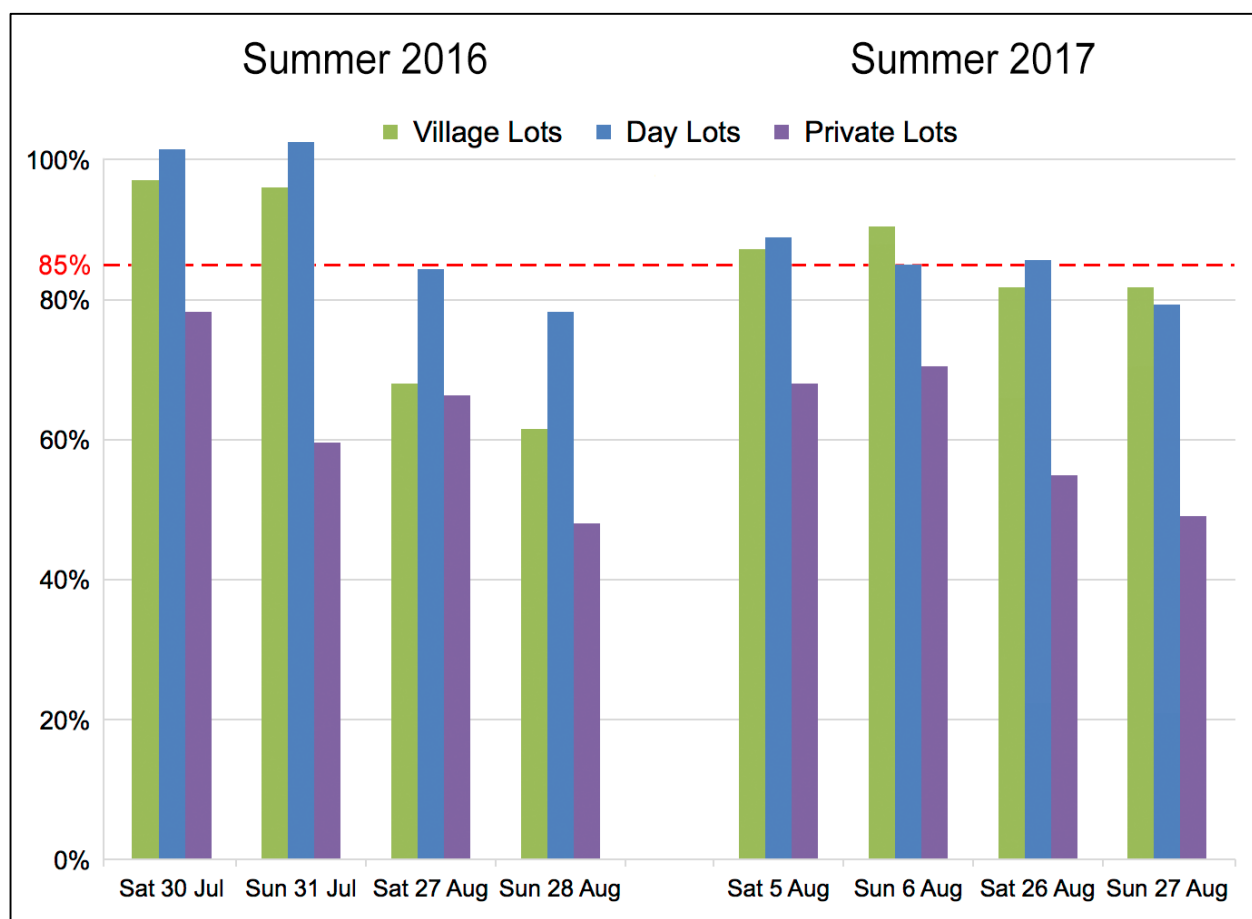
Table 2.2 – Peak parking occupancies, summer 2017

	Saturday 5 August	Sunday 6 August	Saturday 26 August	Sunday 27 August
Village:				
• Main Street	98%	100%	100%	100%
• Conference Centre	93%	93%	76%	77%
• Other Village	67%	75%	76%	87%
All Village	87%	90%	81%	81%
Day Lots 1-5	89%	85%	86%	79%
Creekside	7%	5%	10%	10%
Private lots	68%	71%	55%	49%

- Although it was free to park in Creekside, and there was free transit service to the Village, the Creekside parkade was almost empty every day, only reaching a maximum of 10.5% occupancy on 27 August.
- Comparable data are not available for Marketplace, but the operator of the parking lot reports that since introducing pricing (for parking more than 1 hour) parking availability has improved.

Figure 2.4 compares the results for summer 2017 with the results for summer 2016 for municipal and private lots in the Village and the Day Lots (data are not available for Creekside for summer 2016). The most notable difference is the reduction in peak parking occupancies on the BC Day long weekend. In summer 2016, the overall occupancy in the Village was almost 100%, and the Day Lots exceeded 100%, which indicates very little parking availability. In summer 2017, there was good parking availability in the Village and particularly the Day Lots on the long weekend.

Figure 2.4 – Peak parking occupancies, summer 2016 and summer 2017



2.4 Day Lot Results

There is a total of 1,737 parking spaces available in the Day Lots in the Village (Lots 1 through 5) in the summer. Figure 2.5 illustrates peak parking occupancies in the Day Lots on the four survey days. Significant results include:

- Occupancies only exceeded 90% in the \$10 lots (Lots 1 and 2 on all survey days, and Lot 3 on the long weekend). A key reason for this is the number of monthly parking passes sold during the summer (discussed in detail below).
- Occupancy remained below 90% in the \$5 lots (Lots 4 and 5) even on the long weekend.

