



CITY OF KIRKLAND
Department of Public Works
123 Fifth Avenue, Kirkland, WA 98033 425.587.3800
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager
From: David Godfrey, P.E., Transportation Engineering Manager
Kathy Brown, Public Works Director
Date: December 11, 2014
Subject: DOWNTOWN PARKING STUDY

RECOMMENDATION:

It is recommended that City Council reviews and provides direction on the options developed in a draft downtown parking study. Also, it is recommended that Council provides direction on the public process for the study. A more complete set of questions that Council may wish to consider is presented at the end of this memo.

BACKGROUND DISCUSSION:

Introduction

The City of Kirkland has retained Rick Williams Consulting to develop a parking study that provides options for improving parking in downtown Kirkland. As other studies have determined, the Consultant found that parking in downtown Kirkland is almost 100% full during much of the day, particularly during the summer months.

The goal of the study is to develop options that make parking more available in downtown Kirkland. This goal can be accomplished through a combination of the following:

- **Increasing supply.** Example strategies include: building new parking lots; partnering with developers to build public parking; or providing more parking on-street.
- **Improving operations.** Examples of operational improvements include: creating a "brand" for easy recognition; improving wayfinding; expanding pay parking; upgrading the Library Garage; and implementing downloadable applications for paying by phone.

A draft of the Study, titled *City of Kirkland, WA Assessment of Downtown Parking Supply/Capacity, Technology and Solutions Draft Final Report*, hereafter referenced as the Draft Study, is included as Attachment 1. The Study has been intentionally left incomplete in order to solicit Council and public comments and suggestions prior to finalizing the document.

Options

A number of options have been developed and are shown in Tables 1 and 2 below and are on Page 4 and 5 of the draft report (Attachment 1). The options are listed in no particular order within their type and timing. Some options have two parts, A and B, referring to their timing, (with B coming after A). As described above, each option is characterized as "supply" or "operations." Further, options are identified for implementation in the near term or longer term. In order to help clarify the options, Table 3 shows them sorted by both type and timing so that options in the same time frame but of different types can be seen in one table.

Table 1. Summary of Supply options by time of implementation

Time	Option	Purpose	Relation to other Options	Cost ¹
Near term	1(A). Surface Lot South of City Hall. Finalize planning, costing and decision to implement new surface lot south of City Hall	Provide New parking supply. Also provides options for valet programs	May have to combine with paid employee parking elsewhere to generate demand.	Low
	2. (A) Add time limited parking on Lake Ave W Up to 45 stalls. Current permit zone becomes time limited stalls except by permit	Increase supply by allowing use of existing underutilized stalls. Targeted at providing customer parking	Increases supply for shorter term parking	Low
	2 (B) Lake Ave W Builds on option A, sell monthly leases on stalls that are not utilized in option A.	Increase supply for longer term parking.	Number of stalls is based on performance of option A	Low
	3. Add parking on the south side of Waverly way. Up to 25 stalls.	Increase supply for longer term parking.	May have to combine with paid employee (long term) parking elsewhere to generate demand.	Low
Longer term	1(B). New surface lot south of City Hall. Construction of 144 – 166 stall surface parking facility for public parking.	Increase supply for employees and possible valet use.	May require pay parking in other areas to create demand.	High (\$2 million)
	4. Investigate/implement agreements for shared use with existing or new private parking areas. Could be time-of-day specific.	Increase parking supply.	Requires substantial funding	High

¹For planning purposes, initial capital costs are estimated at **low**, (\$50,000 or less) **medium** (\$50,000 to \$500,000) or **high** (more than \$500,000).

Table 2: Summary of Operations options by time of implementation

Time	Option	Purpose	Relation to other Options	Cost ²
Near term	5 (A). Consider Expanding Pay parking to more hours and more locations. These could include on-street, off-street, employee parking, etc.	Understand how pay parking could result in better control of demand. Simplify rules, increase opportunities for customer parking.	Coordinate with supply options to increase the time when parking is utilized at 85% or less.	Low
	6. Marketing & Communications. Create on-going program of marketing and communicating parking system benefits to users requires budget. Includes creating a brand, logo, and wayfinding with static signing.	Better utilize existing capacity by more clearly conveying parking locations and improving the perception of parking system.	Ties to all other options.	Medium
	7. Improve operations at the Library Garage Open permit only stalls to all users after 5:00. Enhance cleanliness, security and improve attractiveness of facilities.	Supports increased use of existing supply. Make	Supports marketing of parking brand.	Medium
	8. Install in-lane counters at all lots	Provide data to facilitate decision making and provide platform for dynamic signage.	Needed for dynamic signing. Supports existing supply and marketing of existing brand. Data allows better decisions on other options.	Medium
Longer term	5 (B). Pricing Implementation of pricing in option 5 (A).	Influence use of supply through pricing	Coordinate with supply based options.	Medium
	6 (B). Wayfinding: Real time dynamic signage to communicate both stall availability and location. Includes possible installation of on-street sensors.	Better manage existing supply by improving data available to customers	Requires counters and integration with marketing and communications. Off-street first on-street later.	High ³
	9. Apps that provides information to users on parking supply; directs users to available parking. Could also include pay-by-phone opportunities.	Better manage existing supply by improving data available to customers	Requires data, therefore would be off-street first, on-street later. Linked to Phase 1 strategies and increase in parking supply. On-street would require relatively expensive sensors.	Medium

² For planning purposes, initial capital costs are estimated at low, (\$50,000 or less) medium (\$50,000 to \$500,000) or high (more than \$500,000)

³ A set of dynamic wayfinding signs (at off street lots and with signs at entry points to downtown) attached to loop detectors would be on the order of \$250,000 to \$300,000.

Table 3 Options sorted by Type and Timing

		Option Timing	
		Near term	Longer term
Option type	Supply	1. (A). Plan and design Surface Lot South of City Hall. 2. (B) Add permit parking on Lake Ave W 3. Add parking on the south side of Waverly way. Up to 25 stalls.	1 (B). New surface lot south of City Hall. Construction 4. Investigate/implement agreements for shared use with existing or new private parking areas.
	Operation	5 (A). Consider Expanding Pay parking to more hours and more locations. 6. Marketing & Communications. Includes creating branding, logo, and "identity" and wayfinding with static signing.	5 (B). Pricing Implementation of pricing in option 5 (A). 6 (B). Wayfinding: Real time dynamic signage to communicate both stall availability and location. Includes installation of on-street sensors. 9. Apps that provides information to users on parking supply; directs users to available parking.

The options are described in detail on pages 8-10 (Supply) and 11-17 (Operations) of the final report.

Public process

Who are the stakeholders?

Traditional stakeholders for downtown parking have included the following groups:

- Those who operate businesses or offices downtown
- Property owners
- Downtown residents
- Neighbors from areas surrounding downtown.

Council may wish to refine this list given the set of issues that are presently being considered.

Comments that have been received

The parking study has been structured so that public comment comes after the City Council has had a chance to respond to the options proposed by the consultant. A number of individuals have been patiently waiting for the study to be released and an opportunity for formal comment. They have offered thoughts on downtown parking in the meantime. Some of these thoughts are presented in Attachment 2.

Options for next steps in public process:

In order to have an effective public process, both the decisions to be made and the decision makers must be identified. Once this is done, the role of stakeholders can be determined.

At this point the main decisions that need to be made are as follows:

- Are there other options that should be added for consideration?
- What should be the timing for implementing options?

Public Works staff will develop and implement a plan for stakeholder engagement once preliminary feedback is received from the City Council on the draft plan. Staff is seeking feedback from Council members on recommended stakeholders to be included in our public outreach process.

Additional Considerations

1. In addition to the technical evaluation of the consultant contained in the Draft Study, there are some policy issues the City should consider:
 - **Development Impacts:**
 - **Park and Main:** Eighty-eight stalls (operated with no time limits at \$1/hour between 9:00 AM and 9:00 PM) are currently provided at the Park and Main lot through an agreement between the City of Kirkland and the property owner. The owner has recently begun the process of selling the property with the intent of redevelopment. In the short term, this will create a reduction in supply but in the longer term it offers an opportunity to partner with the developer to replace the public parking that will be lost.
 - **Parkplace:** Parking impacts and opportunities for additional parking and/or public private partnerships could be created by the planned redevelopment of Parkplace. City staff will pay special attention to these opportunities and impacts as development plans move forward.
 - **Enforcement:** There are two enforcement issues that may be, in coordination with other options useful tools in meeting the City's parking goals. The first is fuller enforcement of the Park Smart program that limits the areas of downtown where downtown employees may park. The other is a "move to evade" ordinance that could be used to discourage long term parkers from serially moving from one time limited stall to another.
2. Several improvements to the Library Garage are already planned for 2015. These improvements fit within option 7 in the Table 2 above and include:
 - Lighting: changing from high pressure sodium to LED lighting
 - Cleaning: more frequent sweeping and pressure washing
 - Painting: stall markings and selected wall areas
 - Elevator: upgrades to the elevator cab
3. To give some perspective to the effectiveness of the proposed options, it is helpful to consider the "85% rule" which is commonly used in the parking industry. It says that ideally, 85% of parking stalls are occupied at any given time. This level of occupancy indicates that stalls are available without extensive searching, yet supply is not overbuilt.

The Consultant surveyed about 1000 stalls (Table 3, page 6, Attachment 1) in the study. Assuming that occupancy reached 100% in these stalls, and that demand remained constant, an extra 150 spaces would have to be supplied in order to satisfy the 85% rule. This could be done, for example, by constructing the surface parking lot at the City Hall site.

Note that not all the stalls were surveyed by the Consultant and so the total need is likely greater than 150 stalls; this example is intended to frame the extent of the problem and its potential solutions. Having a specific capacity target helps the Council and the public identify progress towards the goal. If the Council supports setting a specific target, staff would include developing this target in the public outreach plan and bring back a recommendation for a specific target to the next Council presentation on this topic.

Questions

It would be helpful if Councilmembers could offer their thoughts on the following questions:

- Are the right issues being examined; are the goals of the study right?
- Have the options from the study been clearly described?
- Does the Council concur with setting a specific capacity target such as 150 new spaces?
- Are there other options that should be added for consideration?
- What should be the timing for implementing options?
- Do we have the right stakeholders?
- Any other issues the Council may wish to raise?

2014

City of Kirkland, WA
Assessment of Downtown Parking
Supply/Capacity, Technology and Solutions

DRAFT FINAL REPORT [v.5]



Prepared for:

City of Kirkland
Public Works Department

Submitted by:



RICK WILLIAMS CONSULTING
Parking & Transportation

Table of Contents

1. Introduction and Summary of Options	1
2. Existing Conditions.....	6
3. Supply Options.....	8
4. Operations	11
5. Summary.....	18

DRAFT

I. Introduction and Summary of Options

The issue of parking and its availability is a long standing issue in Downtown Kirkland. Anecdotal and statistical information has been gathered over the years that support the perception that (a) parking supply in Kirkland is full for sustained periods of time throughout the week and (b) parking management could be improved to help meet the growing demand for parking in the downtown. Adding supply and improving management in order to increase parking availability are the main two goals of the options proposed in this study. Increases in supply and changes to management could also improve the ease of parking downtown. This report offers options for such changes within the areas highlighted in **Figure A**.

Figure A
Project Study Area



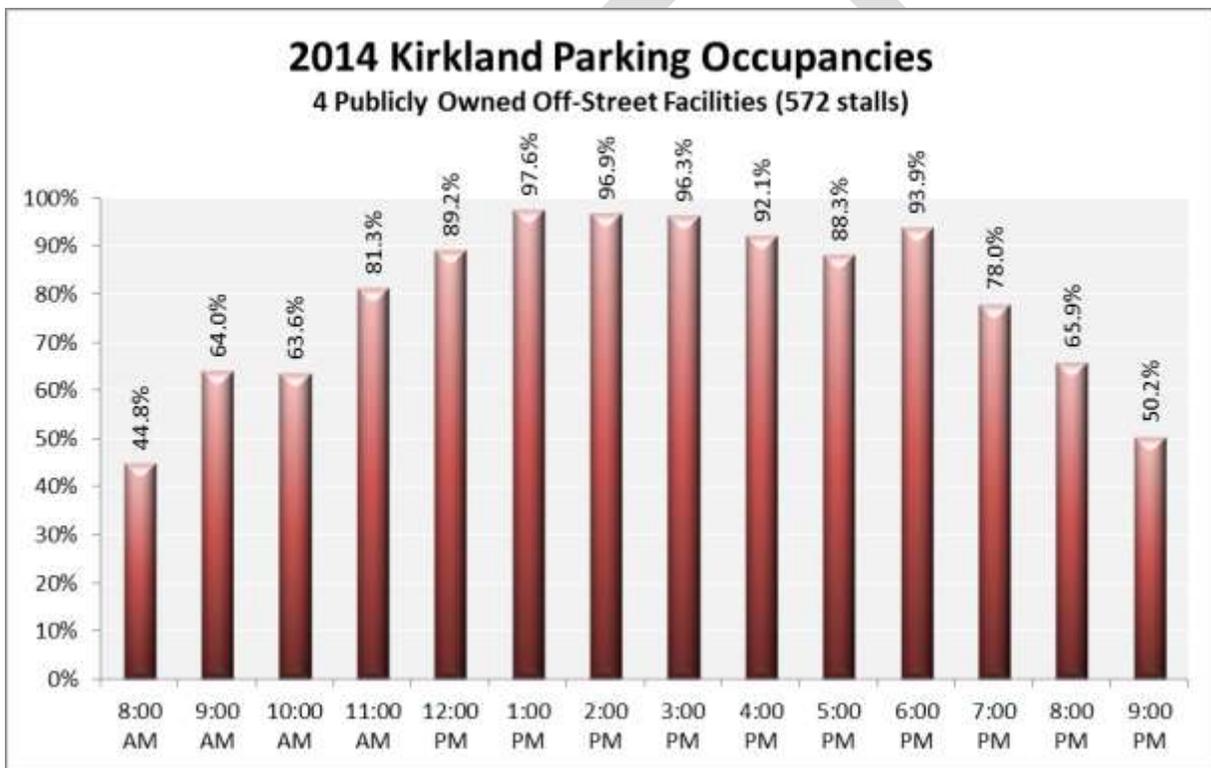
The City of Kirkland retained Rick Williams Consulting (RWC) to assess existing parking conditions and examine potential measures and strategies that could be implemented to improve access to parking, on-street and off-street. RWC interviewed staff to understand and assess parking services currently delivered by the City of Kirkland as perceived and recommended by City staff. Public comment/involvement must be considered before any options are implemented and is to be conducted by the City after this technical work is completed.

