Parking Management Plan Costs and Revenues

Implementing the above parking strategies would require purchasing parking meters and enforcement equipment as well as the cost of enforcement, maintenance, collections, and administrative support. Potential costs and revenues for this program were estimated using a proforma model based on the recommendations, observed parking demand, and expected costs. The results of this analysis are summarized in this section.

The financial analysis applies the meter and permit parking prices recommended above to the observed parking demand to estimate parking revenues, and estimates labor, capital, and operational costs to estimate a net income for the program. The analysis assumes that the first phase, North Hollis, will be implemented in 2019, and the second phase will be implemented in 2020. From these estimates an annual net income was estimated for the first ten years of the program.

The revenue analysis conservatively assumes that parking will be used, on average, at approximately the same occupancy rates as was observed for on-street spaces in the existing conditions analysis. In the revenue model, existing demand for short-term, mid-term, and long-term spaces from the parking occupancy data is used. Average parking demand was calculated as the total number of occupied hours from 9 AM to 5 PM divided by the revenue hours (the total number of spaces multiplied by eight hours). Short-term occupancy was adjusted down approximately 30%, and long-term parking was increased by an equivalent amount, to conservatively reflect an expected shift toward lower-cost pricing. The analysis also includes a ten percent decrease in demand during the first year as drivers take fewer trips or other modes in response to the new parking pricing and technology. After the first year, demand for parking is expected to increase due to increased space availability, and the occupancy is assumed to stay constant at the existing observed rates. The assumed occupancy rates by space location and phase are shown in **Table 3.4**.

Table 3.4 Assumed Daily Average Occupancy Rates

	Short Term	Mid Term	Long Term	Citywide Average
Phase 1 spaces with 10% year-1 decrease	43%	N/A	67%	61%
Phase 2 spaces (citywide)	45%	77%	72%	66%

These occupancies are multiplied by the hourly parking rates described in the recommendations above, assuming all vehicles in short- and mid-term parking spaces stay for the recommended time limit, two and four hours respectively, to avoid paying the higher rate. Meter rates are also assumed to stay constant for the analysis period, and the number of metered spaces is assumed to decrease at a rate of 2.5% per year to account for changes in curb use such as drop off zones, bus lanes, parklets, etc. Both of these assumptions result in a conservative revenue estimate, as no revenue is assumed to be garnered from those overstaying at meters and the revenue is expected to decrease with the assumed loss of metered spaces.

Labor costs for administering and enforcing the program, summarized in **Table 3.5** below, were estimated using salaries obtained from the City and approximate full-time equivalent (FTE) hours based on the level of administration and enforcement required for each phase. The annual hours and total costs shown are for all positions within each department, including overhead and benefit costs. Contractors for meter maintenance and collection were assumed instead of in-house collections, with a high-end annual contracting cost included for a conservative estimate. The annual hours and full-time equivalents for each position are detailed in *Appendix F*. Labor costs are assumed to escalate at a rate of 5% per year.

Table 3.5 Labor Cost Summary

	Phase 1 - North Hollis		Phase 2 - Citywide	
Labor Category	**Total FTE**	**Annual Cost**	**Total FTE**	**Annual Cost**
Operations and Maintenance (Contract)				
Maintenance Contractor	-	$100,000.00	-	$200,000.00
Collections Contractor	-	$100,000.00	-	$200,000.00
Administration and Enforcement				
Finance	0.075	$16,791.67	0.125	$25,560.84
Public Works	0.075	$20,517.47	0.125	$32,114.25
Police	3	$703,929.15	5	$1,060,165.65
Policy and Planning*	0.075	$18,502.52	0.125	$29,873.96
Total Labor and Operations		**$959,741**		**$1,547,715**

*Policy and planning staff needs assumed to end after the second year of phase 2.

Capital costs for both phases include purchasing a total of 2,730 parking meter heads, four license plate-recognition (LPR) enabled vehicles, handheld enforcement units, and signage. In total, capital costs for phase 1 are estimated to be approximately $1.14 million and for phase 2 are estimated to be $1.94 million. The capital costs are detailed in **Table 3.6**. These capital costs are annualized for the cost and revenue comparison assuming a full replacement after 10 years. Additional software and contracting costs for mobile payment, permit management, and system integration are also included in the proforma analysis. Parking citation revenues and associated court and processing costs are excluded from the model.

Table 3.6 Capital Cost Details

	Phase 1		Phase 2	
	Number	**Total Cost**	**Number**	**Total Cost**
Meters	949	$968,000	1757	$1,826,000
LPR Vehicle	2	$73,000	2	$75,000
Handheld Units	2	$3,100	2	$3,100
Signs	198	$24,000	283	$35,000
Software setup cost (one-time)	-	$75,000	-	-
Total		**$1,144,000**		**$1,941,000**

*Phase 2 per-unit costs differ from phase 1 due to inflation. The number of spaces has also been decreased 2.5% between phase 1 and phase 2.

The estimated revenues and costs are summarized in **Table 3.7**. During the first phase in 2019, costs are slightly higher than revenues, but for the first six years of phase 2, the project is expected to make money. After 2025, due to the assumed inflation rates and gradual loss of parking spaces, revenues would decrease below the costs. Increased meter rates could be considered to cover the cost increases.

Table 3.7 Parking Management Plan 10-year Cost and Revenue Projection

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues											
Short term meters	$466,000	$855,000	$834,000	$813,000	$793,000	$773,000	$754,000	$735,000	$716,000	$699,000	$681,000
Mid term meters	$0	$641,000	$625,000	$609,000	$594,000	$579,000	$565,000	$551,000	$537,000	$524,000	$511,000
Long term meters	$456,000	$991,000	$966,000	$942,000	$918,000	$895,000	$873,000	$851,000	$830,000	$809,000	$789,000
Permit income	$77,000	$229,000	$229,000	$229,000	$229,000	$229,000	$229,000	$229,000	$229,000	$229,000	$229,000
Total Revenues	***$999,000***	***$2,716,000***	***$2,654,000***	***$2,593,000***	***$2,534,000***	***$2,476,000***	***$2,421,000***	***$2,366,000***	***$2,312,000***	***$2,261,000***	***$2,210,000***
Expenses											
Capital costs	$105,000	$300,000	$299,000	$297,000	$296,000	$295,000	$294,000	$293,000	$292,000	$291,000	$290,000
Labor	$798,000	$1,265,000	$1,329,000	$1,359,000	$1,427,000	$1,498,000	$1,573,000	$1,652,000	$1,734,000	$1,821,000	$1,912,000
Contractors and Software	$222,000	$454,000	$454,000	$454,000	$454,000	$454,000	$453,000	$453,000	$453,000	$453,000	$453,000
Total Expenses	***$1,125,000***	***$2,019,000***	***$2,082,000***	***$2,110,000***	***$2,177,000***	***$2,247,000***	***$2,320,000***	***$2,398,000***	***$2,479,000***	***$2,565,000***	***$2,655,000***
Annual Net Income	**($126,000)**	**$697,000**	**$572,000**	**$483,000**	**$357,000**	**$229,000**	**$101,000**	**($32,000)**	**($167,000)**	**($304,000)**	**($445,000)**
Internal borrowing from other funds	$126,000	($126,000)	-	-	-	-	-	-	-	-	-
Balance	***$0***	***$571,000***	***$1,143,000***	***$1,626,000***	***$1,983,000***	***$2,212,000***	***$2,313,000***	***$2,281,000***	***$2,114,000***	***$1,810,000***	***$1,365,000***