Figure 2.5 – Day Lot peak parking occupancy by lot, summer 2017

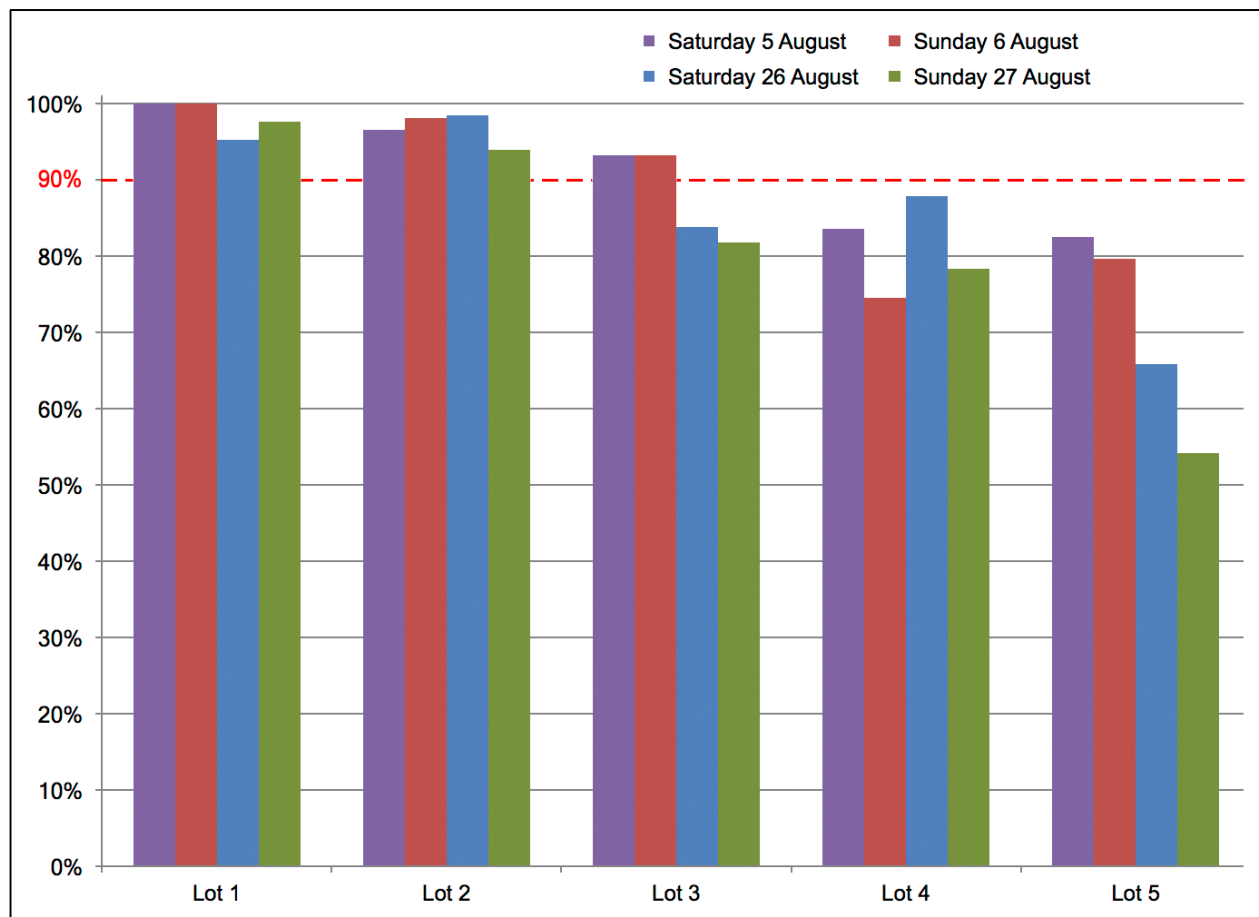


Table 2.3 compares the number of days during summer 2016 and summer 2017 when the Day Lots filled to capacity. The Day Lots filled to capacity on 24 days in summer 2016, including 9 Saturdays and 9 Sundays (out of 10 weekends in the summer). In contrast, in summer 2017 the Day Lots were full on only 8 days, and six of those days were during events when some lots were closed (Lot 4 was closed during Ironman, and Lot 2 was closed during Crankworx). On only two non-event days (one Saturday and one Sunday) did the Day Lots fill to capacity in summer 2017.

Table 2.3 – Number of days Day Lots were full, summer 2016 and summer 2017

	Summer 2016	Summer 2017	
Friday	6	1	1 Ironman
Saturday	9	4	1 Ironman + 2 Crankworx
Sunday	9	3	1 Ironman + 1 Crankworx
Totals	24	8	3 Ironman + 3 Crankworx

The difference in the number of days that the Day Lots were full to capacity can be attributed to pricing in Lots 4 and 5 rather than a change in the number of parking stalls. Although there were 58 additional parking stalls in Lot 4 created by removing commercial buses, this increase was

offset by a reduction of 76 parking stalls in Lot 3 as a result of reconfiguring the parking lot to accommodate oversized vehicles.

Last year, Lots 4 and 5 were free and they were full on weekends by 10:00 am. During events such as Ironman and Crankworx, the free lots were full as early as 7:30 am. This year, Lots 4 and 5 only filled on two days that weren't event-related, and on those days they didn't fill until the early afternoon (1:00 pm and 1:30 pm). Figure 2.6 illustrates occupancies in the Day Lots in summer 2017 by time of day, and the most significant feature of this chart is the absence of the early morning demand for free parking seen in previous years. These results are echoed in Figure 2.7, which illustrates traffic into and out of the day lots over a 24-hour period, and does not begin to show significant activity until late morning.

Figure 2.6 – Day Lot parking occupancy by time of day, summer 2017

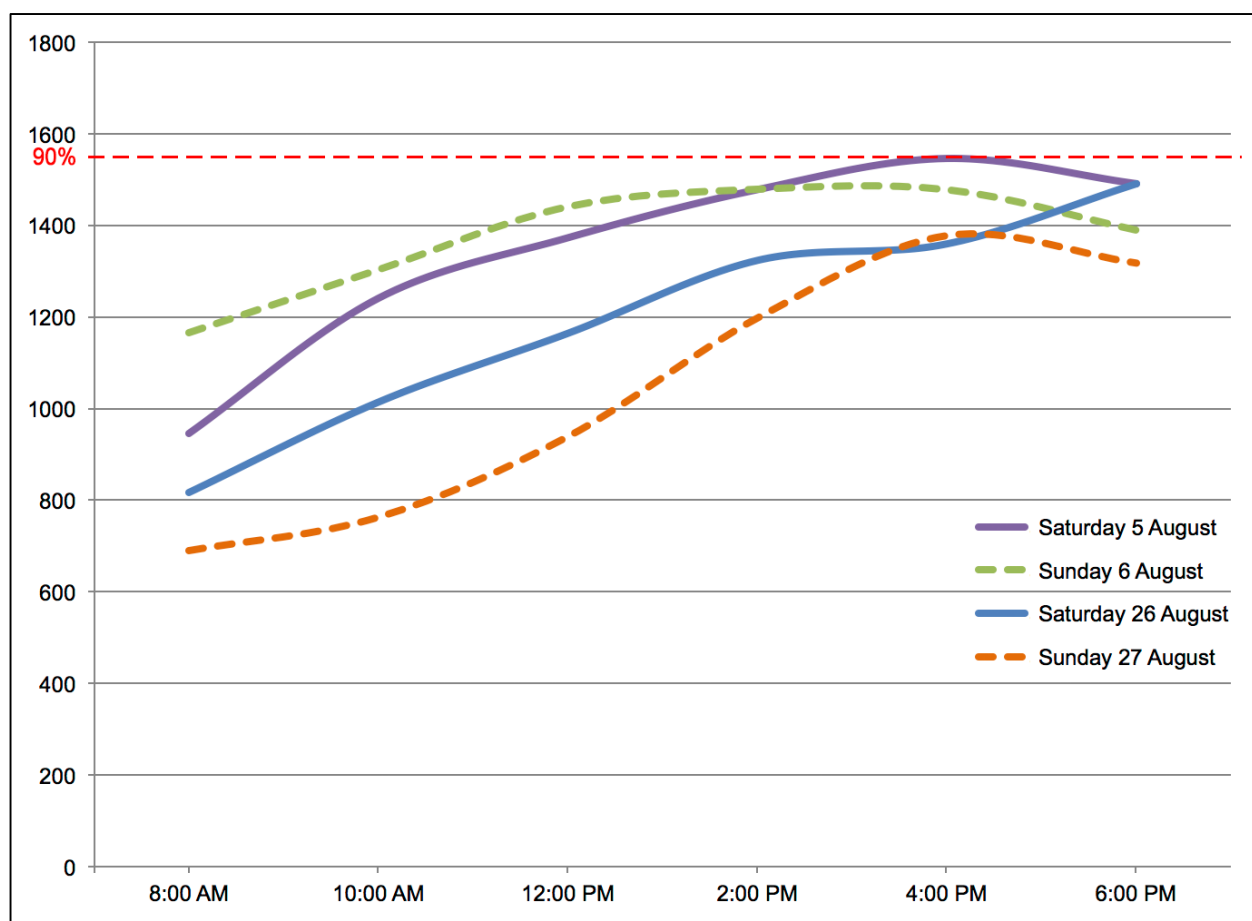
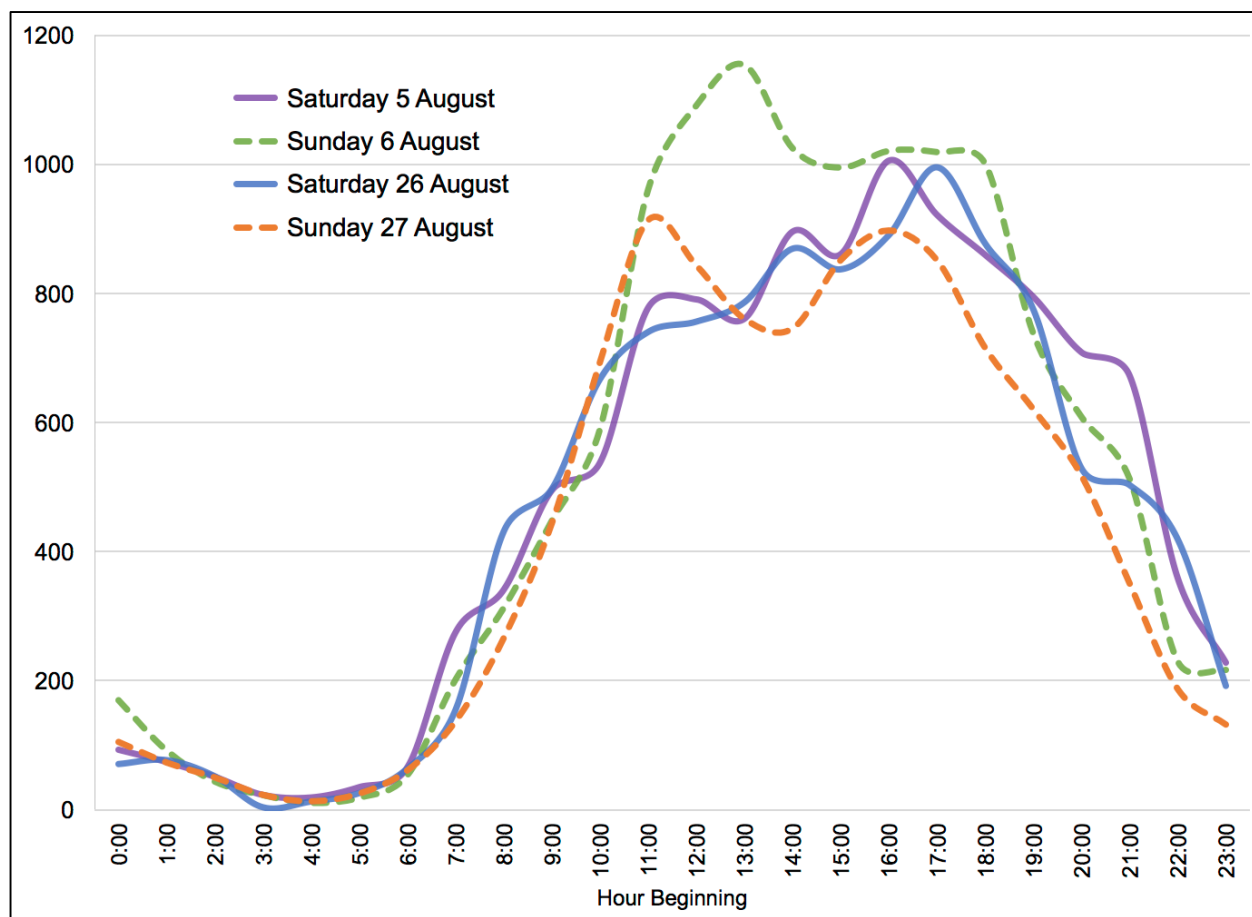