Based on these interviews, RWC completed separate assessments that were incorporated into detailed technical memoranda.¹ These assessments included evaluations of:

- Occupancy and utilization in sampled sites
- Options to maximize opportunity in existing supplies of parking
- Technology and wayfinding

Overall, these assessments found that the existing supply is routinely near capacity (see **Figure B**) and opportunities to further maximize existing supplies of parking are limited. New supply is an option that could be pursued as well, with a new surface parking site south of City Hall a possibility.

Figure B
2014 Sampled Parking Occupancies – City Facilities



A number of options are identified within this report in the areas of both supply and operations. They are categorized as either near or longer term solutions, with the near term solutions being less costly at the outset and “doable” within the context of City capacity.

We believe implementation of these options would result in more effective management of parking capacity. It would also result in improvements to the occupancy and user convenience problems that have been associated with downtown Kirkland parking for many years.

¹ See appendices.

Use of new technologies can bring efficiencies to the system, but should be combined with or preceded by a commitment to branding, marketing and communications that exceed current levels of staff time, management and budget that are devoted to parking.

Pricing parking can help realize more efficient use of new and existing supply. Though often difficult, discussion of paid parking and expanding its application in Kirkland should take place within the context of desired outcomes.

All the options come with cost and require a focused commitment to parking management that extends beyond current levels of effort. Tables 1 and 2 below list the options sorted by possible general implementation timeframes and by the categories of supply and operations; more detailed discussion of each phase and strategy is presented in Sections III and IV.

For planning purposes, initial capital costs are estimated levels of low, medium or high. Examples of Low cost items (\$50,000 or less) include a moderate amount of striping or signing, medium cost items (\$50,000 to \$500,000) require substantial signing or other capital, and high cost items (more than \$500,000) usually involve complicated infrastructure.

These proposed options should be viewed as a menu, not a final recommendation. It is expected that strategies and costs would likely be refined, modified, and prioritized through the City's internal plan review and approval processes, and possibly further adapted as implementation unfolds. In some cases, implementation would be complex, requiring an ongoing level of commitment, coordination, and resources that goes beyond what is currently in place. Public comment and involvement will also be necessary before choosing a final course.

Table 1. Summary of Supply options by time of implementation

Time	Option	Purpose	Relation to other Options	Cost
Near term	1(A). Surface Lot South of City Hall. Finalize planning, costing and decision to implement new surface lot south of City Hall	Provide New parking supply. Also provides options for valet programs	May have to combine with paid employee parking elsewhere to generate demand.	Low
	2. (A) Add time limited parking on Lake Ave W Up to 45 stalls. Current permit zone becomes time limited stalls except by permit	Increase supply by allowing use of existing underutilized stalls. Targeted at providing customer parking	Increases supply for shorter term parking	Low
	2 (B) Lake Ave W Builds on option A, sell monthly leases on stalls that are not utilized in option A.	Increase supply for longer term parking.	Number of stalls is based on performance of option A	Low
	3. Add parking on the south side of Waverly way. Up to 25 stalls.	Increase supply for longer term parking.	May have to combine with paid employee (long term) parking elsewhere to generate demand.	Low
Longer term	1(B). New surface lot south of City Hall. Construction of 144 – 166 stall surface parking facility for public parking.	Increase supply for employees and possible valet use.	May require pay parking in other areas to create demand.	High \$2 million
	4. Investigate/implement agreements for shared use with existing or new private parking areas. Could be time-of-day specific.	Increase parking supply.	Requires substantial funding	High

Table 2: Summary of Operations options by time of implementation

Time	Option	Purpose	Relation to other Options	Cost
Near term	5 (A). Consider Expanding Pay parking to more hours and more locations. These could include on-street, off-street, employee parking, etc.	Understand how pay parking could result in better control of demand. Simplify rules, increase opportunities for customer parking.	Coordinate with supply options to increase the time when parking is utilized at 85% or less.	Low
	6. Marketing & Communications. Create on-going program of marketing and communicating parking system benefits to users requires budget. Includes creating branding, logo, and “identity” and wayfinding with static signing.	Better utilize existing capacity by more clearly conveying parking locations and improving the perception of parking system.	Ties to all other options.	Medium
	7. Improve operations at the Library Garage Open permit only stalls to all users after 5:00. Enhance cleanliness, security and improve attractiveness of facilities.	Supports increased use of existing supply. Make	Supports marketing of parking brand.	Medium
	8. Install in-lane counters at all lots	Provide data to facilitate decision making and provide platform for dynamic signage.	Needed for dynamic signing. Supports existing supply and marketing of existing brand. Data allows better decisions on other options..	Medium
Longer term	5 (B). Pricing Implementation of pricing in option 5 (B).	Influence use of supply through pricing	Coordinate with supply based options.	Medium
	6 (B). Wayfinding: Real time dynamic signage to communicate both stall availability and location. Includes installation of on-street sensors.	Better manage existing supply by improving data available to customers	Requires counters and integration with marketing and communications. Off-street first on-street later.	High
	9. Apps that provides information to users on parking supply; directs users to available parking. Could also include pay-by-phone opportunities.	Better manage existing supply by improving data available to customers	Requires data, therefore would be off-street first, on-street later. Linked to Phase 1 strategies and increase in parking supply. On-street would require relatively expensive sensors.	Medium

II. Existing conditions

In July 2014, RWC sampled parking occupancies in various locations within the downtown. The sample was comprised of 1,126 stalls. **Table 3** provides a breakout of the sample sites and **Figure A** (page 1) maps their location.

Table 3
Parking Facilities Surveyed

On-Street Facilities	Number of Stalls
Market Street – East side (between Central & 4 th Ave)	14
Market Street – West side (between Central & 4 th Ave)	15
Waverly – North side (between Market & 2 nd St W)	25
Lake Avenue W – North side (from Market to 145' west of Market along Lake Ave W)	7
<i>On-Street Subtotal</i>	61
Off-Street Facilities	Number of Stalls
Market/Lakeshore	17
Lakefront	99
Lake/Central	54
Library Garage	
• Library use only	62
• 4-Hour visitors	163
• Permit Parking	176
Park and Main (Antique Mall)	88
Church Lot	71
Merrill Gardens	33
Accessory	35
Pay to Park	18
MG service/employee vehicles	33
2-Hour public parking	15
The 101	
Bank of America	41
Pay to Park	14
Permit Parking	13
1 st Avenue S surface lot	97
<i>Off-Street Subtotal</i>	1,029
Total On & Off-Street Stalls Surveyed	1,090

Based on the sampling of parking supply occupancy conducted by RWC in July 2014, it is apparent that parking utilization in the downtown is at a very high level. This is reflected in numerous locations/areas where occupancies routinely exceed the industry threshold of 85%; in many cases reaching 100%. This

finding is consistent with previous parking studies. Both the on and off-street supplies of parking are highly occupied for significant periods of the operating day. Employees often times use stalls that would be better used by customers, increasing occupancy and monopolizing prime parking for retail businesses. Opportunities to create significant new options within existing supplies will be small scale and must be strategically linked to other options and potentially increased emphasis on non-auto modes. However, the data does allow for better coordination of areas where parking “surpluses” exist.

DRAFT

III. Supply options

Options summarized below would increase the net supply of parking available in the downtown. Options range from a new surface lot to adjustments in on-street supply to potential arrangements/partnerships with the private sector.

As measures are implemented to better manage and leverage capacity within the existing supply of parking, new parking supply could be added through the construction of new surface lot(s) or parking garage(s). The cost of structured parking can range from \$35,000 - \$50,000 or more per stall, depending on factors like location, above/below grade, cost of land, soil condition and design features.² Given that parking is currently provided free of charge, it is not likely that structured parking would be financially feasible in the foreseeable future without significant public discussion of multiple funding sources and/or marked changes in how parking is provided.

However, the pursuit of additional parking on a surface facility could come at a lower cost and, therefore, could be a cost effective strategy to pursue in the near term as (a) an interim approach to mitigate current constraints/deficits until a future structure can be built, and (b) leverage other options outlined in this report.

Option 1 Surface Lot South of City Hall

The City owns a property adjacent to the existing City Hall site at 123 Fifth Avenue. This property could be developed into a surface parking facility that could provide between 146 and 166 parking stalls. **Figure C** provides an aerial illustration of the site.

The engineering firm W.H. Pacific was retained to develop a cost analysis related to construction of a surface parking facility at this site. Based on a number of factors related to lot coverage, storm drainage, filtration and detention and contingency costs, W.H. Pacific estimates the cost to construct a lot at the City Hall site to be in the range of \$1.4 million to \$2.3 million.

If a surface parking facility were developed on the City Hall property, its location on a hill above downtown would not likely be attractive to customer/visitors. However, it could be effectively managed as (a) a downtown employee facility provided at a lower rate than employee parking in the library garage and/or (b) a restaurant valet facility; which could be particularly attractive for uses on evenings and weekends. It should not be used by employees working at City Hall.

² Surface lot parking is estimated at \$13,000 per stall. Garage parking is estimated at \$40,000 per stall (above grade).

Timing

(A) Near term: Refine cost estimates related to creation of a surface parking facility at the City Hall site and determine whether or not to proceed with development of this property as surface parking.

Cost: Medium

(B) Longer term: Design and construct surface parking lot (144 – 166 stalls) and coordinate operation/management of facility to provide employee and/or valet parking opportunities.

Cost: High (\$1.4 to \$2.3 million)

Figure C
City Hall Parking Area – Potential Parking Site



Option 2 Lake Avenue West

This area is currently “permit only” for residential users. These 45 stalls are largely unused during normal hours of enforcement (9:00 AM – 7:00 PM). Additional supply could be made available if these stall were time limited (e.g., 2 hours) “except by permit.” This would allow customers of downtown to use Lake Avenue West. Note that time limits could also be implemented at the eastern end of Lake Avenue W,

which is not currently Permit Only. Public comment and involvement will be necessary before making final decisions.

Depending on how customers use this space, some of it could be leased to employees. For instance, if after implementing time limits it turned out that stalls were still regularly unoccupied, a appropriate number of permits for these stalls could be made available for employees. The number of permits offered would depend on the number of stalls available.

Timing Near term:

(A) Time limit “except by permit” up to 45 existing stalls. Keep permit system for residential users making them exempt from time limits.

Cost: Low

(B) If capacity remains after (A), evaluate selling a limited number of employee permits on Lake Avenue West to increase supply for downtown employees. This would exempt authorized employee permits from the time limits during hours of enforcement.

Cost: Low

Option 3 Waverly Way

Add parking on the south side of Waverly Way (along Heritage Park). The potential impacts to bicycle traffic should be evaluated and considered prior to a final decision on this option. There is potential here for 25 new stalls that could be managed similarly to the Option 2 strategy for Lake Avenue West. Note that Waverly Way is not currently designated as Permit Only. As with Lake Avenue West, public comment and involvement will also be necessary before choosing a final course.

Timing: This option could be completed in the near term.

Cost: Low

To encourage use of underutilized parking on Lake Avenue W and Waverly Way, Options 2 and 3 may need to be considered in the context of potential pricing scenarios for the downtown, which would create a cost incentive for use of these stalls/permits as opposed to higher pricing in more “premium” stalls/permits downtown.

Option 4 Shared use with private parking

This option consists of investigating and implementing agreement for the use of existing or new parking with privately owned stalls. Data collected in the sampling exercise suggests there are some opportunities to better utilize parking supplies at Merrill Gardens and The 101. This would, of course, require input and agreement from private owners. Engaging in conversations to consider more comprehensive shared use strategies/agreements to move downtown employees into available private parking supplies will need to

be pursued. In the 2005-2006 timeframe the City leased additional supply from the lot in the northwest corner of Central Way and Third Street. This supply was not well used.

Partnering with developers to obtain new public supply built as part of redevelopment is an idea that has been considered for some time. The Park and Main site (AKA former Antique Mall) may be a candidate site for such partnership since it is currently for sale.

Timing: This option is recommended for the longer term but will depend on timing of opportunities.

Cost: High

DRAFT

IV. OPERATIONS

A more strategic approach to off-street parking management can lead to better efficiencies with existing supply. However, investments in new parking technologies and programs can be costly. Therefore it is important for Kirkland to consider strategies that are most appropriate to its current level of services and resources. It is also important to recognize that, downtown Kirkland has significant parking problems that limit access to parking and affect both near-term and future vitality. Addressing these issues will require changes and/or investments that exceed status quo approaches and resources.

Option 5 Pay Parking

Given Kirkland's very high parking demand, moving to a more comprehensive system of paid parking on- and off-street would maximize the availability of parking stalls for users of the downtown and could be a tool to influence demand. For example, paid on-street parking would be effective in moving employees - who may be parking on-street in customer areas – into other areas where capacity can be enhanced or added; or into alternative modes.

Although not necessarily a reason for implementing pay parking, pricing would provide revenues that could be used to re-invest in improving downtown parking (e.g., new parking, infrastructure, communications systems and/or encourage alternative modes as a way to mitigate current parking constraints and deficits). With any pay parking implementation, it is critical that the uses of revenue are clearly defined and agreed to by a wide range of stakeholders.

The City could explore opportunities to (a) strategically expand hours during which parking is pay-to-park at existing metered stalls, (b) expand the total number of paid parking stalls in areas of high occupancy and/or (c) initiate a pilot program of on-street pay stations to test their effectiveness in influencing demand and minimizing constraints.

Exploring expanded hours for pricing in City lots makes sense because there is little difference in occupancies when parking is free (before 5:00 PM) or when pay-to-park is in effect (generally after 5:00 PM). Implementing pricing would aid in freeing up spaces and moving users to less used spaces; particularly when integrated with Phase 1 strategies.

Consideration of charging for permits in the Library Garage is another pay parking strategy. Occupancies in permit stalls in the Library Garage generally exceed 90% and with the current economic up-turn these number are increasing. This suggests that there is a rate of demand that warrants a parking charge. Implementing rates at this facility would be coordinated with options that add new capacity and would complement varied rate/pricing to encourage employees into available (and possibly more remote) supply.

Timing: Opportunities for expanding pay parking should be studied in the near term. In the longer term, it should be implemented in coordination with complementary options.

Cost: Low for expanding hours at existing pay facilities, medium to high for purchasing pay stations and expanding pay parking to other locations.

Option 6 Branding and Marketing/Communications

Most of the strategies and technologies recommended in this report require a sustained level of support to communicate them to the public and ensure their success. Investments in branding, facility identification and presentation and signage are intended to increase awareness of a parking system by customers/visitors within an integrated parking inventory. To this end, any “new technologies” implemented in Kirkland need to be integrated into a sustained marketing and communications effort for the parking system.

A successful program for marketing and communicating parking to the public maximizes the supply of parking built and establishes a resource that benefits area businesses (particularly those that have meaningful customer bases). Through marketing and communications, customers identify with a *product*, learn how to use it and what to expect. This reduces confusion and frustration and increases customer satisfaction.

Developing a parking system “Brand” is a trademark of “Best in Class” parking programs. The brand should quickly and uniquely capture a customer’s attention and communicate a positive image that distinguishes the parking product from the rest of the market. The brand is more than just a logo - a community will know it has the right brand when the brand promotes the image the community wants people to have of the parking system (e.g., for customers, clean/safe, best in market, etc.).

The 2002 *Downtown Kirkland Parking Study and Plan* specifically called for the creation of “a uniform signage package that incorporates a unique logo and color scheme for public parking facilities to establish a sense of recognition, identity and customer orientation for users of the downtown parking system.”³ A simple system was developed in 2004 but the “brand” is not distinct (see photo to the right) and marketing and communications of the brand and parking system was not pursued.



Kirkland: Existing Parking “Brand”

Brand development can range in cost from \$10,000 - \$20,000, which would be the cost for designing a logo. Additional costs would be incurred as the brand is integrated into signage, collateral materials, web-sites and other communications.

Marketing and communications budgets vary by city and by size and complexity of the affected parking systems. Nonetheless, a commitment to a stable budget of funding for communicating the system will be required. Establish a marketing/communications budget and invest in on-going marketing and

³ City of Kirkland, *Downtown Parking Study and Plan* (October 2002), page 63.

communications efforts to support the Kirkland parking brand and raise awareness and use of parking assets.

- (A) Pursue a coordinated branding strategy for incorporation into a larger marketing and communications package for customer/visitor parking downtown. At present there is no unifying relationship between City owned/controlled parking assets. Branding will serve as the foundation piece for establishing a true parking system. Branding also provides a basis for launching supporting programs related to signage, wayfinding and coordinated marketing and communications with customers/users. Branding and marketing will get “the right car in the right place.”

Timing: Near term

Cost: Low to medium to create a brand and initial market/communications plan with an associated annual budget to sustain it.

- (B) Create a consistent visual standard “package” for facility entry areas that represents the Kirkland parking brand (exterior signage, coordinated message boards, etc.). This standard should then be applied to each City owned or controlled parking facility coupled with a format that labels the parking facilities by address.

Timing: Near term and subsequent to (A) above.

Cost: Medium

Option 7 Wayfinding/Dynamic Signage and Sensors

Parking guidance systems help drivers find their parking destinations more efficiently through the use of dynamic messaging street signs. Many cities now use dynamic signage within the public rights-of-way and on-site as a means to inform and direct customers to available parking. Showing drivers the right way to turn to find parking more quickly helps all drivers on the road find their way faster. That means reduced congestion, frustration, carbon emissions, and drive times. It also means happier drivers, and a greener city. It is also important that dynamic wayfinding be used where there is a reasonable assurance of available supply. As such, this is recommended as a longer term strategy, linked to efforts to increase capacity.

Dynamic signage is linked to occupancy information at individual or multiple parking sites (usually collected through loop detector/parking counter systems (see discussion of sensors below). Information is displayed on-site through reader boards/blade signs at the building entry plazas and/or at remote locations to downtown, usually major roadway entry portals. When parking stall availability changes, so do the signs. The signs provide guidance information (an address or facility name) and information on real time stall availability.



In-road Wayfinding: Portland, OR & San Jose CA

Programs that are the most successful tie into a parking “brand” (see Option 6 above). The brand is incorporated into both the on-site signage and the rights-of-way signage. This provides customers a visual cue that translates from their first encounter in the roadway to being able to conveniently identify a parking location. Such systems have been extremely effective both from a traffic/congestion point of view and in terms of stall management. Customers find the systems to be highly useful and “customer friendly.”

The City currently lacks the ability to track use of its off-street facilities so it is difficult to evaluate management strategies. Also, lack of usage data makes it difficult to communicate information to users in a manner that facilitates their decision-making and/or gives guidance on how to use City parking assets. Wireless counter systems (on and off- street) can generate a wealth of data, which can facilitate decision-making related to rates/demand and communicate beneficial information to users. The traditional off-street entry/exit lane counters are cost effective and have a track record of reliability and success. In-stall sensors (see recommendation 10 below) are still new to the market and relatively costly.

Install in-lane lot counter systems where feasible at City owned or controlled lots as a reasonable and cost effective strategy for (a) collecting real time data at City off-street lots and (b) creating a foundation for linking occupancy information to exterior signage or in road guidance systems.

Vendors now offer sensors integrated into smart -credit card-capable meters; but most current applications use stand-alone sensors embedded in the street (or less frequently, curbside) and linked to either multi-space pay-by-space meters, single-space credit card-capable meters and/or on-site and in-roadway informational and guidance signage. The leading firms provide robust back-end software that can take information from pay-by-space meters (and also pay-by-phone applications) to provide “real time” parking metrics data and analysis. These systems also have significant “directed enforcement” applications for on-street parking with interfaces to most major handheld vendors using open systems. This feature can improve the effectiveness of parking enforcement, reducing overall enforcement costs and/or increasing citation efficiency.

It should be recognized that much of the new sensor technology is still evolving and has not been fully proven in large-scale environments; for reliability and return on investment. Issues that are still being addressed include sensor accuracy, detection and delays in transmission of data, interference from other electrical sources, and the ability to handle all types of spaces (parallel, diagonal, and perpendicular) and all types of vehicles (motorcycles, oversized trucks, etc.). At present, the greatest obstacle to wide adoption of sensors is cost. Sensors have both substantial upfront and ongoing per-space costs.

Figure D illustrates where on-site and in-roadway signage could be placed in the downtown to coordinate and consistently communicate parking opportunities to users. The layout envisions three (3) in roadway signs and four (4) on site signs.

Figure D
Potential Lay Out of Coordinated Downtown Parking Signage Package



Timing:

Near Term: Loop detectors for data gathering

Longer term: Dynamic wayfinding signs linked to loops or possibly to other counter systems.

Cost: Medium to high

Option 8 Improve operations at the library

The implementation of a comprehensive maintenance program is critical to the on-going integrity of a facility and as a means to optimize the return on investment made by the City. Anticipating and providing for necessary maintenance and repair for any facility is an essential step (and best practice) in realizing a desired service life and maximizing the attractiveness of the site as a place to park.

Whether maintenance is provided by the City or through third party contracts, there are industry best practice standards that should be met. Many of these standards (cleanliness, lighting, safety/security and operating integrity) are no different for a parking garage than they would be the overall physical quality of any other public space.⁴

Currently, employee stalls are specifically designated for employee use at the Library Garage. After 5:00 PM these stalls are underutilized and visitors avoid them (constraining visitor stalls) because of the signage. If signage “blended” stall designations in the evenings (after 5:00 PM) for visitor use at the Library Garage; this would allow the stall to operate as a fully general use garage at night, when permit use drops and visitor demand increases. This could be accomplished through better signage and guidance systems within the garage.

Ensuring that facility conditions at public parking facilities are of the highest quality is a high priority. Ownership of public parking facilities is based upon a premise that these assets should be maintained in a manner that distinguishes them as premier locations for users (visitors, residents and employees) to park when using the downtown. Public parking facilities should be managed to the highest standard of quality, both as a reflection of the City of Kirkland and as an example of industry best practices. To this end, public lots and garages should have janitorial and maintenance guidelines that are clear, measurable and results oriented.

Timing: Near term, depending on funding

Cost: Signing changes are low cost, on-going high quality maintenance is medium cost and requires annual funding.

Option 9 Parking Applications apps including pay by phone

Another major “smart parking” innovation is the increase in public and private sector applications intended to make more parking data available to the parking public and offer new services to parkers.

⁴ See for instance the Building Owners and Managers Association (BOMA) Standards (<http://www.boma.org/standards/Pages/default.aspx>)

Made possible by the tremendous increase in smartphone usage and more recently the iPad and similar devices, all of which incorporate GPS capability, these applications can gather information about a parker's whereabouts while also offering differing levels of information about the environment in which the vehicle is located or to which it is heading.

Pay-by-phone as a parking payment option is just as it sounds – once motorists park their vehicles, they call a phone number usually located on a sign or the parking meter, enter their space or license plate number, and then hang up. Smartphones can link to an app that doesn't require a phone call. An initial, one-time setup to link a credit card number with a phone number is required. This technology has great potential for making parking easier and providing a significant number of customer benefits in both on- and off-street parking formats. Market data shows an increasing interest in the availability of this type of technology by the growing base of younger and more "tech savvy" visitor/shopper.



Signage and communications systems would need to be implemented or augmented to ensure that customers are aware that the pay-by-phone is an option, as well as to establish start-up accounts. Additional equipment for enforcement personnel would also need to be evaluated.

Recent research conducted by CDM Smith Consultants in San Francisco indicates that pay-by-phone programs cost of \$25 - \$50 per associated stall to set up. Additional annual support costs of \$50 - \$75 per stall would accrue to the City.⁵ The number of areas where pay to park is currently in represents a small percentage of the total parking supply. If there were more pay stalls the benefit of this amenity would increase.

A parking app is best linked to a wireless system that gives real time information on parking availability. Given that Kirkland's on-street system is neither pay-to-park nor set up to wirelessly collect parking data; an on-street app is not a reasonable strategy to pursue at this time.

Timing: Longer term
Cost: High

⁵ Bill Hurrell, PE, Senior Vice President, Wilbur Smith Associates, *Technology and Parking*. Presentation to Metropolitan Transportation Commission on Design, Community & Environment, March 25, 2011.

V. SUMMARY

All cities have varying customer culture, operating and management structures and goals and objectives for their public parking systems. What may be unique to Kirkland is that its parking supply has consistently operated at high occupancies; a situation that indicates a vitality many cities would love to emulate but a situation that comes with frustrations and difficulty for those attempting to access businesses, services and amenities in downtown Kirkland.

When parking systems are highly occupied, new approaches to managing, operating, developing and pricing parking are necessary. Any of these approaches, however, requires new resources and a recognition that changes to the status quo operating system must be made. Kirkland is at a point where continued reliance on the existing supply of parking with the existing operational strategies is untenable. Unless meaningful efforts are made to direct users to specific parking areas (where new capacity may be available), transition users (particularly employees) to arrive by non-auto modes, and/or add new supply, the long-standing frustration with the system will continue.

The considerations contained in the background technical memoranda supporting this summary report were structured with this in mind. We have attempted to provide a starting point for Kirkland that is both strategic and reasonable. This begins with branding and identifying the parking system itself, followed by signage, wayfinding and marketing and communications. These initial steps, if implemented, would provide a solid foundation upon which to build additional and more sophisticated technologies. We also strongly recommend that Kirkland explore a strategic and incremental expansion of pay to park technologies. This is based on the premise that existing perceptions and realities related to parking constraints in downtown Kirkland cannot be effectively solved if the singular operating principle is that all parking remain free to all users of the public parking system. Finally, pursuing new supply is also reasonable, but expensive. New supply will function much more efficiently when linked to the overall “package” of strategies outlined here.