Figure 2.7 – Day Lot traffic by time of day, summer 2017



One of the factors affecting occupancy in the Day Lots is the numbers of parking passes sold in 2017, which are summarized in Table 2.4. Orange highlighting indicates passes that could be used for part or all of summer.

On 1 July, the 3-month and 6-month parking passes were discontinued. The price for 1-month general parking passes (valid in Lots 1, 2 and 3) was increased to \$50 per month. New passes for employees and residents to park in Lots 4 and 5 were available at \$30 per month.

A significant number of 1-month passes were sold in July and August. There are only 770 parking stalls in Lots 1 through 3, and with several hundred parking passes in circulation it is not surprising that occupancies in Lots 1, 2 and 3 exceeded 90%, as illustrated in Figure 2.5.

Even at an increased price of \$50 per month, many people clearly consider a parking pass a good deal. For someone who drives to work five days a week, a total of 20 days per month, the average daily cost of parking is only \$2.50. More importantly, once someone has bought a parking pass they are motivated to drive and park as much as possible, to get their money's worth. This creates an incentive that is counter to the municipality's objective of shifting trips to transit and other modes.

Table 2.4 – Parking passes sold from January to August 2017

2017	General Parking Lots 1–3			Employees/Residents Lots 4–5	
	1 Month	3 Months	6 Months	1 Month	2 Months
January	397	40	2		
February	346	29	4		
March	427	22	5		
April	313	8	3		
May	222	20	11		
June	383	101	32	58	123
July	446			132	101
August	355			102	0
Totals	2,889	220	57	292	224

During the summer, overnight parking is permitted in all Day Lots in the Village, to a maximum of 24 hours (overnight camping is prohibited). This represents a change from previous years when the time limit for overnight parking was 72 hours.

Table 2.5 compares the numbers of vehicles parked overnight midweek during summer 2016 and summer 2017, surveyed on Wednesday mornings at 4:00 am. There were 141 vehicles parked in the early morning of 23 August, representing 8% of capacity of the Day Lots. The result for 2 August is an anomaly, caused by wildfires that closed the highway beyond Lillooet, encouraging many people who had planned to travel through on Highway 99 to remain in Whistler instead.

Table 2.5 – Overnight parking in Day Lots, summer 2016 and summer 2017

	Wednesday 24 August 2016 4:00 am	Wednesday 2 August 2017 4:00 am	Wednesday 23 August 2017 4:00 am
Lot 1	7	136	14
Lot 2	5	64	17
Lot 3	6	118	37
Lot 4	43	140	38
Lot 5	28	80	35
Totals	89	538	141

There are many reasons why people park overnight in the Day Lots, including leaving their cars while they undertake an overnight hike, and to avoid the cost of hotel parking.

2.5 Village Results

This section presents the results of the parking surveys in the Village, including parking lots and street parking operated by the municipality, and publicly-accessible parking in hotels and other private facilities. Parking data is not available for Marketplace, which is privately-operated, and therefore Marketplace parking is not included in the results presented below.

2.5.1 Municipal Parking in the Village

There is a total of 383 parking stalls in municipal lots and street parking in the Village. Figure 2.8 illustrates the total occupancy in all Village municipal lots over the four survey days, and Table 2.6 summarizes peak occupancies on each day. On the BC Day long weekend (5 and 6 August), the total occupancy in the Village was at or over 85% for only part of the day. Peak occupancies were 100% in all lots in the Village except the lot at the municipal hall. In contrast, on the 26/27 August weekend, which represents near-peak conditions, total occupancies were well below 85% and only the smaller municipal lots reached 100% occupancy.

Figure 2.8 – Village municipal lot parking occupancy by time of day, summer 2017

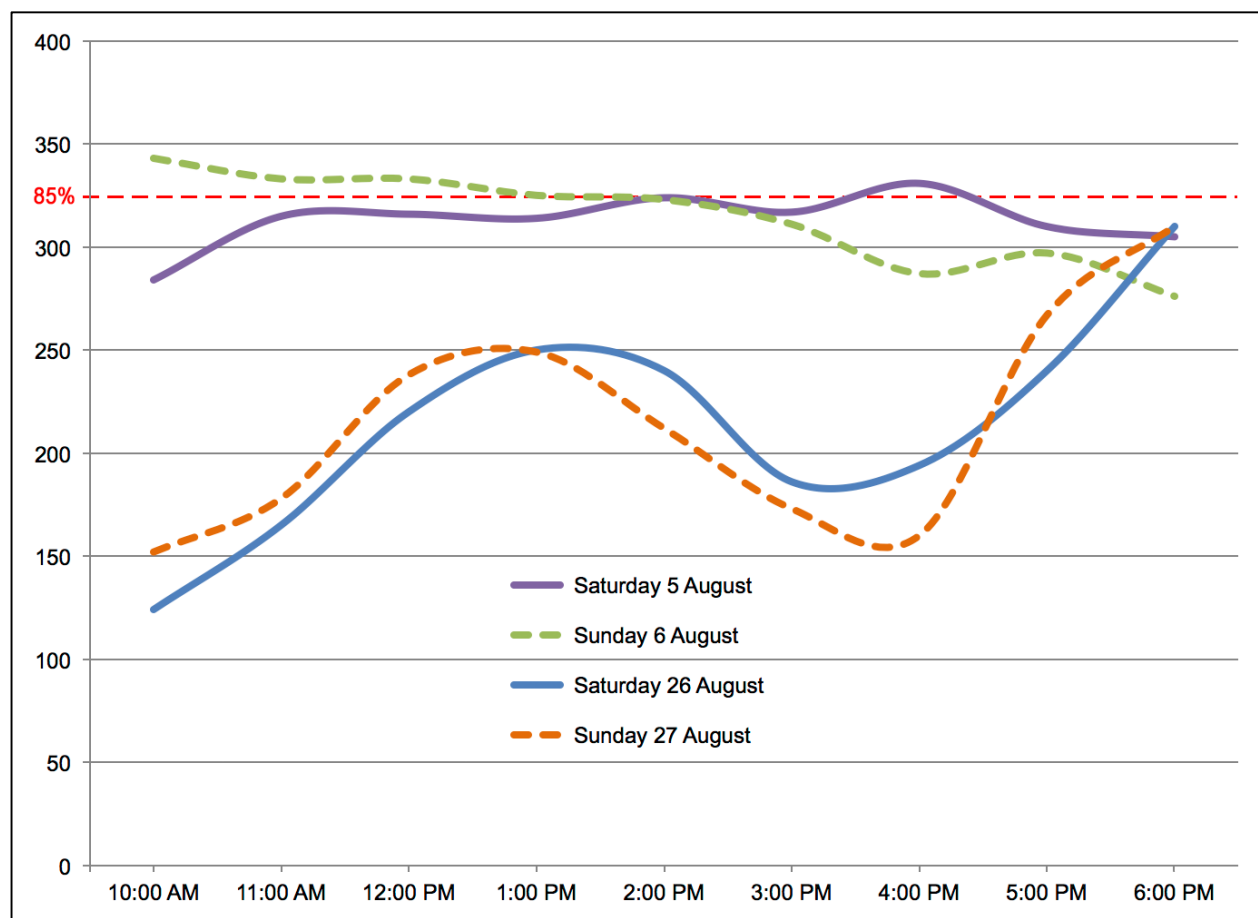


Table 2.6 – Village municipal lot peak parking occupancies, summer 2017

		Saturday 5 August	Sunday 6 August	Saturday 26 August	Sunday 27 August
Main Street		98%	100%	100%	100%
Library		100%	100%	95%	100%
Municipal hall		42%	63%	46%	79%
Conference Centre	Surface	99%	99%	94%	97%
	Underground	93%	96%	67%	67%
Credit union		100%	100%	100%	100%
Gateway loop		62%	77%	92%	92%
Village Green		100%	100%	100%	100%
Sundial		100%	100%	100%	100%
All Village municipal lots		87%	90%	81%	81%

Figure 2.9 provides a closer look at parking occupancies on Main Street, where there is a total of 81 parking stalls:

- Average occupancies over the entire day (from 11:00 am to 6:30 pm) ranged from 77% on Saturday 26 August to 78% on both Sundays (6 and 27 August) to a high of 83% on Saturday 5 August.
- The parking demand was highest on Saturday 5 August on the long weekend, when the occupancy exceeded 85% two-thirds of the time.

The time limit for parking on Main Street is 2 hours, reduced from 4 hours in previous years. The price is \$1.00 for the first hour, and increases to \$2.00 for the second hour to encourage shorter-term parking. Table 2.7 provides a summary of the observed durations of parking on Main Street, and there are several significant findings:

- The average parking duration was 1 hour and 13 min. Despite the reduction in the time limit from 4 hours to 2 hours, the average parking duration is only 4 minutes less than in the previous summer.
- There were many vehicles parked beyond the 2-hour time limit, as indicated in orange in Table 2.7. Overall, 10% of the time parking stalls were occupied by vehicles parked overtime. If these overtime parkers had been eliminated, the target 15% parking availability would have been achieved almost all of the time.
- One or more vehicles were parked all day (for 8 or more hours) each day that the parking surveys were conducted, as indicated in orange in the third column in Table 2.7. The plus sign means that the vehicles were already there when the parking surveys began at 11:00 am and remained there after the parking surveys ended at 6:30 pm.

Figure 2.9 – Main Street parking occupancy, summer 2017

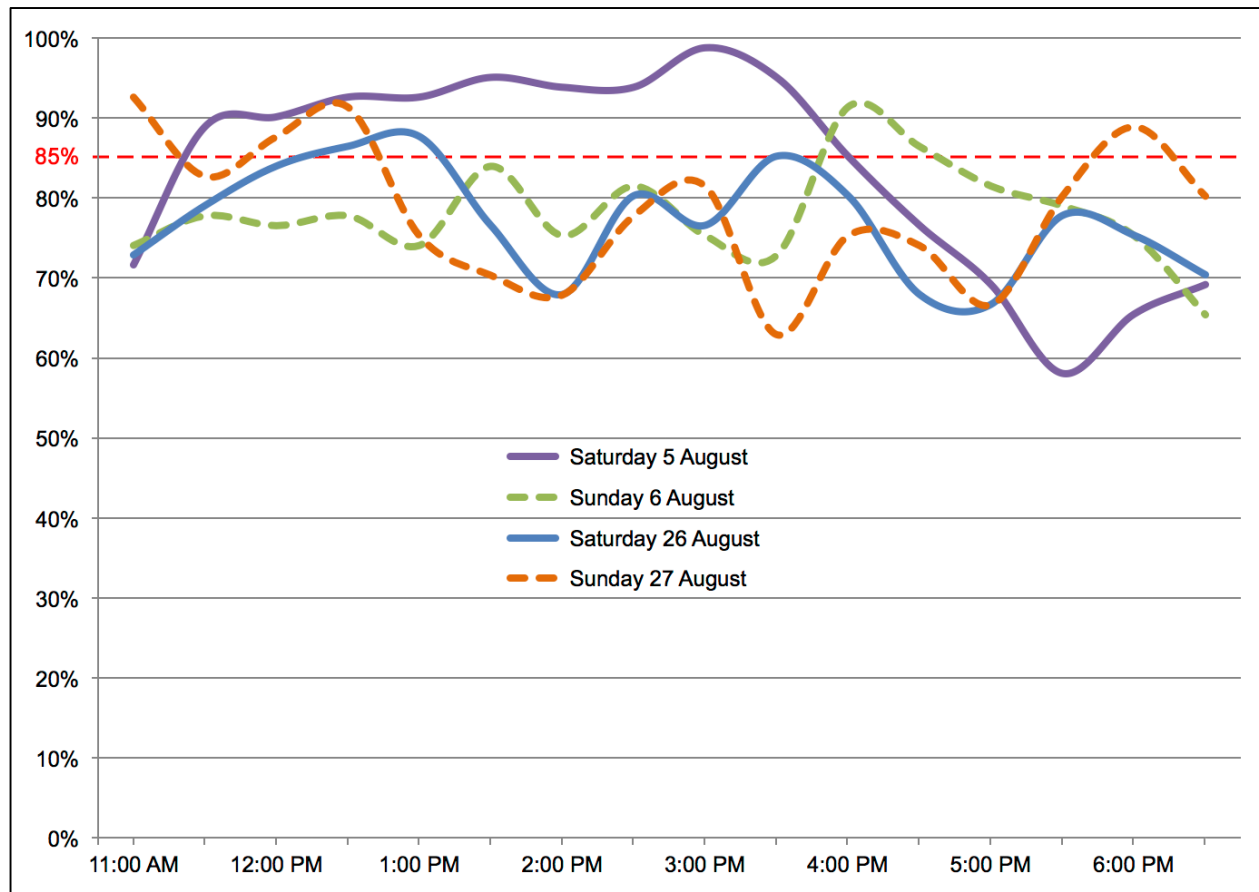


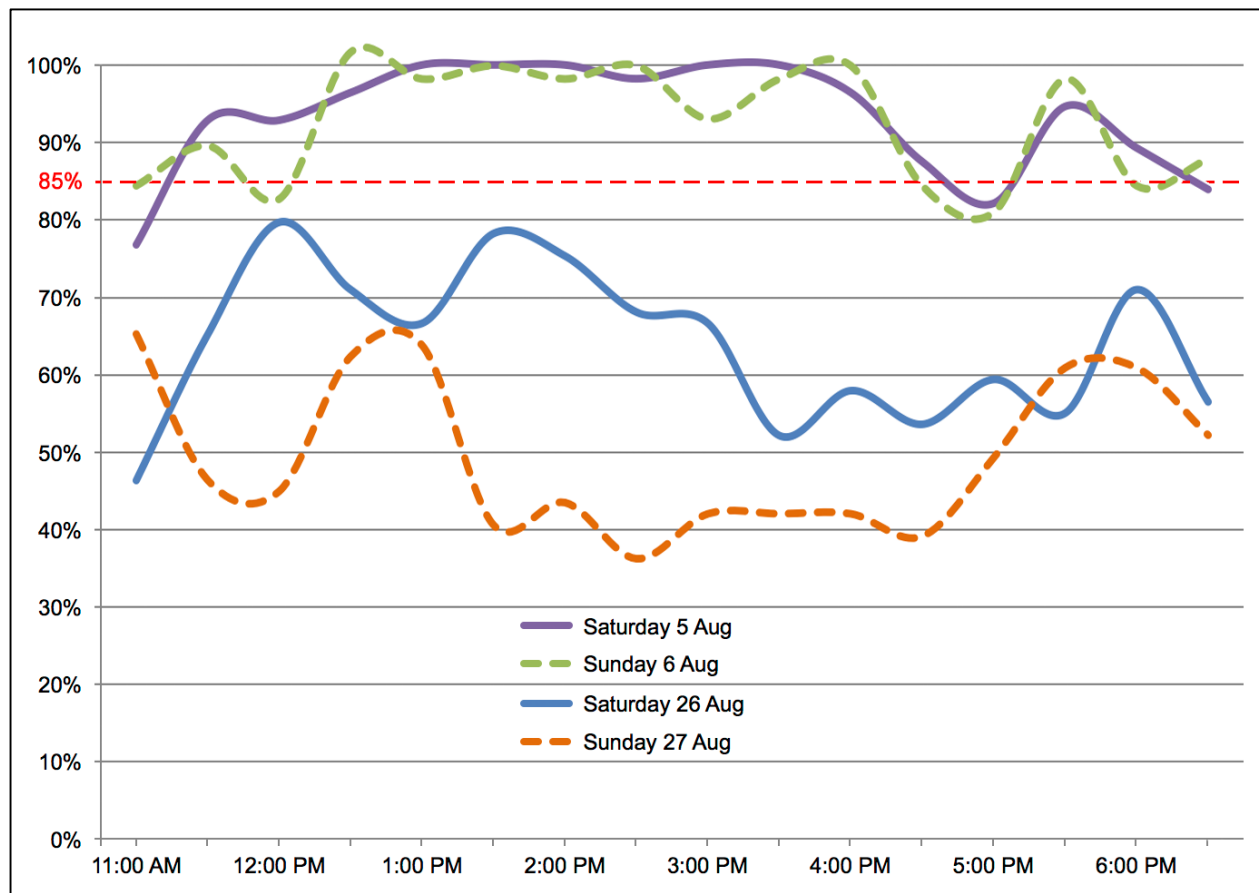
Table 2.7 – Main Street parking duration, summer 2017