RICK WILLIAMS CONSULTING

Parking & Transportation

610 SW Alder, Suite 1221
Portland, OR 97205

Phone: (503) 236-6441 Fax: (503) 236-6164

E-mail: rick.williams@bpmdev.com

MEMORANDUM

TO: David Godfrey, City of Kirkland

FROM: Rick Williams, RWC

Owen Ronchelli, RWC

DATE: July 15, 2014 [4]

RE: Tech Memorandum: Task 5 – Evaluating Options for Increased Parking Supply

I. BACKGROUND

The City of Kirkland is interested in evaluating opportunity sites where additional parking may be available to better serve employee and visitor parking demand, particularly during high peak demand periods. To this end, a number of off-street sites were selected for data sampling as were on-street areas on Market St., Waverly Way and Lake Avenue West. Survey crews conducted inventories of these parking resources and collected hourly occupancy data over a 14 hour period on two days, Wednesday June 25 and Thursday June 26, 2014.

II. STUDY AREA AND INVENTORY

Figure A
Parking Study Area – Sample Sites

There were a total of four on-street locations and eight off-street facilities studied as illustrated in **Figure A**.

Table 1 (page 2) details the sampled inventory.

A. On-street

The survey team sampled four on-street locations, including both sides of Market Street between Central Way and 4th Avenue, the north side of Waverly Way between Market and 2nd Street West, and the north side of Lake Avenue West from Market Street west a quarter of a mile. The on-street survey sample totaled 106 stalls.



B. Off-street

The off-street sample included nine facilities. These included Market/Lakeshore, Lakefront lot, Lake/Central lot, the Antique Mall, Saint John’s Episcopal Church lot, Merrill Gardens structure, The 101 structure, and the Kirkland Waterfront Market Lot surface lot located between Merrill Gardens and The 101. There were a total of 1,103 off-street stalls in the survey sample.

Table 1
Sample Inventory: by Location

On-Street Facilities	Number of Stalls
Market Street – East side (between Central & 4 th Ave)	14
Market Street – West side (between Central & 4 th Ave)	15
Waverly – North side (between Market & 2 nd St W)	25
Lake Avenue W – North side	52
On-Street Subtotal	106
Off-Street Facilities	Number of Stalls
Market/Lakeshore	17

Lakefront	99
Lake/Central	55
Library Garage	
- Library use only	62
- 4-Hour visitors	163
- Permit Parking	176
Antique Mall	88
Church Lot - Saint John's Episcopal Church	71
Merrill Gardens	
- Accessory	35
- Pay to Park	18
- MG service/employee vehicles	33
- 2-Hour public parking	15
The 101	
- Bank of America	41
- Pay to Park	14
- Permit Parking	13
Kirkland Waterfront Market Lot	97
Off-Street Subtotal	997
Total On & Off-Street Stalls Surveyed	1,103

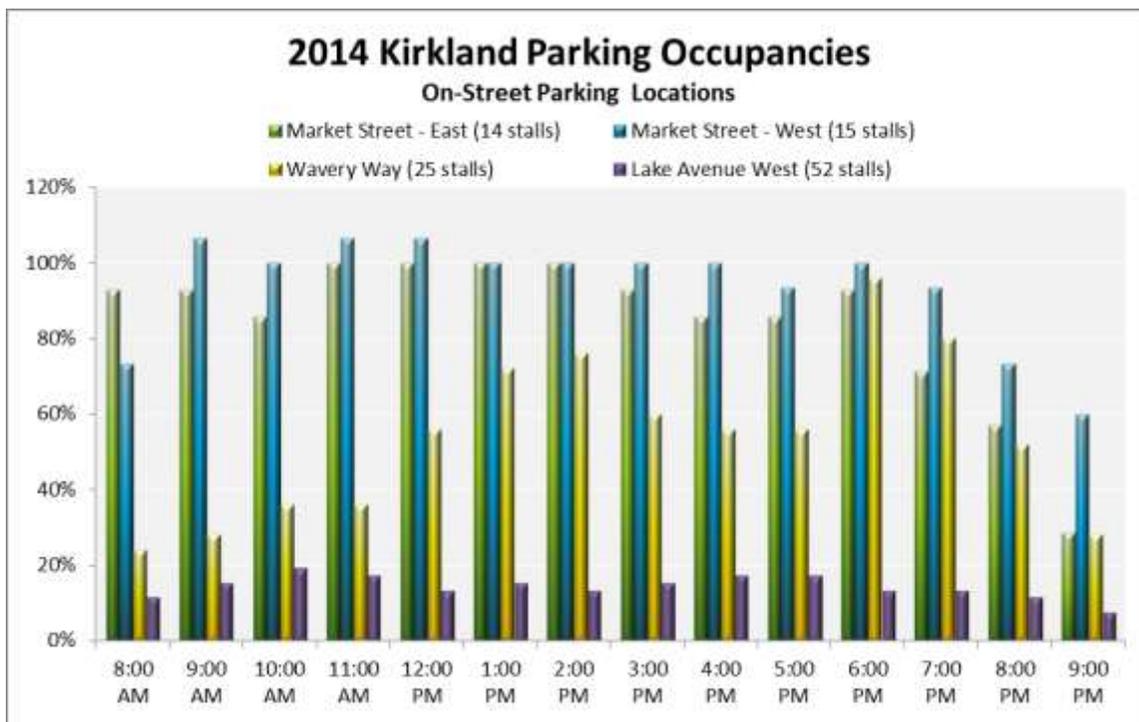
III. FINDINGS: PARKING OCCUPANCIES

The overall findings of the parking sample are outlined below for both the on-street and off-street sample sites.

A. On-street parking

On-street parking was measured hourly on Market Street, Waverly Way and Lake Avenue West between 8:00 AM and 9:00 PM. A total of 106 stalls were measured.

Figure B



As **Figure B** illustrates, occupancies on both sides of Market Street are fully maximized throughout the day.

- Parking stalls located on the west side of Market Street are 100% occupied from 9:00 AM to 7:00 PM. At certain points of the day, parking on this side of Market Street exceeds 100% as vehicles are parked illegally.
- The east side of Market Street is constrained for most of the day (85%+) but has a little more variation than the west side between 3:00 PM and 6:00 PM.
- Waverly Way is less utilized, likely due to its distance from downtown, but reaches nearly 100% at 6:00 PM.
- Lake Avenue West currently has 7 stalls that allow general public access. These 7 stalls are well used, averaging about 95% occupancy. The remaining 45 stalls (extending westward) are signed permit only (for residential uses). These 45 stalls are empty for the majority of the day and could be managed to provide other permitted uses (e.g., employees) through a managed program. Over the course of the sample day, surveyors counted less than three vehicles parked in this area of Lake Avenue West.

With the exception of areas on Lake Avenue West,, these three on-street parking areas are fully maximized, with little opportunity for attracting additional users.

1. Additional On-street Parking Opportunities

During the on-street data collection effort, the consultant team evaluated the possibility of creating additional parking capacity along the south side Waverly Way on the north side of Heritage Park. These would be “add back” stalls, stalls added to areas where parking is not currently allowed. These stalls could provide some additional parking capacity for downtown employees and potentially for some longer term visitors or waterfront event goers (e.g., Farmers Market). There may be traffic engineering reasons why these stalls cannot be added.

For Waverly Way, the crew began measuring 30 feet east of the eastern Heritage Park parking lot exit (to allow for proper site lines) and continued eastward along Waverly Way stopping approximately 90 feet west of the west Heritage Park exit. This resulted in 575 linear feet of roadway shoulder available for up to 25 parking stalls, using a standard of 23 feet for each parallel on-street stall. Parking on both sides of Waverly in this location would slow traffic speeds, provide additional parking capacity and would be consistent with the two-sided street parking further west on Waverly Way (west of 5th Street West). As with the recommendation for Lake Avenue West, these stalls could be provided in a time limited format with limited permits (sold to employees or residents) as demand dictates.

With the exception of the permit only area of Lake Avenue West, the sampled on-street sites are fully maximized, with little opportunity for attracting additional users.

Evaluating sales of limited number of employee permits on Lake Avenue West is an opportunity (up to 45 stalls). Similarly, “adding back” parking on the south side of Waverly Way (along Heritage Park) could be advantageous if there are no issues with traffic related to an add back. There is potential here for 25 new stalls.

Table 2 summarizes the field observations for the additional add-back parking opportunity.

Table 2
Additional On-Street Stall Potential – “Add-backs”

On-Street Location	Linear Feet of Roadway Available for Parking	Number of Stalls
Waverly – South side (between Market & 2 nd St W)	575	25

B. Off-street facilities

The off-street sample included nine facilities, which included the Library Garage, Market/Lakeshore Plaza, the Lakefront lot, Lake/Central Lot, the Antique Mall, Saint John’s Episcopal Church, Merrill Gardens parking structure, the 101 structure, and the Kirkland Waterfront Market Lot located on 1st Avenue between Merrill Gardens and the 101. There were a total of 997 off-street stalls in the survey sample. As with the on-street sample, occupancies were measured every hour between 8:00 AM and 9:00 PM.

1. Library Garage

There are three areas within the Library Garage dedicated to specific users – Library only (62 stalls), 4HR Visitor (163 stalls) and Permit Holders (176 stalls).

Figure C provides an hour by hour look at how these areas operate over the course of a day.

As **Figure C** illustrates, the Library Garage is fully maximized for sustained periods of the day, in each designated use area. Each use category exceeds 90% occupancy for at least three hours. Visitor stalls exceed 90% occupancy between 1:00 and 6:00 PM (reaching 100% at 6:00 PM). Permit stalls remain above 85% between noon and 4:00 PM, bumping up again at 6:00 PM. General findings conclude:

- There is little opportunity to redistribute uses in the garage (between categories) for most of the day; that period between 11:00 AM and 6:00 PM.
- There is some opportunity after 5:00 PM to “re-designate” all stalls to general use. This would allow visitors to use Library only and Permit stalls in the evenings. As the figure illustrates, permit holders begin existing the facility at 4:00 PM. Transitioning uses after 5:00 PM could be accomplished through signage.
- Peak use/demand of the permit area (exceeding 85%) suggests that the price for a permit is too low.

City owned off-street facilities are fully maximized. The City should explore pricing as a means to manage access and constraints.

Evening use at the Library Garage could be better facilitated by “blending” stall designations after 5:00 PM.

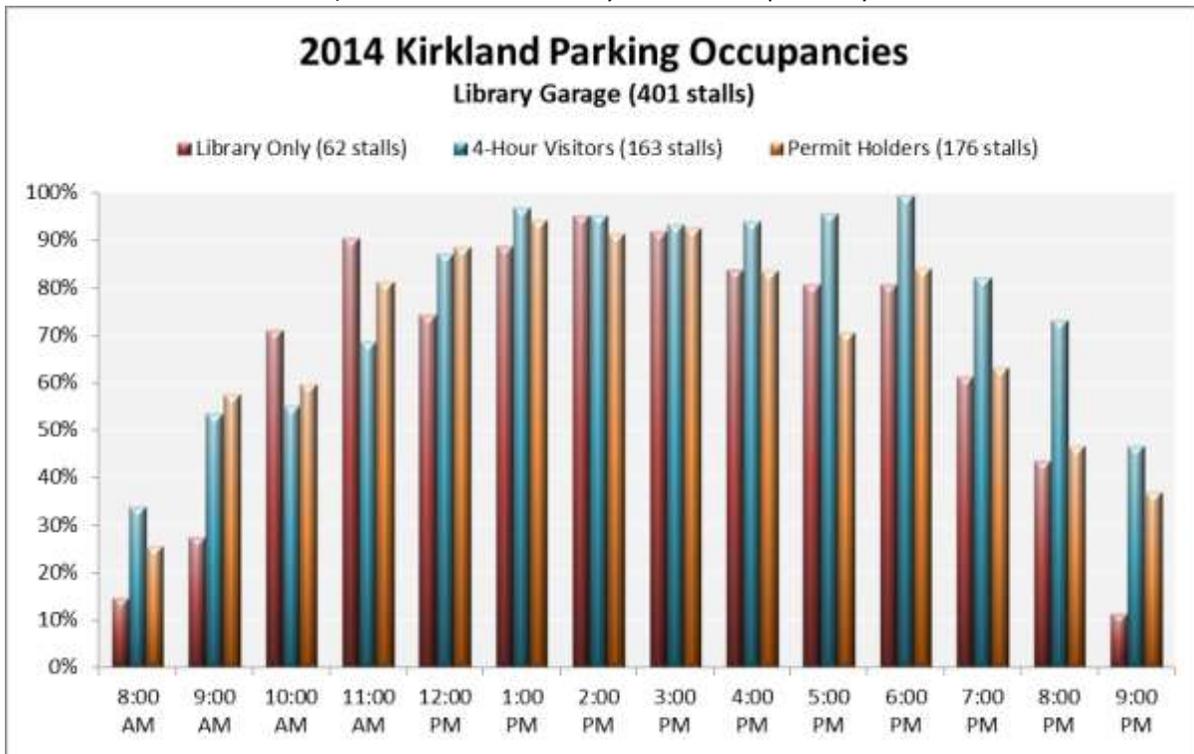
There are also opportunities to increase employee supply at the Antique Mall Lot and move (through incentive) some employees to the Church Lot. This would free up stalls for visitors in other areas of the downtown.

Finally, there are some opportunities to better utilize parking supplies at Merrill Gardens and The 101, but this would require input and agreement from private owners.

Figure C
Occupancy: Library Garage

2. City Owned Surface Lots

Occupancy samples were collected in three City-owned surface lots (i.e., Market/Lakeshore Plaza, Lakefront and Lake/Central). All three lots are fully maximized, primarily from 11:00 AM to 8:00 PM.

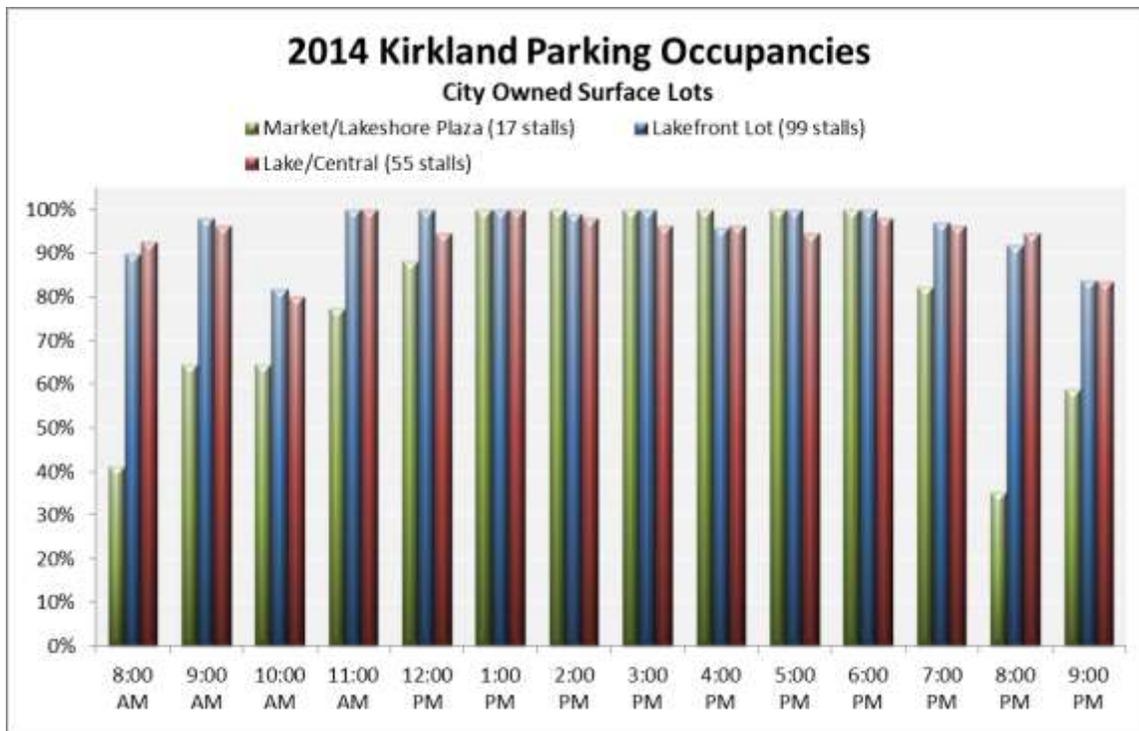


Hourly occupancy performance is summarized in **Figure D**.

As **Figure D** illustrates:

- The Lakefront and Lake/Central lots are fully maximized (over 90%) for the entire day; particularly between the hours of 11:00 AM and 8:00 PM.
- Interestingly, occupancies do not vary during periods when the parking is free (before 5:00 PM) and when it is pay-to-park (after 5:00 PM).
- These occupancies suggest that additional and expanded pay-to-park options should be explored to manage access and constraints.
- Market/Lakeshore Plaza sees decreasing use after 6:00 PM, but with only 17 stalls it does not present any significant opportunity for additional uses.

Figure D



3. Merrill Gardens

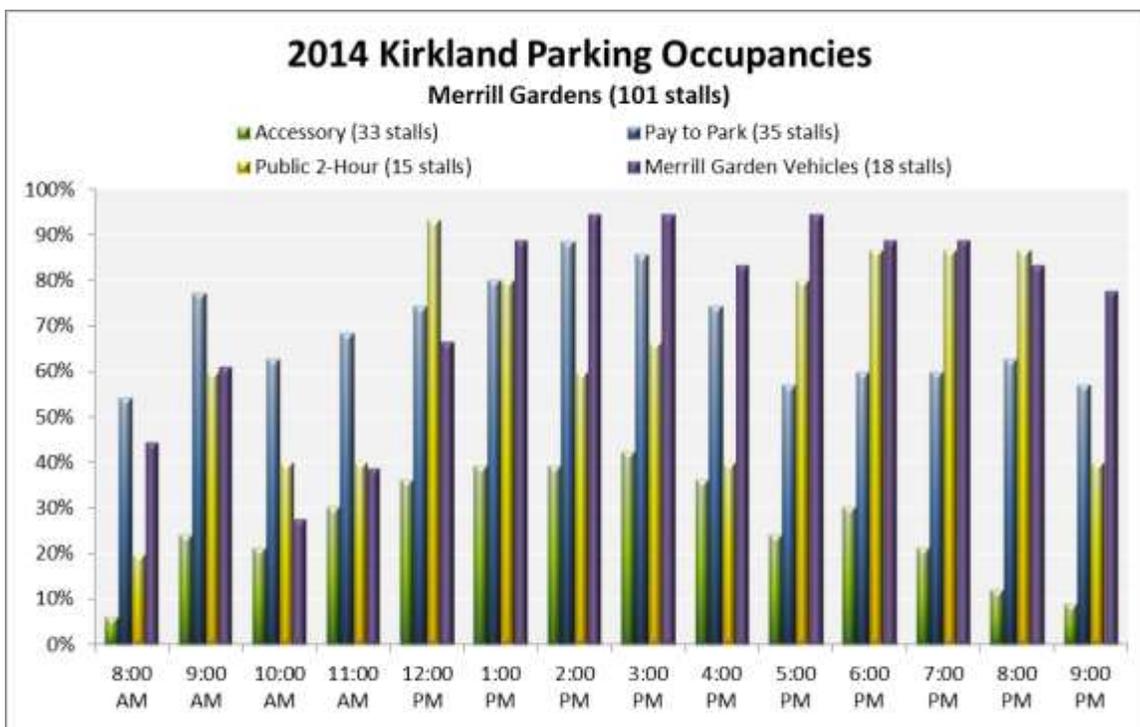
There are four parking “areas” within the Merrill Gardens parking supply. These include Public 2-hour free parking (15 stalls), “accessory” parking specifically for Merrill Gardens tenants (33 stalls),¹ pay-to-park through a slot box or by cellphone (35 stalls) and “Merrill Gardens Vehicles” (18 stalls) which is associated with senior living units. Hourly occupancies for Merrill Gardens are provided in **Figure E** (page 8).

As **Figure E** illustrates:

- The most significantly used parking at Merrill Gardens is that which is associated with the senior living units. Beginning at 1:00 PM these stalls run at or above 85% through 8:00 PM.
- The free 2-Hour parking peaks at about 94% at noon then fluctuates downward between 1:00 and 4:00 PM; raising again above 85% between 5:00 and 8:00 PM.
- Pay-to-park stalls are well utilized throughout the day, exceeding use of the 2-Hour free stalls between 1:00 and 4:00 PM. After 4:00 PM use of pay-to-park stalls stabilize at around 60% through 9:00 PM.
- Accessory stalls never exceed 45% occupancy throughout the entire day.

¹ “Accessory parking” is defined as parking that is limited to specific users only and not allowed for general public access. Accessory parking is usually identified by signage indicating “parking only for.....” In City codes, accessory parking is usually parking that is required to meet minimum parking demands of a site and is primarily intended for the users (residents, employees and/or customers) of that specific land use.

Figure E



Overall, there is some opportunity for a more evenly distributed use of stalls that allow public use (pay-to-park and 2-Hour). Given that use of pay-to-park is strong (at times exceeding use of 2-Hour free stalls) the City should consider converting the free stalls to pay-to-park. This would “equalize” the supply and distribute use to minimize peak constraints of the free stalls.

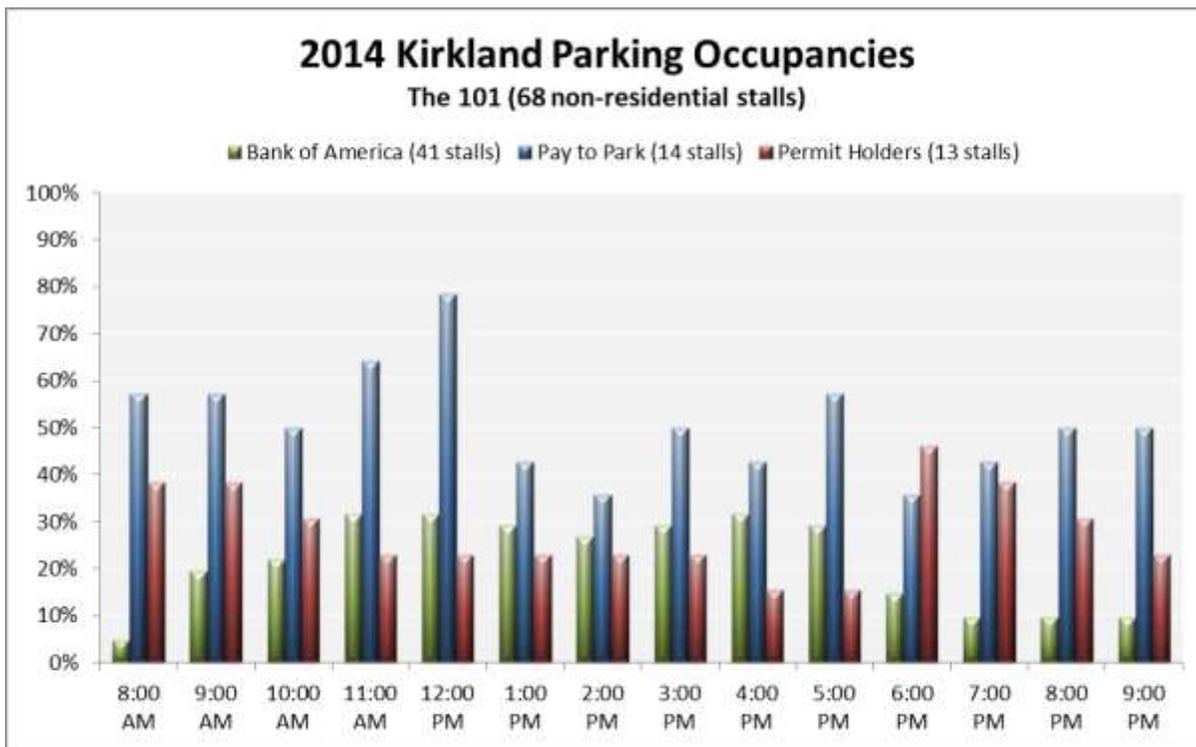
4. The 101

There are three parking “areas” within The 101 parking supply. These include “accessory” stalls intended only for users of Bank of America (41 stalls), pay-to-park (14 stalls) and permit only (13 stalls). Hourly occupancies for The 101 are provided in **Figure F** (page 9).

As **Figure F** illustrates:

- The combined supply is underutilized.
- The pay-to-park stalls are the most highly utilized, reaching 80% occupancy at noon.
- A portion of the Bank of America stalls (41 stalls) could be sold as permit stalls to employees. This would increase employee supply but have little impact on current visitor uses to the bank.
- The opportunity to explore transitioning Bank of America stalls and Permit Holder stalls to more general access pay-to-park (e.g., after 5:00 PM) should be explored. This may already be the case, but could be enhanced through signage that clearly communicates public availability after hours.

Figure F



The 101 has some opportunity to operate in a manner that better maximizes its supply. This could be accomplished through reformatting existing stalls, increasing permit stalls and consolidating uses after hours.