	Duration		Occupancy by Duration			
	Average	Maximum	0–2 hours	2.5 hours	3+ hours	Empty
Saturday 5 August	1 hr 14 min	8.0+ hr	73%	3%	7%	17%
Sunday 6 August	1 hr 14 min	8.0+ hr	68%	3%	7%	22%
Saturday 26 August	1 hr 15 min	8.0+ hr	57%	4%	6%	23%
Sunday 27 August	1 hr 10 min	8.0+ hr	69%	3%	6%	22%
Average all days	1 hr 13 min	8.0+ hr	69%	3%	7%	21%

Figure 2.10 illustrates parking occupancies in the surface parking lot at the Conference Centre, where there is a total of 74 parking stalls (including four stalls for persons with disabilities, but not including the motorcycle parking area):

- Average occupancies over the entire day (from 11:00 am to 6:30 pm) ranged from 49% on Sunday 27 August to 64% on Saturday 26 August to a high of 93% on the Saturday and Sunday of the long weekend (5 and 6 August).
- The parking demand exceeded 85% almost all of the time on the long weekend.

Figure 2.10 – Conference Centre surface lot parking occupancy, summer 2017



The time limit for parking in the surface lot at the Conference Centre is 2 hours, reduced from 4 hours in previous years. Table 2.8 provides a summary of observed parking durations:

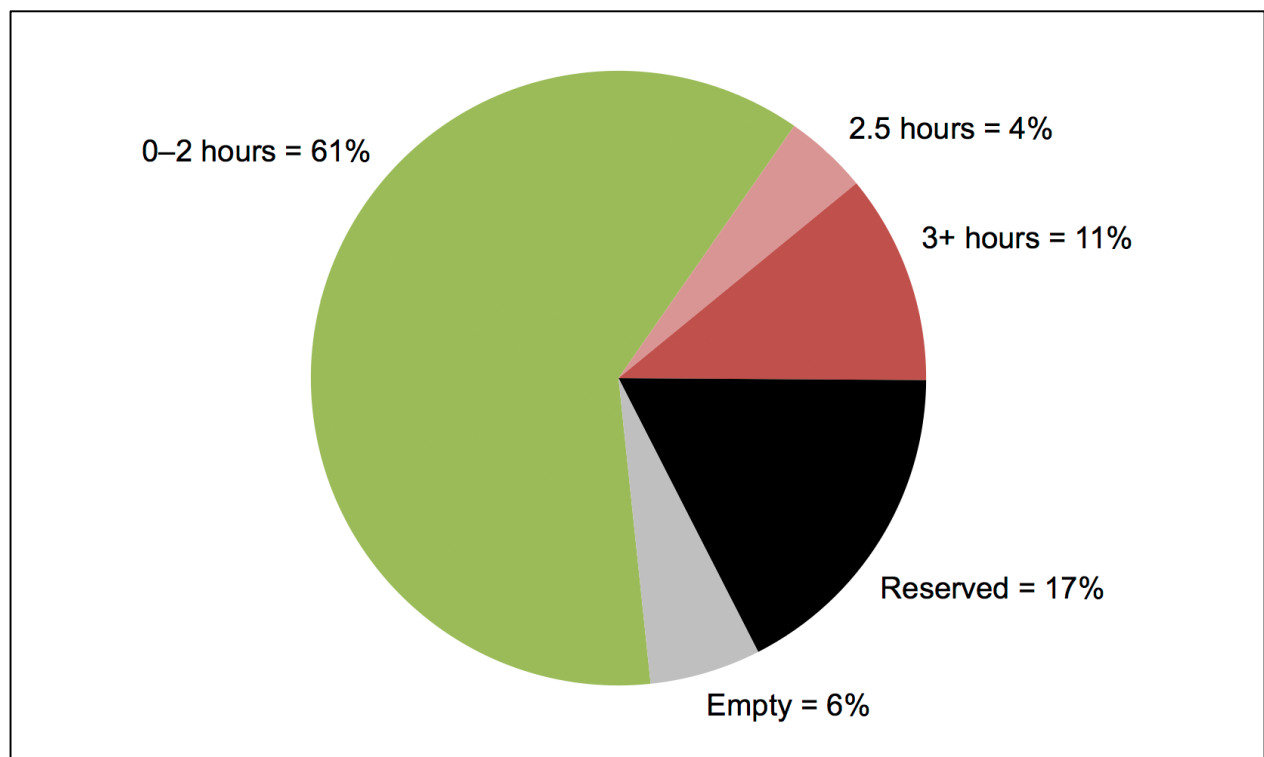
- The average parking duration was 1 hour and 22 minutes, which was 3 minutes more than the previous summer.
- A significant number of vehicles were parked in the surface lot beyond the 2-hour time limit. Overall, 13% of the time parking stalls were occupied by vehicles parked overtime.
- One or more vehicles were parked all day (for 8 or more hours) each day that the parking surveys were conducted.

Table 2.8 – Conference Centre surface lot parking duration, summer 2017

	Duration		Occupancy by Duration			
	Average	Maximum	0–2 hours	2.5 hours	3+ hours	Empty
Saturday 5 August	1 hr 28 min	8.0+ hr	75%	5%	13%	7%
Sunday 6 August	1 hr 31 min	8.0+ hr	73%	6%	14%	7%
Saturday 26 August	1 hr 19 min	8.0+ hr	54%	3%	7%	36%
Sunday 27 August	1 hr 7 min	8.0+ hr	44%	2%	3%	51%
Average all days	1 hr 22 min	8.0+ hr	63%	4%	9%	24%

Another issue at the Conference Centre was that on the BC Day long weekend some of the parking stalls were reserved for the Wanderlust festival (the festival organizers paid the municipality for the reserved stalls). Although 9 stalls were reserved for Wanderlust, up to 13 stalls were marked reserved and were not available for public parking. As illustrated in Figure 2.11, the 13 reserved stalls eliminated 17% of the capacity of the Conference Centre parking lot over the long weekend, in addition to the 15% of stalls that were occupied by overtime parkers. The result was that parking availability in the Conference Centre surface lot was significantly less than 15% most of the weekend, and close to zero much of the time.

Figure 2.11 – Conference Centre surface lot parking occupancy, 5 and 6 August 2017



2.5.2 Private Lots in the Village

A total of 1,148 parking stalls were surveyed in private parking lots with publicly-accessible parking:

- Hotels – Pan Pacific Village Centre/Peak Lodge, Pan Pacific Mountainside, Westin, Hilton, Blackcomb Lodge, Pinnacle and Delta.
- The Brewhouse lot (48 stalls).
- The Town Plaza lot (92 stalls).