5. Third-Party Surface Lots

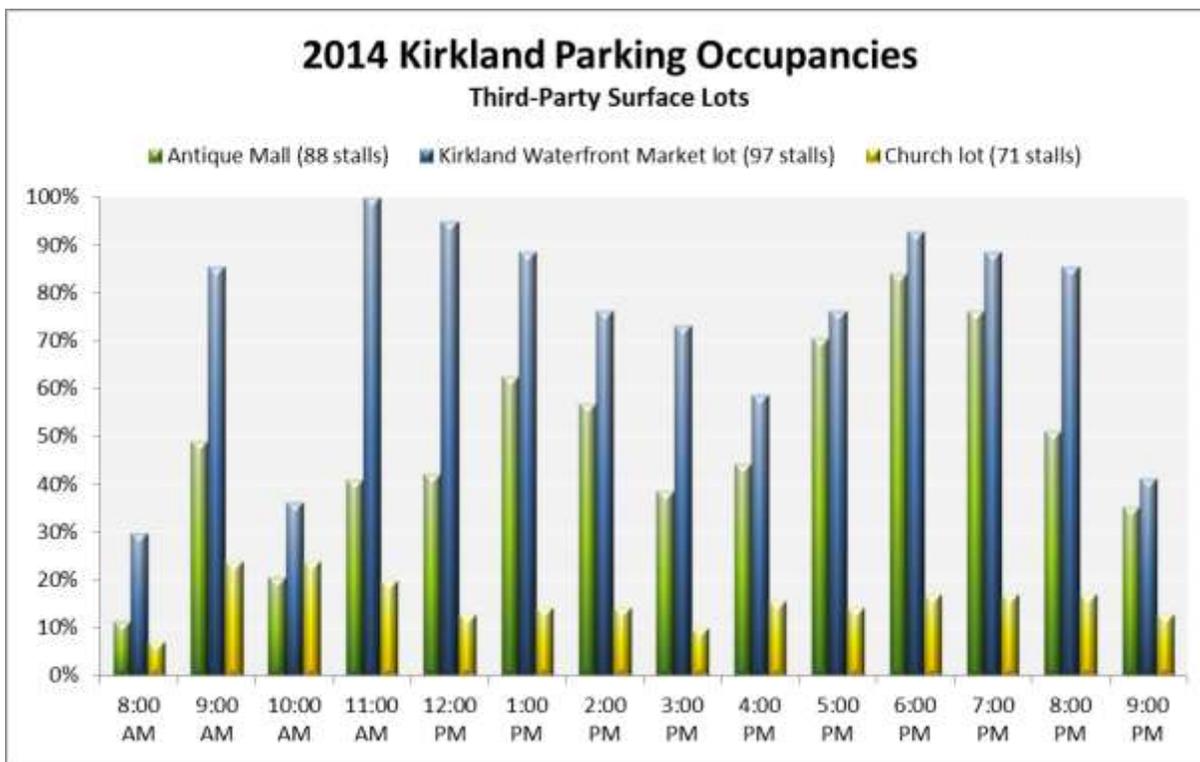
Three additional surface lots were evaluated during the study day. These included the Antique Mall (88 stalls) which is privately owned but operated by the City, the Kirkland Waterfront Market Lot (97 stalls) and the “Church Lot” (71 stalls), owned by Saint John’s Episcopal Church. Hourly occupancies for these lots are provided in **Figure G** (page 10).

As **Figure G** illustrates:

- The Kirkland Waterfront Market Lot is well used, peaking at 100% at 11:00 AM and again at 6:00 PM (93%).
- The Antique Mall Lot (which is pay-to-park) is not well used during the day (8:00 AM – 4:00 PM), but sees increased use in the evenings (after 5:00 PM). Given this, the City should consider selling an additional 15-20 employee permits that allow use between 8:00 AM and 5:00 PM. This would better maximize the lot and avoid conflicts with visitors.

- The Church lot presents itself as an opportunity for employee parking. The lot does not exceed 30% occupancy at any point throughout the day. Given its location, it is likely incentives may need to be developed to entice employees to use the lot (i.e., rate).

Figure G



The Antique Mall and Church Lots offer opportunities for enhancing access for employees. If coordinated with other lots, areas and pricing, getting employees into these lots would have beneficial impacts on the on-street supply (if employees are using that supply) and reduce conflicts with visitor parking.

IV. SUMMARY

Based on the sampled parking supplies, it is apparent that parking utilization in the downtown operates at a very high level. This is reflected in numerous constraint points by area and by location. This finding is consistent with previous parking studies.

Therefore, opportunities to create significant new options within existing supplies will be small scale and need to be strategically applied. However, the data does provide input that will allow for better coordination of areas where parking “surpluses” exist. Opportunities to pursue include:

On-street

- A. Evaluate selling a limited number of employee permits on Lake Avenue West (up to 45 stalls). This area is currently “permit only” for residential users. As such, these 45 stalls are literally unused during the business day (8:00 AM – 6:00 PM). Allowing limited use by employees would have little, if any, impact on residential access during normal weekday business hours and, potentially, relieve constraints in the central downtown.
- B. “Add back” parking on the south side of Waverly Way (along Heritage Park). This could be advantageous if there are no issues with traffic related to an add back. There is potential here for 25 new stalls. When combined with the recommendation for Lake Avenue West, the total available supply of parking would increase by 70 stalls.

Off-street

- A. Explore expanded hours for pricing in City lots as City owned off-street facilities are fully maximized and there is little difference in occupancies when parking is free (before 5:00 PM) or when pay-to-park is in effect (generally after 5:00 PM). The City should explore pricing as a means to manage access and constraints.
- B. Consider charging for permits in the Library Garage. Occupancies in permit stalls in the Library Garage generally exceed 90%. This suggests that permit rates are too low and there is a rate of demand that warrants a parking charge.
- C. “Blend” stall designations in the evenings (after 5:00 PM) for use at the Library Garage. This would allow the stall to operate as a fully general use garage at night, when permit use drops and visitor demand increases.
- D. Evaluate selling a limited number of employee permits at the Antique Mall (8:00 AM – 5:00 PM). This would fill in currently unused stalls midday without impacts on visitor use.
- E. Move (through incentive) some employees to the Church Lot. This would free up stalls for visitors in other areas of the downtown. This type of strategy will be better supported if there is more variation in employee rates for permits in the nearer in downtown.
- F. There are some opportunities to better utilize parking supplies at Merrill Gardens and The 101, but this would require input and agreement from private owners.



Draft Final Report Appendix B

RICK WILLIAMS CONSULTING
Parking & Transportation

610 SW Alder, Suite 1221
Portland, OR 97205
Phone: (503) 236-6441 Fax: (503) 236-6164
E-mail: rick.williams@bpmdev.com

MEMORANDUM

TO: David Godfrey, City of Kirkland
FROM: Rick Williams, RWC
Owen Ronchelli, RWC
DATE: September 8, 2014 [2]

RE: **DRAFT: Technical Memorandum: Tasks 2 & 4 – Technology and Way finding**

I. BACKGROUND

As part of a general assessment for identifying parking opportunities in the downtown, the City of Kirkland is interested in evaluating potential strategies that will enhance the customer experience downtown and optimize utilization of the existing parking supply while minimizing negative impacts. Strategies of interest include infrastructure, new parking technologies and programs. The City is interested in systems that could be deployed both on- and off-street, in publicly controlled supply and that will best integrate with, and improve, current levels of parking management within the City.

II. APPROACH

This Technical Memorandum will first summarize “what options are out there now,” an outline of parking technologies (“high and low tech”) being explored by cities of similar size (and similar parking demand levels) to Kirkland. Each technology discussion is followed by a summary as to the applicability of that strategy for Kirkland. We will summarize a set of strategies and improvement considerations that would be most reasonable and feasible for Kirkland to consider and/or pursue now or in the near future.

As with any review and consideration of new technologies, it is recognized that such systems come with both cost and increased responsibility for the City in managing, marketing and maintaining them.

III. EXECUTIVE SUMMARY

Investments in new parking technologies and programs can be costly. To this end, it is important for Kirkland to consider strategies that are most appropriate to its current level of services and resources. It is also important to recognize that, many stakeholders have expressed the opinion that downtown Kirkland has significant parking problems that limit access and affect both near-term and future issues related to vitality. Addressing these issues will require changes and/or investments that exceed status quo approaches and resources.

The considerations outlined below attempt to provide a starting point for Kirkland that is both strategic and reasonable. The strategies presented should be viewed as building blocks that, once initiated, provide a framework upon which additional, and often times more complex, strategies can be layered over time, or as demand increases and resources become more available. A number of strategies were evaluated. They are outlined here in three categories that include:

Phase 1: Strategies to pursue now (0 – 12 months)

Phase 2: Explore now and consider for near-term implementation (1 – 3 years)

Phase 3: Not viable at this time (3+ years)

PHASE 1: Strategies to pursue now

Pay to Park

- The City should explore opportunities to (a) strategically expand/phase-in paid parking in high constraint areas and/or (b) initiate a pilot program of on-street smart meters to test their effectiveness in influencing demand and mitigating constraints.

Wireless Sensors (off-street)

- Install in-lane lot counter systems where feasible at City owned or controlled lots as a reasonable and cost effective strategy for (a) collecting real time data at City off-street lots and (b) creating a foundation for linking occupancy information to exterior signage or in road guidance systems.

Branding/Logo Identity/Identification

- Pursue a coordinated branding strategy for incorporation into a larger marketing and communications package for customer/visitor parking downtown.
- Create a consistent visual standard “package” for facility entry areas that represents the Kirkland parking brand. This standard should then be applied to each City owned or controlled parking facility coupled with a format that labels the parking facilities by address.

Marketing/Communications

- Establish a marketing/communications budget and invest in on-going marketing and communications efforts to support the Kirkland parking brand and raise awareness and use of parking assets.

PHASE 2: Strategies to explore now and consider for near term implementation

Wayfinding

- As Kirkland moves forward with efforts to create and implement a coordinated brand strategy for its customer/visitor parking system, consider incorporating dynamic signage/guidance systems into the overall strategy, implemented as appropriate to time and budget.
- Create a consistent visual standard “package” for facility entry areas that represents the Kirkland parking brand. This standard should then be applied to each parking facility.

Parking Applications (“apps”): Off-street

- A parking “app” linking information on real-time availability of parking in City parking assets to smart phones should be explored for the off-street system if investments are made in in-lane lot/garage counter systems as described above.
- The City could examine opportunities that might be available through apps that are not linked to data collection systems, but rather more “crowd sourcing” based, which relays information from users in an area (or at a stall) as to parking availability.

PHASE 3: Strategies not viable at this time

Wireless Sensors (on-street and interior overhead)

- Barring a system of paid on-street parking, it is doubtful that full scale use of in-ground sensors would be feasible for Kirkland given the cost to install and maintain such a system. Current applications (in paid environments) are having difficulty demonstrating cost recovery for such systems.
- An overhead sensor system is likely too expensive for use at the Library Garage, though such a system could create access and circulation efficiencies for users of the facility.

Pay-by-Phone (or Cell)

- Until there is a larger (critical mass) of pay to park options in downtown Kirkland, pay by phone is not a viable technology for Kirkland’s publicly owned parking.

Parking Applications (“apps”): On-street

- A parking app for the on-street system is likely not cost-effective given the costs for providing the connection of sensors that are necessary to the “wireless link.”

DRAFT

IV. PARKING TECHNOLOGIES – WHAT IS AVAILABLE

This section is concerned with evaluating parking management technologies and how they might be applicable or beneficial to the City of Kirkland in its coordination of the public supply of parking downtown. For purposes of this evaluation, technology options are presented in three categories that include:

Phase 1: Strategies to pursue now (0 – 12 months)

Phase 2: Explore now and consider for near-term implementation (1 – 3 years)

Phase 3: Not viable at this time (3+ years)

PHASE 1: Strategies to do now (0 – 12 months)

A. Pay to Park

Rick Williams Consulting recently completed an assessment of parking capacity in the downtown. The findings of this assessment are summarized in *Tech Memorandum: Task 5 – Evaluating Options for Increased Parking Supply* (dated July 15, 2014). General findings indicate that both on and off-street parking in the downtown is highly constrained; a finding that confirms previous studies of the downtown Kirkland parking situation. The Technical Memorandum identified a limited number of “opportunities” where unused capacity could be directed, but these totaled less than 50 stalls in City owned or controlled spaces. For the most part, City facilities and parking resources are fully maximized for significant periods of each day.

Interestingly, there is little variation in utilization in parking stalls that are currently provided free of charge and those that are provided at a cost. The City employs “smart technology” in a very limited manner in some of its off-street lots (i.e., Lake/Central and Lakefront); using wireless multi space parking meters to collect parking fees. City fees are in place during specific hours (after 5 pm) and in limited locations. When pay to park is in effect, stalls are well utilized.

Opportunities to manage constrained parking demand are likely to be ineffective without some form of pay to park. This includes demand management strategies that would include encouraging use of shared facilities, linking remote lots and encouraging use of alternative modes. Given that pay to park is already in place (in a small percentage of the supply), the City should look to expand the percentage of supply that is pay to park and expand the hours of day during which stalls are provided at a cost.

Pay to park technology is available; in formats that represent newer and more sophisticated generations of revenue collection than what the City currently has in place.

Smart meters can be provided in a “multi-space” format (MSM), whereby a single meter or pay-station serves as a revenue collection point for more than one parking stall, or a “single-space” format (SSM), which replicates traditional coin parking meters with a unique meter serving each individual stall. Cities around the country are benefiting from transitions to MSM and SSM “smart” systems. Both systems provide a variety of useful functions. These include but are not limited to:

- Local and remote reporting capabilities.
- Multiple payment methods (e.g., coins, credit/debit cards, smartcards, loyalty cards).
- Remote programming.
- Real time reporting and credit card processing
- Improved high tech design(s) versus traditional parking meters.
- Reduced downtime with fewer meter malfunctions.
- Reduced time spent on coin collection and the accurate auditing of collections.
- Increased revenue potential.
- Pay-by-space or Pay-and-display payment options (MSM’s).
- Local and centralized management of rate structures (flexibility).
- Solar powered (but can be hard wired at a higher cost).

Costs for MSM and SSM equipment can vary widely depending on type of technology and number of units purchased. There are also varying costs associated with software support, back end charges, transaction fees, warranties and on-going maintenance. Other issues to examine moving forward would be compatibility with existing enforcement procedures and equipment/software.

The average cost of an MSM pay station ranges from \$7,000 - \$10,000 per unit.¹ This translates to approximately \$700 - \$900 per parking stall, depending on number of stalls per block face served. The average cost of a wireless SSM is \$500 - \$700 per parking stall.

Table 1 provides a summary of recent research into equipment costs.