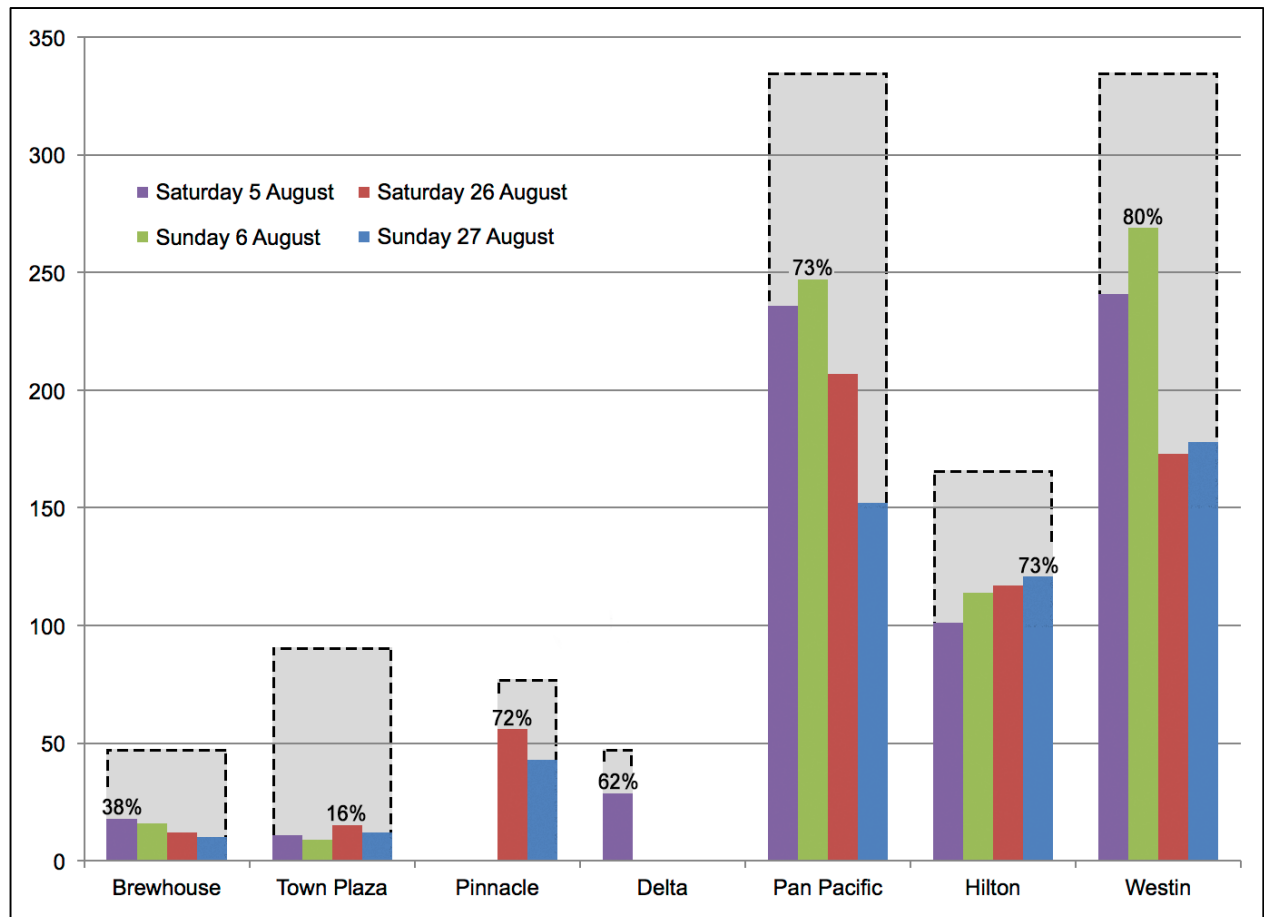
The Marketplace parking lot is not included in the figures in this section.

Prices in private parking lots are generally high. Rates range from \$2.00 to \$4.25 per hour, from \$15 to \$25 per day, and up to \$42.50 for 24 hours. The exception is the Pan Pacific Village Centre/Peak Lodge lot where parking costs \$8 per day, which is \$2 less than Day Lots 1 through 3, and \$3 more than Lots 4 and 5.

Figure 2.12 summarizes peak daytime occupancies in private parking lots on the four survey days in summer 2017. The results indicate that during the daytime parking is always available in publicly-accessible private parking lots in the Village:

- Peak parking occupancies in hotels ranged from 62% to 80%.
- The total number of available parking stalls in the hotels that were surveyed ranged from 255 to 460 stalls.
- Occupancies were quite low in the Brewhouse and Town Plaza lots. One likely reason for this is that neither of these underground lots are well signed or prominently identified, and are likely overlooked by many motorists.

Figure 2.12 – Private lots peak daytime parking occupancies, summer 2017



3 Other Transportation Actions

This section presents the results of other actions implemented as part of the Transportation Action Plan, including free transit service, bicycle valet parking, and relocated parking for commercial buses.

3.1 Free Transit Service

Transit service on all bus routes was free on Saturdays, Sundays and holidays from Canada Day (1 July) through Labour Day (4 September). Transit service is free year-round on route 5 (the Upper Village shuttle) and route 8 (the Lost Lake shuttle), so in practice the change to free transit affects only routes 1, 2, 6 and 7.

The free transit service was a continuation of the successful pilot project in summer 2016, when transit was free until 6/8:00 pm on six Saturdays from the BC Day long weekend through to Labour Day. Average Saturday ridership increased by 50% during the pilot project, and more than 80% of survey respondents who used the free transit service were long-term residents who owned vehicles. Common requests after the pilot project concluded were to extend the free service to Sundays and holidays during the summer, and after 8:00 pm.

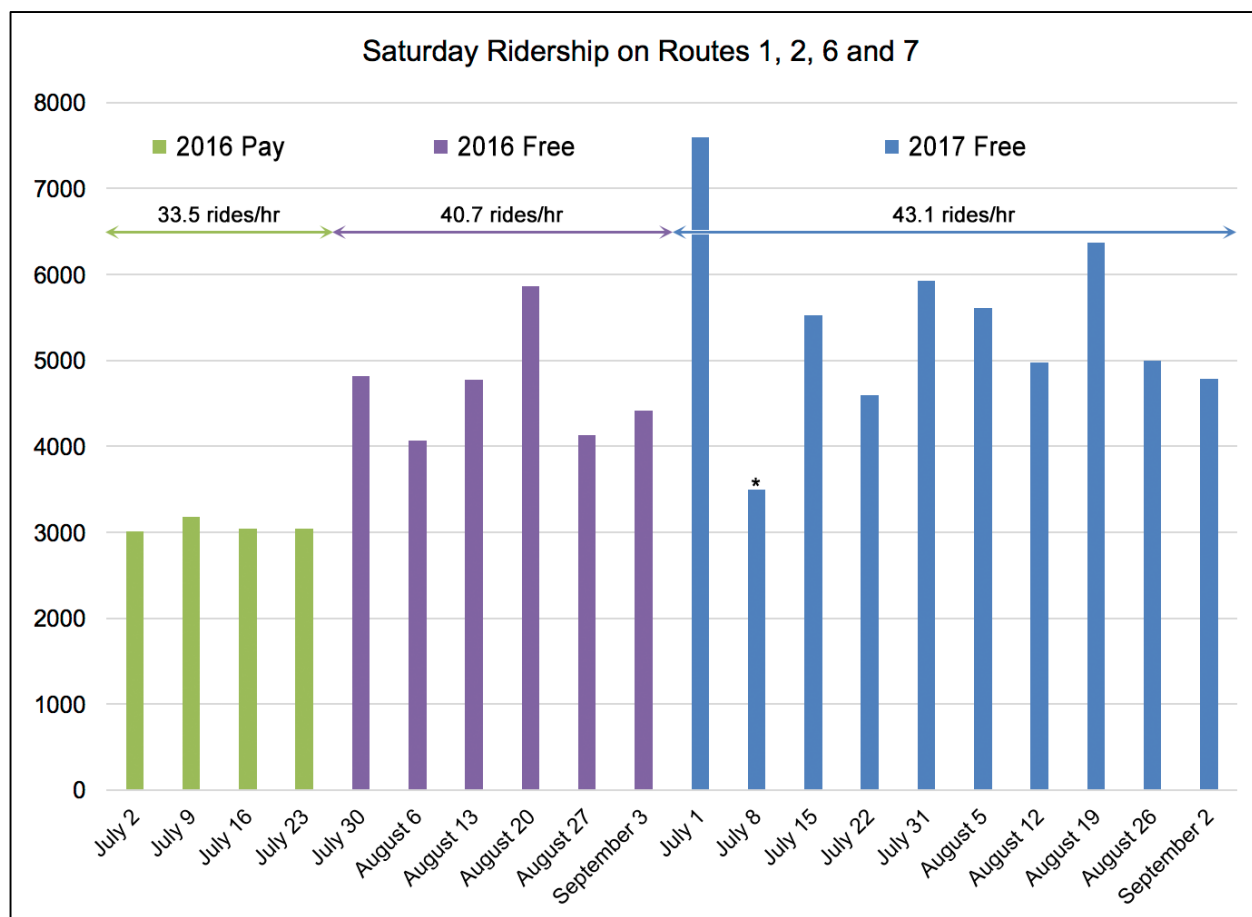
Table 3.1 summarizes average daily ridership in summer 2016 and summer 2017, broken down by Saturdays, Sundays, holidays and weekdays, and by paid and free transit. The most significant result is the increase in ridership on Saturdays, from just over 3,000 rides per day in the first part of summer 2016 before free transit was introduced, to an average of 5,400 rides per day in summer 2017, amounting to an increase of 77%. It is also interesting to note that average weekday ridership was 9% higher in 2017 than in 2016, suggesting that people trying the free service on weekends continued to use transit on weekdays as well.