¹ This cost estimate is derived from recent request for proposal processes that RWC has been involved in within the past two years. This included the cities of Ventura and Union City, CA, Tacoma and Seattle, WA and Portland, OR. Costs will vary based on the size of the purchase involved, the vendor and package of technologies requested. Additional cost estimates were derived from direct interviews with cities across the country using MSM and SSM technology. As stated, costs will vary by City and unique circumstances inherent to unique and complex parking systems. Estimates here should be used only for purposes of increasing understanding of MSM and SSM systems and assisting in decision making as cities consider upgrades or expansions within on-street inventories.

**Table 1
Cities with Recent Smart Meter Purchase – Cost to Purchase/Operate²**

Type	Cost per Station (Unit) ³	Captured time Sensor ⁴	Cost of Installation (per unit)	Extended Warranty (per unit)	Annual Maintenance (per unit)	Annual Supplies (per unit)	Annual Wireless charges (per unit)	Transaction Fee	Credit Card fees
Multi-space Meter (MSM)	\$7,150 - \$10,000	Not needed	\$300 - \$833 ⁵	\$500	\$1,100 - \$1,500 per station	\$150 - \$250	\$420 - \$510	None found	\$0.025 - \$1.00
Single Space Meter (SSM)	\$495 - \$600	\$200 - \$225	\$45 ⁶ (meter) \$45 (sensor)	\$50	\$30 ⁷	N/A	None found	\$0.06 - \$0.13 per transaction	\$0.025 - \$1.00

New administrative functions such as back office systems, credit card processing and new approaches/requirements related to maintenance and servicing are needed to support these systems. These functions can be integrated into existing support operations or could come with new costs to a City like Kirkland that does not have an extensive in-house parking management program or division. Education and outreach must be enhanced as well to assure customer understanding and acceptance of a new technology.

Applicability to Kirkland

- *Given Kirkland’s very high parking demand, moving to a more comprehensive system of paid parking on- and off-street would improve access capacity for users of the downtown and mitigate on-going constraints in the parking system.*

² All costs are estimates based on best efforts to assemble reasonable and accurate data through interviews with actual cities using the two different technologies. Information was also supplemented with on-line research and review of vendor marketing information and other sources. These estimates should only be treated as reference points, leading at a later date to refinement that would relate directly to Kirkland’s needs and program requirements.

³ Per unit costs for MSM technology need to be divided by the number of stalls being controlled by the unit to derive an apples to apples comparison with SSM “units” that are deployed one per parking stall.

⁴ When a customer leaves a parking stall early, any unused time on the “meter” can either accrue to the City or to the user. With an MSM, the meter in effect “resets” once a vehicle leaves, thus unused time paid for is “captured” by the City. This does not happen with an SSM unless a sensor is placed in the parking stall that senses the vehicle and resets the meter once the vehicle leaves. If cities wanted to also use sensors to count cars or create additional options related to enforcement, then such a vehicle detection sensor would be used with MSM’s as well (and its associated costs).

⁵ Cost range based on data provided by four cities that recently installed MSM systems.

⁶ Installation cost is estimated using two person teams (@ \$45/hr. fully loaded labor cost) taking 30 minutes to replace the unit (in an existing meter) and move on to the next one.

⁷ This number was derived using a recommended spare parts list (\$22.67 per meter) divided over 3 years, plus credit card reader cleaning (@ 15 minutes) twice a year.

- *Paid on-street parking would be effective in moving employees - who may be parking on-street – into off-street locations and/or alternative modes.*
- *Paid on-street parking would provide revenues that could be used to increase supply (new parking, invest in other downtown access improvements and/or encourage alternative modes as a way to mitigate current parking constraints/deficits.*

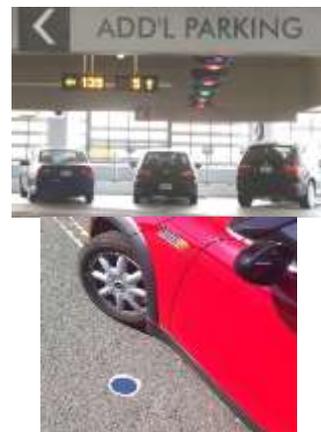
B. Wireless Sensors

When discussing on-street parking technology, the emergence of wireless sensor technology is now frequently considered. Stall sensor systems for *on-street* parking are currently being piloted in many cities along the west coast (e.g., Vancouver, WA, Corvallis, OR, Los Angeles, Redwood City, San Francisco and San Mateo, CA, to name just a few) to track utilization of individual parking stalls “in real time.” The Portland, Oregon International Airport deploys overhead stall sensors with a red light/green light display to both count vehicles and alert users to available stalls (green light) in its garages “*off-street.*” This has improved circulation and congestion issues in its very large garages (i.e., garages very much like the City’s Library Garage).

“Lower technology” *off-street* garage/lot counter systems have been around for many years. These entail installing in-lane loop detectors in entry and exit lanes that service a parking facility. The loops count vehicles passing over entry lanes and deduct the number of vehicles exiting over egress lanes. The “net” quantifies available stalls, which can be transmitted to exterior reader signs or in-road directional signage.

Vendors now offer sensors integrated into smart -credit card-capable meters; but most current applications are stand-alone sensors embedded in the street (or less frequently, curbside) and linked to either multi-space pay-by-space meters, single-space credit card-capable meters and/or on-site and in-roadway informational and guidance signage. The leading firms provide robust back-end software that can take information from pay-by-space meters (and also pay-by-phone applications) to provide “real time” parking metrics data and analysis. These systems also have significant “directed enforcement” applications for on-street parking with interfaces to most major handheld vendors using open systems. This feature can improve the effectiveness of parking enforcement, reducing overall enforcement costs and/or increasing citation efficiency.

Each of these systems (on and off- street) have proven to be very dynamic and can generate a wealth of data, which can translate into databases that facilitate decision-making related to rates/demand and communicate beneficial information to users. The traditional off-street entry/exit lane counters have (a) proven most cost effective and (b) have been in use within the industry for a long time.



Example: Overhead and in-ground parking sensor systems.

It should be recognized that much of the new sensor technology is still evolving and has not been fully proven in large-scale environments; for reliability and return on investment. Issues that are still being addressed include sensor accuracy, detection and transmission latency (i.e., delays in transmission), interference from other electrical sources, and the ability to handle all types of spaces (parallel, diagonal, and perpendicular) and all types of vehicles (motorcycles, oversized trucks, etc.). At present, the greatest obstacle to wide adoption of sensors is cost. Sensors have both substantial upfront and ongoing per-space costs.



Example: Wireless Sensor System
[Source: TCS International]

Table 2 provides a summary of cost by type of sensor.

Table 2
Parking Sensors: Estimated Purchase and Operating Costs⁸

Type of Sensor	Cost to Implement	Cost to operate (annual)
In-ground (on and off-street)	\$150 - \$330 per space	\$50 - \$100 per space
Overhead (off-street: garage)	\$500 - \$1,110 per space	\$25 - \$50 per space
In-lane (off-street: lot or garage)	\$2,500 - \$5,000 per lane (i.e., entry/exit)	marginal

Kirkland may want to evaluate the usefulness of such systems through a pilot and use that information to determine the efficacy, type and interface that such sensors can provide to data collection, rate and enforcement functions for the City to the benefit of its access management program.

Applicability to Kirkland

- **PHASE 1:** *Installing in lane lot counter systems where feasible at City owned or controlled lots (and Library Garage) is a reasonable and cost effective strategy for (a) collecting real time data at City off-street lots and (b) creating a foundation for linking occupancy information to exterior signage or in road guidance systems.*

C. Branding/Logo Identity/Identification

Developing a parking system “Brand” is a trademark of “Best in Class” parking programs. The brand should quickly and uniquely capture a customer’s attention and communicate a positive image that distinguishes the parking product from the rest of the market. The brand is more than just a logo - a

⁸ Costs outlined herein are estimates derived from RWC review of parking industry literature, previous responses to requests for proposals and vendor sources. Costs are rapidly changing as technologies evolve; these estimates should be used only for informational purposes and assisting the City in considering opportunities appropriate for Kirkland.

community will know it has the right brand when the brand promotes the image the district wants people to have of the parking system (e.g., for customers, clean/safe, best in market, etc.). It should be as simple as saying “Easy Park,” “e-Park” or “SmartPark.” Ultimately, a positive patron experience should be your brand.



Branded Parking: Seattle WA

The brand should reinforce the positive aspects of the system – easy, smart, affordable and available. It should tie the system together. Finally, it should be used consistently in signage and other communications tools, reinforcing the product and providing information a customer can use. Best practices branding requires a commitment to brand all aspects of the parking program into a unified whole that makes the program look and feel professional.⁹



**Branded Parking:
Portland OR**

The 2002 *Downtown Kirkland Parking Study and Plan* specifically called for the creation of “a uniform signage package that incorporates a unique logo and color scheme for public parking facilities to establish a sense of recognition, identity and customer orientation for users of the downtown parking system.”¹⁰

As with branding, the name of parking facilities is extremely important in messaging. Names like Library Garage and Antique Lot do not communicate useful information to potential users; particularly transient customer/visitors who are infrequent users of a downtown. While such names may be identifiers of a property and important to the property owner (or easily recognizable to an employee who parks in a facility everyday), they do not convey direction or location to a transient customer/visitor seeking simple and convenient guidance to a parking stall.



**Kirkland: Existing
Parking “Brand”**

Industry best practices for naming off-street parking facilities suggests using addresses associated with the main auto ingress point into a facility. As an example, Portland, OR and Boulder, CO do a very good job in “branding” and identifying their parking facilities by location. As such, names like 10th & Walnut or 4th & Yamhill easily and intuitively communicate not just a brand (coupled with the system logo) but how to find the location. When integrated into web communications, apps, way finding signage

⁹ In 2004, Kirkland created new parking signage but did not fully develop a logo or initiate a system to communicate the Kirkland “brand.”

¹⁰ City of Kirkland, *Downtown Parking Study and Plan (October 2002)*, page 63.

and other collateral materials, the name of the garage not only communicates information to the user (location) but reinforces the brand the facility name is associated with.

Kirkland's facility naming format is not customer friendly or informative. For this reason, the City should consider renaming their facilities as part of a broader effort to brand its parking system. Given that the City owns or controls four facilities (inclusive of Antique Lot) the usefulness of a brand as a means to communicate this system remains as relevant today as it did in 2002.

Brand development can range in cost from \$10,000 - \$20,000, which would be the cost for designing a logo. Additional costs would be incurred as the brand is integrated into signage, collateral materials, web-sites and other communications.

Applicability to Kirkland

- *Pursue a coordinated branding strategy for incorporation into a larger marketing and communications package for customer/visitor parking downtown. At present there is no unifying relationship between City owned/controlled parking assets. Branding will serve as the foundation piece for establishing a true parking system. Branding also provides a basis for launching supporting programs related to signage, wayfinding and coordinated marketing and communications with customers/users.*
- *Create a consistent visual standard "package" for facility entry areas that represents the Kirkland parking brand. This standard should then be applied to each parking facility coupled with a format that labels the parking facilities by address.*

D. Marketing/Communications

Most of the strategies and technologies recommended herein require a sustained level of support necessary to communicate them to the public and ensure their success. Investments in branding, facility identification and presentation and signage are intended to increase awareness of a parking system by customers/visitors and to grow parking activity within an integrated parking inventory. To this end, any "new technologies" implemented in Kirkland will need to be integrated into a sustained marketing and communications effort for the parking system.



**Coordinated Marketing:
Seattle WA's e-Park**

A commitment to a brand results in a commitment to supporting that brand through routine and broad based marketing and communications. Marketing opportunities include (but are not limited to):

- Maps
- Web Pages
- “BannerAds” or media “drop ins.”
- Co-marketing opportunities with area businesses (e.g., java jackets, cash register tent cards, event sponsorships)
- Bag stuffers (distributed at retail outlets)
- Validations programs
- Incentive programs
- Customer Rewards
- Print
- Radio/TV
- Social media



**Coordinated Marketing – Webpage example
Long Beach, CA's RideParkPlay**

A successful program for marketing and communicating parking to the public maximizes the supply of parking built and establishes a resource that benefits area businesses (particularly those that have meaningful customer bases). Through marketing and communications, customers identify with a *product*, learn how to use it and what to expect. This reduces confusion and frustration and increases customer satisfaction.

Marketing and communications budgets vary by city and by size and complexity of the affected parking systems. Nonetheless, a commitment to a stable budget of funding for communicating the system will be required. Given Kirkland's relatively small system size (approximately 1,000 public stalls on and off-street); a budget range of \$18 - \$25,000 per year is recommended as a minimum amount to initiate marketing and communications efforts.

Applicability to Kirkland

- *Establish a marketing/communications budget and invest in on-going marketing and communications efforts to support the Kirkland parking brand and raise awareness and use of parking assets.*

PHASE 2: Strategies to explore now and consider for near term implementation (1 – 3 years)

E. Wayfinding

Parking guidance systems help drivers find their parking destinations more efficiently through the use of dynamic messaging street signs. Many cities now use dynamic signage within the public rights-of-way and on-site as a means to inform and direct customers to available parking. Portland, OR, Seattle, WA and San Jose, CA are good examples.