Table 3.1 – Average daily ridership on transit routes 1, 2, 6 and 7, summer 2017

	Summer 2016		Summer 2017	
	Pay	Free	Pay	Free
Saturday	3,070	4,680		5,390
Sunday	2,970			4,650
Holiday	2,060			3,930
Weekday	3,110		3,390	

Figure 3.1 summarizes Saturday ridership on routes 1, 2, 6 and 7 during summer 2016 and summer 2017 (an asterisk is attached to the results for 8 July 2017 to indicate that the data were incomplete for this day). In addition to the increase in numbers of rides, rides per hour also increased from summer 2016 to summer 2017, indicating more passengers on each bus.

Figure 3.1 – Saturday transit ridership, summer 2016 and summer 2017



The free transit service was so popular that on many occasions buses were filled to capacity and were not able to pick up people further along the route. The majority of “pass-ups” (so-called because the bus “passes up” people waiting at the bus stop) occurred between Whistler Creek and the Village, and many of these pass-ups involved cyclists who were left behind because the bike rack on the bus was already full.

While pass-ups were a particular problem on summer weekends when transit was free, they also occur on weekdays, again most often between Whistler Creek and the Village. In total, a reported 561 people were passed up by buses in summer 2017. This indicates that there is a need for additional transit service in the summer between Whistler Creek and the Village, on both weekdays and weekends.

3.2 Bicycle Valet Parking

Recognizing that concerns regarding bicycle theft are a significant deterrent to cycling, the municipality offered a complimentary bicycle valet parking service to encourage people to travel to the Village by bicycle. The service operates similar to a coat check service. Cyclists check their bicycles with an attendant, and are issued numbered tickets that they later use to reclaim their

bicycles. As shown in Figure 3.2, a secure fenced area is provided for bicycle storage, and is supervised by at least one attendant at all times.

The bicycle valet service operated every Sunday during the summer and six of ten Saturdays. A total of 1,385 bicycles were checked in, averaging 87 bicycles per day. The average parking duration was 1 hour and 23 min. The service operated at three locations:

- At the farmer's market in the Upper Village on Sundays and on Saturday 1 July, averaging 107 bicycles per day.
- At Olympic Plaza in Village North on two Saturdays, averaging 78 bicycles per day.
- In the plaza in front of the library on three Saturdays. Usage was lower than expected, averaging only 18 bicycles per day.

Figure 3.2 – Bicycle valet parking, summer 2017



As indicated in Table 3.2, most people who used the bicycle valet parking were from Whistler and Metro Vancouver. The remainder were visitors from further away, and very few were from Pemberton and Squamish. Common requests were for later hours of operation, and for the service to be available more days of the week.

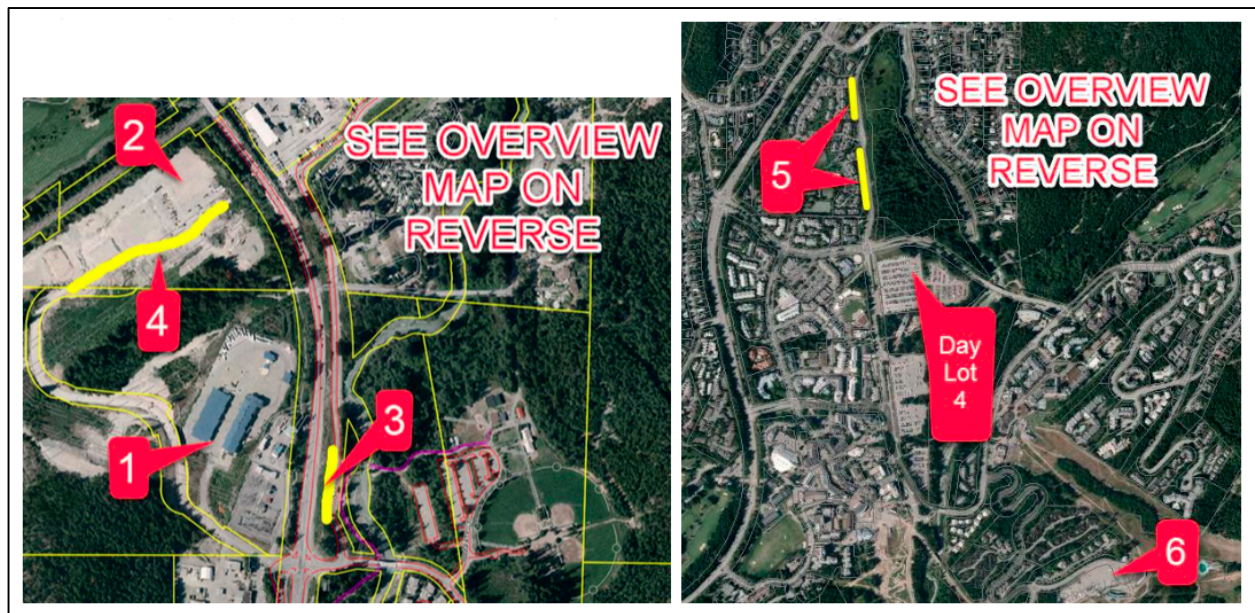
Table 3.2 – Residences of persons using bicycle valet parking, summer 2017

Residence	Total Bicycles	Daily Average	Proportion
Whistler	534	33/day	39%
Pemberton	6	< 1/day	< 1%
Squamish	17	1/day	1%
Metro Vancouver	548	34/day	40%
Other British Columbia	36	2/day	3%
Other Canada	32	2/day	2%
United States	116	7/day	8%
Elsewhere in the world	96	6/day	7%
Totals	1,385	87/day	100%

3.3 Commercial Buses

In previous years, commercial buses parked for free in an area of Lot 4 reserved for buses. This summer, in order to maximize the capacity of the Day Lots for general purpose parking, buses were relocated to six locations nearby, as illustrated in Figure 3.3:

Figure 3.3 – Commercial bus parking locations, summer 2017



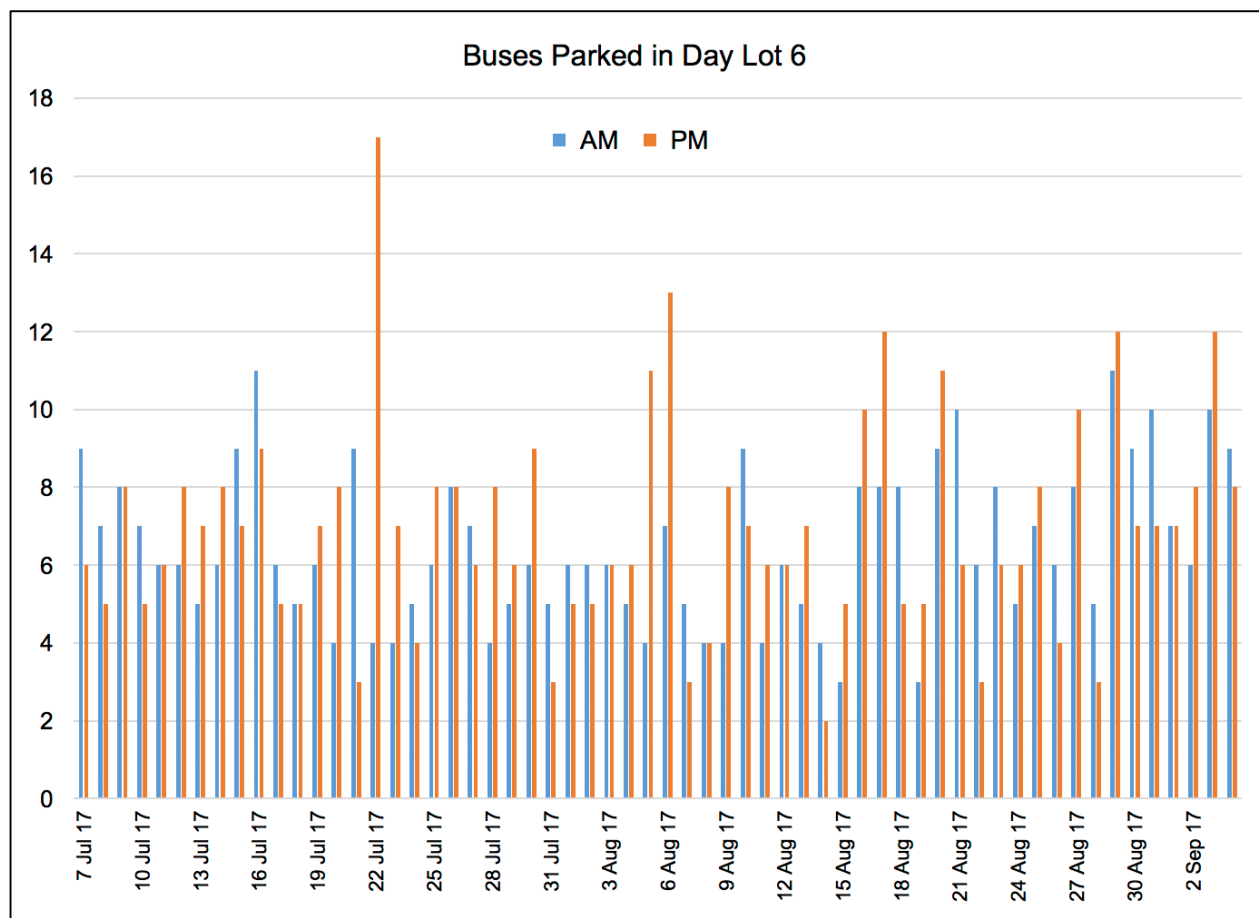
1. The BC Transit yard on Nesters Road. This is a secure facility, for which an annual contract with BC Transit is required, and an associated cost to use the facility.
2. Nesters Crossing. This is a privately owned and managed facility, requiring a fee for parking.
3. Mons Road. Bus parking is permitted on the shoulder on the west side of the road in designated areas only.

4. Nesters Road. Bus parking is permitted on the shoulder on the east side of the road in designated areas only.
5. Blackcomb Way north of Lorimer Road. Bus parking was permitted on the west side of the road during the daytime (initially from 8 am to 8 pm, which was reduced in August to 9 am to 6 pm), and use of this location was discontinued after 1 September.
6. Day Lot 6 at Base 2, where designated stalls for buses were provided.

The most popular locations for commercial bus parking were Blackcomb Way and Day Lot 6 at Base 2 (locations 5 and 6 above). The Blackcomb Way location required significant efforts by RMOW bylaw staff to enforce the daytime only regulation, and generated complaints from adjacent residents, and as a result use of this location was discontinued after 1 September.

Day Lot 6 is part of the Whistler Blackcomb provincial tenure agreements and is fully managed by Vail Resorts, which undertook counts of buses parked in Lot 6. Figure 3.4 illustrates the numbers of buses in Lot 6 over the summer. On average, there were 8 buses in Lot 6 each day, and a maximum of 17 buses.

Figure 3.4 – Commercial bus occupancy in Lot 6, summer 2017



4 Conclusions and Recommendations

The summer 2017 Transportation Action Plan was successful. The results presented in previous sections indicate that parking availability was improved in summer 2017, the free transit service was even more popular than last year, the bicycle valet parking was well-used, and there were fewer local automobile trips on the highway. The summer phase of the Action Plan has demonstrated that the planned changes to transportation services and facilities will help to achieve the Transportation Advisory Group's vision that Whistler's transportation system efficiently and affordably moves people and products to, from and within Whistler, while delivering a high-quality experience and minimizing impacts on natural areas.

Specific conclusions and recommendations regarding parking include:

- **Day Lots:** Availability was 10% or more in Day Lots at all times on the four survey days. This is a significant improvement from summer 2016 when the Day Lots were full on 18 out of 20 Saturdays and Sundays. The target of 10% parking availability was achieved through a combination of introducing pricing in Lots 4 and 5, reconfiguring the parking lots, and other initiatives such as free transit and bicycle valet parking.
- **Municipal lots in the Village:** Although availability improved compared with summer 2016, the target of 15% availability was not achieved much of the time. A major contributing factor was the significant numbers of vehicles parked beyond the time limits, which indicates a need for increased enforcement, as discussed below. Had these overtime parkers been eliminated, the 15% parking availability target likely would have been achieved.
- **Private lots:** Parking was available in all private lots at all times. In particular, the Town Plaza and Brewhouse lots remained largely empty. The municipality could develop arrangements with owners and operators of private parking lots to make better use of these lots for publicly-accessible parking, and for specific user groups such as employees who work in the Village.
- **Creekside:** Although it was free, the Creekside parkade was not well-used. To encourage more people to park at Creekside and make use of the free transit service to the Village, the municipality should consider ways to provide additional information regarding parking at Creekside, including signs on Highway 99 northbound.
- **Parking passes:** Hundreds of parking passes were sold before and during summer 2017, creating an incentive for pass holders to drive and park as much as possible to get their money's worth, and resulting in high occupancies in some of the Day Lots. Rather than selling passes valid for unlimited use during one or two months, the municipality should consider switching to selling passes valid for a specified number of uses (such as 20 times). This would remove the incentive to use the pass as much as possible before it expires, and instead would provide an opportunity for people to consider other modes of travel on a day-to-day basis.
- **Parking enforcement** is an essential aspect of any parking management plan. Without adequate enforcement, the techniques described above would not be effective in shifting parking demand and achieving targets of 10% or 15% availability. The parking duration surveys on Main Street and at the Conference Centre indicate that a significant number of

persons are parking beyond time limits, some repeatedly and for the entire day, which demonstrates that current levels of enforcement are not sufficient. Techniques to improve enforcement include more frequent patrols in high-demand areas at high-demand times (particularly weekends), and technology to track people who move vehicles within a lot or purchase additional parking beyond the time limit, and other repeat offenders.

- **Information:** To make better use of under-utilized facilities and avoid congestion in high-demand areas, the municipality should provide more information about parking, for motorists in the Village looking for parking, and for visitors before they travel to Whistler. Such information includes (but is not limited to) signs directing motorists to parking, printed and electronic maps of parking lots with information about prices and time limits, and expanded search, information and other features in the municipality's smartphone parking app.

Key conclusions and recommendations regarding other elements of the summer 2017 Transportation Action Plan include:

- **Free transit:** The free transit service on weekends and holidays was successful, attracting more riders per hour and per day than in the previous summer. This demonstrates that it is a key component of the Transportation Action Plan, and consequently the free transit service should be continued in summer 2018.
- **Increased transit service:** The success of the free transit service resulted in repeated pass-ups (where a bus is full and "passes up" people waiting at bus stops further along the route), particularly between Whistler Creek and the Village in the late morning. To address this issue and minimize the number of pass-ups, transit service should be increased in summer 2018 on weekdays and weekends on routes operating between Whistler Creek and the Village.
- **Bicycle valet parking:** The bicycle valet parking service was popular and well-used, and should be expanded in summer 2018 to include additional appropriate locations, longer hours and more days of the week, and more special events.
- **Secure bicycle parking:** In addition to the bicycle valet parking service, there is a need for secure bicycle parking that is available to employees and others in the Village on a daily basis, during the daytime and into the evening. The municipality should construct bicycle cages and implement other types of secure facilities, including partnering with the private sector to build or convert automobile parking stalls to secure bike parking for their staff, customers and guests.
- **Coordination:** Free transit service and secure bicycle parking are attractive travel options for residents, employees and visitors, reducing the demand for parking and traffic on the highway. It is important, therefore, that the free transit service and secure bicycle parking be available at all times when pay parking is in effect in Day Lots 4 and 5 during the summer. If the municipality extends the dates for pay parking to address peak demands in June and September, the dates for free transit service and bicycle valet parking should also be extended.
- **Commercial buses:** The municipality should continue to work to find a long-term solution for commercial bus parking, in conjunction with operations at the renovated Gateway Loop bus facility. The solution should include overnight parking for commercial buses as well as short-term day parking and staging options, and could include different parking facilities in summer and winter.