Dynamic signage is linked to occupancy information at individual or multiple parking sites (usually collected through loop detector/parking counter systems as recommended for Phase 1). This information is displayed on site in reader boards/blade signs at the building entry plazas and/or at remote locations to downtown, usually major roadway entry portals. When parking stall availability changes, so do the signs (see the Portland and San Jose examples above). The signs provide guidance information (an address or facility name) and information on real time stall availability. Showing drivers the right way to turn to find parking more quickly helps all drivers on the road find their way faster. That means reduced congestion, frustration, carbon emissions, and drive times. It also means happier drivers, and a greener city.



In-road Wayfinding: Portland, OR & San Jose CA

Such systems have been extremely effective both from a traffic/congestion point of view and in terms of stall management. Customers find the systems to be highly useful and “customer friendly.” Most systems can be programmed to link wirelessly to on-site counter systems (see B above) and are reasonably priced (\$10,000 for on-site signage/\$25 - \$45,000 in rights-of-way).

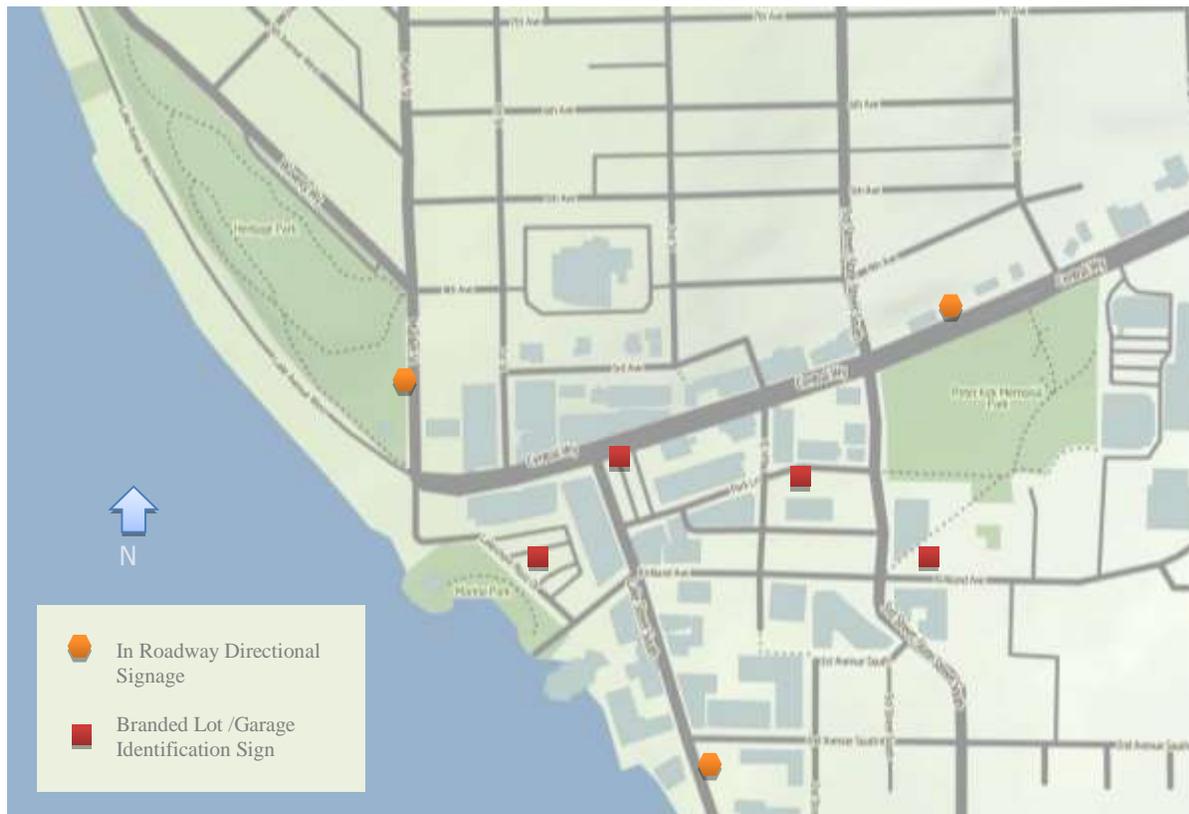
Programs that are the most successful tie into a parking “brand.” The brand is incorporated into both the on-site signage and the rights-of-way signage. This provides customers a visual cue that translates from their first encounter in the roadway to being able to conveniently identify a parking location. For instance, Portland, OR (SmartPark), Vancouver, BC (EasyPark) and Seattle, WA (e-Park) have rolled out this type of branding link.

Figure A illustrates where on-site and in-roadway signage could be placed in the downtown to coordinate and consistently communicate parking opportunities to users. The layout envisions three (3) in roadway signs and four (4) on site signs. It is estimated that these signs would fall in the range of \$130,000 (i.e., \$90,000 for in roadway signs and \$40,000 for on-site signage).

Applicability to Kirkland

- *As Kirkland moves forward with efforts to create and implement a coordinated brand strategy for its customer/visitor parking system, consider incorporating dynamic signage/guidance systems into the overall strategy, implemented as appropriate to time and budget.*
- *Create a consistent visual standard “package” for facility entry areas that represents the Kirkland parking brand. This standard should then be applied to each parking facility.*

Figure A
Potential Lay Out of Coordinated Downtown Parking Signage Package



F. Parking Applications (“apps”)

Another major “smart parking” innovation is the increase in public and private sector applications intended to make more parking data available to the parking public and offer new services to parkers.

Made possible by the tremendous increase in smartphone usage (originally the iPhone and now Android-based phones) and more recently the iPad and similar devices, all of which incorporate GPS capability, these applications can gather information about a parker’s whereabouts while also offering differing levels of information about the environment in which the vehicle is located or to which it is heading.



One of the key questions for the industry going forward is the extent to which on-street data provided by intelligent meters and sensors will be made available to parking application vendors. Vendors currently earn fees by selling their applications at nominal rates and/or from advertising on their sites. Some, such as Parking In Motion, are perhaps being paid fees when users reserve parking at off-street lots. It is in the interests of cities and the vendors to have as much information publicly available as possible, but it is unclear to what extent cities will seek to

recoup their capital cost by selling such information, and whether the customer base will pay enhanced fees for applications offering real-time data.

Applicability to Kirkland

- **PHASE 2:** A parking “app” linking information on real-time availability of parking in City parking assets should be explored for the off-street system if investments are made in in-lane lot/garage counter systems as described in B above.

PHASE 3: Strategies to explore now and consider for near term implementation (3+ years)

G. Wireless Sensors

Applicability to Kirkland

- **PHASE 3:** Barring a system of paid on-street parking, it is doubtful that full scale use of in-ground sensors would be feasible for Kirkland given the cost to install and maintain such a system. Current applications (in paid environments) are having difficulty demonstrating cost recovery for such systems. At approximately 350 current on-street spaces, such a system would be in the range of \$52,500 - \$115,000 to install. Additional annual costs to maintain, operate and communicate the systems would also accrue to the City.
- **PHASE 3:** An overhead sensor system is likely too expensive for use at the Library Garage, though such a system could create access and circulation efficiencies for users of the facility. At 339 structured spaces, such a system would be in the range of \$170,000 - \$376,000 to install.

H. Pay-by-Phone

Pay-by-phone as a parking payment option is just as it sounds – once motorists park their vehicles, they call a phone number usually located on a sign or the parking meter, enter their space or license plate number, and then hang up. Smartphones can link to an app that doesn’t require a phone call. An initial, one-time setup to link a credit card number with a phone number is required. The system then uses caller ID to match the user with the account. This technology has great potential for making parking easier and providing a significant number of customer benefits in both on- and off-street parking formats. Market data shows an increasing interest in the availability of this type of technology by the growing base of younger and more “tech savvy” visitor/shopper. Several cities are piloting pay-by-phone systems, including Seattle and Vancouver, WA, San Francisco, CA, Pittsburg, PA, Coral Gables, Miami and Fort Lauderdale, FL, New Castle, NY and Washington, D.C. (to name a few).



Signage and communications systems would need to be implemented or augmented to ensure that customers are aware that the pay-by-phone is an option, as well as to establish start-up accounts. Additional equipment for enforcement personnel would also need to be evaluated.



Recent research conducted by CDM Smith Consultants in San Francisco indicates that pay-by-phone programs cost between \$25 - \$50 per associated stall to set up, with annual support costs of \$50 - \$75 per stall.¹¹

The number or percentage of customers that avail themselves of this parking option is not well established in any of the cities currently piloting such programs, but it can be assumed that it is relatively low at this time given the “newness” of the concept to on-street systems. This should change over time as these systems become more common within parking operations and within the industry. Also, there will likely be a correlation between use of the option and the level of operational support (marketing, communications, outreach) given to the technology.

Applicability to Kirkland

- *The number of areas where pay to park in Kirkland is very limited and represents a very small percentage of the total parking supply. If there were more stalls in play this could be a useful amenity for customers paying to park.*
- *Until there is a larger (critical mass) of pay to park options in downtown Kirkland, pay by phone is not at this time a viable technology for Kirkland’s publicly owned parking.*

I. Parking Applications (“apps”): On-street

Applicability to Kirkland

- **PHASE 3:** *A parking app for the on-street system is likely not feasible given the costs for providing the connection of sensors that are necessary to the “wireless link.”*

V. SUMMARY

All cities have unique customer culture, operating and management structures and goals and objectives for their public parking systems. What is consistent across cities is that making investments in newer and “smarter” parking technologies requires investment and a commitment to coordination and management that exceeds existing programs, services and resources. The considerations contained in

¹¹ Bill Hurrell, PE, Senior Vice President, Wilbur Smith Associates, *Technology and Parking*. Presentation to Metropolitan Transportation Commission on Design, Community & Environment, March 25, 2011.

this technical memorandum were structured with this in mind. We have attempted to provide a starting point for Kirkland that is both strategic and reasonable. This begins with branding and identifying the parking system itself, followed by signage, wayfinding and marketing and communications. These initial steps, if implemented, would provide a solid foundation upon which to build additional and more sophisticated technologies. We also strongly recommend that Kirkland explore a strategic and incremental expansion of pay to park technologies. This is based on the premise that existing perceptions and realities related to parking constraints in downtown Kirkland cannot be effectively solved if the singular operating principle is that all parking remain free to all users of the public parking system.

DRAFT

Market Neighborhood Feedback on Downtown Parking

This document outlines a number of concerns expressed by Market Neighborhood related to potential parking changes to downtown Kirkland. It has been prepared as a formal input into the parking study currently underway by the City. The neighborhood continues to be concerned that our streets serve as “spillover” parking for downtown, and potential City parking changes may further exacerbate this issue.

The document is organized into four areas:

- Area #1 – Specific Market neighborhood issues
- Area #2 – Overall concerns on reducing downtown parking
- Area #3 – Opportunity to re-use existing City parking
- Area #4 – Additional concerns related to downtown parking

Area #1 - Specific Market Neighborhood Issues

The Market neighborhood has a number of specific concerns about the parking burden currently being borne by the neighborhood due to inadequate downtown parking. These include:

- The Market neighborhood already hosts a number of parking-related needs for the City, including boat trailer parking, parking for Heritage Hall events, parking for Heritage Park, including the two tennis courts, and hosting numerous events including the Shamrock Run, 12Ks of Christmas, 3-day walk event, and 4th of July parade parking.
- Waverly Way in particular has a bike lane along the west side of Waverly, that is both a community asset and consistent with the City's goal of non-auto transit. We will want to maintain this.
- A Lake Ave W. resident has expressed concern that increased parking on Lake Ave W. will reduce the ability for fire trucks to turn around and get on to the next call, an issue that presents a safety risk to the larger community.

Area #2 - Overall Concerns on Reducing Downtown Parking

We are concerned about a plan that reduces parking downtown and encourages it in adjoining neighborhoods. There appear to be multiple initiatives underway that reduce downtown parking:

- Reduction in parking spots for Park Lane
- Potential reduction in parking requirements for multi-unit development
- Constraints on employee parking downtown that leads to overflow to surrounding areas (if library not available or desirable).

Area #3 - Opportunity to re-using existing City parking

We have counted at least 26 spots reserved for KPD at City Hall. Since KPD has moved to their new location except for the evidence room, can the City designate these spots as public parking with same rules as downtown parking, 3 hours free parking? This would have an immediate impact and show residents and businesses that the city is addressing the parking issue now.

- How many parking spots could be made available at City Hall?
- How many parking spots could be made available at the Annex location?

Area #4 - Additional Concerns Related to Downtown Parking

In addition the issues raised above, two other parking related issues will need to be considered when determining any changes to downtown parking.

- It appears the City intends to move ahead with changes to the Multi-Family Parking Requirements to limit the number of spots required for such properties. Protections may need to be put in place to ensure this does not create spill over into the neighborhoods surrounding downtown, including Market neighborhood. Do we need "Zone" parking for the surrounding neighborhoods? Do we need time-restrictions for those without zone placards? There are likely many other viable options, but the primary point is that Market Neighborhood doesn't want to "hope" that the surrounding neighborhoods are not impacted. Rather, we want to be planful about the change, and have appropriate protections in place so that the neighborhoods don't become spillover parking lots.
- As the City has likely seen, Juanita Village is receiving negative publicity due to parking shortages, causing challenges for employees and the general public. <http://www.kirklandreporter.com/news/273064951.html>. For the Central Business District (CBD), we would be concerned about parking constraints that led employees to park in the surrounding neighborhoods (which don't currently have any time restrictions), in order to be able to come to work and do their jobs.