

APPENDIX C
BROOKLYN BRIDGE PARK DEVELOPMENT ANALYSIS

Brooklyn Bridge Park Development Analysis

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Brooklyn Bridge Park Development Analysis

Assumptions and Net Present Value Summary⁽¹⁾

Con Ed

Assumptions

Number of residential floors	13
Gross Sq Ft Per Floor	9,600
Gross Sq Ft	124,800
Revenue \$ Per Sq Ft	\$ 700
Land Value Per Sq Ft	\$ 70
Annual Ground Rent Per Sq Ft	\$ 3.50

<u>PV of Revenue</u>	<u>\$ 20,025,000</u>
<u>PV of Revenue Per Sq Ft</u>	<u>\$ 160</u>

Pier 6 - High-Rise and Mid-Rise

Assumptions

Number of residential floors	38
Gross Sq Ft	429,450
Revenue \$ Per Sq Ft	\$ 725
Land Value Per Sq Ft	\$ 70
Annual Ground Rent Per Sq Ft	\$ 3.50

<u>PV of Revenue</u>	<u>\$ 69,330,000</u>
<u>PV of Revenue Per Sq Ft</u>	<u>\$ 161</u>

Pier 1

Assumptions

Number of residential units	150
Gross Sq Ft	150,000
Revenue \$ Per Sq Ft	\$ 750
Land Value Per Sq Ft	\$ 75
Annual Ground Rent Per Sq Ft	\$ 5.75

<u>PV of Revenue</u>	<u>\$ 20,911,000</u>
<u>PV of Revenue Per Sq Ft</u>	<u>\$ 139</u>

Hotel

Assumptions⁽¹⁾

Number of hotel rooms	224
Gross Sq Ft	175,000

<u>PV of Revenue</u>	<u>\$ 26,725,000</u>
<u>PV of Revenue Per Sq Ft</u>	<u>\$ 153</u>

Revenues from MOUs Currently Under Negotiation

<u>PV of Revenue</u>	<u>\$ 73,907,000</u>
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Total	\$ 210,898,000
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⁽¹⁾ 20-year Net Present Value using 7% discount rate.

⁽²⁾ See hotel pro-forma for additional hotel assumptions.

Brooklyn Bridge Park Development Analysis **Net Present Value Summary**

Present Value of Revenue by property - 20 years, 7% Discount Rate	
Con Ed - Upfront payment for land	8,742,000
Con Ed - One-time taxes and fees	3,190,000
Con Ed - Recurring Revenues	8,093,000
Pier 6 Total - Upfront payment for land	30,083,000
Pier 6 Total - One-time taxes and fees	11,399,000
Pier 6 Total- Recurring Revenues	27,848,000
Pier 1 - Upfront payment for land	8,583,000
Pier 1 - One-time taxes and fees	3,128,000
Pier 1 - Recurring Revenues	9,200,000
Hotel - Upfront payment for land	-
Hotel - One-time taxes and fees	3,501,000
Hotel - Recurring Revenues	23,225,000
MOUs Currently Under Negotiation - One-time taxes & fees	6,285,000
MOUs Currently Under Negotiation - Recurring Revenues	67,621,000
Total Value	210,898,000

Present Value of Park Maintenance Budget	(\$196,228,000)
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Brooklyn Bridge Park Development Analysis

Cash Flow Summary (\$ millions)

	Year 1	Year 5	Year 10	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Endowment at beginning of year	\$0.0	\$58.3	\$77.7	\$54.2	\$24.1	\$21.4	\$19.1	\$17.7	\$17.8
Revenues									
Recurring Fees									
Park Maintenance Fees	3.2	7.1	8.1	10.1	10.3	10.5	11.1	11.3	11.5
Payments in Lieu of Taxes (PILOT)	1.8	3.9	4.1	11.0	12.2	13.8	15.5	16.3	17.3
Total Recurring Fees	5.0	11.0	12.3	21.1	22.5	24.3	26.7	27.6	28.8
Non-Recurring Fees									
Up-front payments for land	38.8	-	-	-	-	-	-	-	-
One-time taxes and fees	19.5	-	-	-	-	-	-	-	-
Total Non-Recurring Fees	58.3	-	-	-	-	-	-	-	-
Return on Investment	1.5	3.8	2.9	1.3	1.1	1.0	0.9	0.9	0.9
Total Revenues	8.8	14.8	15.2	22.4	23.6	25.3	27.6	28.5	29.7
Expenses									
Park Maintenance Budget	(4.8)	(18.7)	(21.7)	(25.1)	(25.9)	(26.7)	(27.5)	(28.3)	(29.1)
Annual surplus/deficit	58.3	4.0	(3.9)	(6.5)	(2.3)	(1.4)	0.1	0.2	0.6
Endowment at end of year	\$58.3	\$62.3	\$73.8	\$47.7	\$21.4	\$19.1	\$17.7	\$17.8	\$18.6

Note: Some numbers may not add due to rounding.

The endowment is at its lowest point in Year 17 after which recurring fees are sufficient to sustain park maintenance and operations.

Components of Park Revenue:

Non-recurring revenues:

Upfront payment for land

Construction PILOT: Estimated at 8% of 50% of hard costs

Mortgage Recording Tax: 2.75% of Senior debt.

Recurring Revenues:

PILOT: Standard calculation with 421-a abatement on new development

Park Maintenance fees: \$3.50-\$5.75 per gross square foot.

MOUs currently under negotiation:

Empire Stores and 360 Furman renovation currently under negotiation.

Brooklyn Bridge Park Development Analysis

Overview - Value of Land with Ground Rent

Assumptions

Project Overview ⁽¹⁾				
	Gross SF	Saleable SF	Hard Cost PGSF	Base Case Price PSSF
Pier 6	429,450	365,033	\$313	\$725 (Wtd. Average)
Con Ed	124,800	106,080	\$292	\$700
Pier 1	150,000	127,500	\$291	\$750
Total/Wtd. Average	704,250	598,613		\$726

Project Timing	
Construction Duration	2 years
Sales Assumptions (% of Units)	
Year 2	20.0%
Year 3	70.0%
Year 4	10.0%

Financing Assumptions	
Equity	20.0%
Debt	80.0%
Interest Rate	6.5%

⁽¹⁾ For Pier 1 hotel overview, see hotel pro-forma.

Ground Rent Analysis

Assuming a 7% discount rate and annualized rent increases of 3% that occur in Year 15 and every 10 years thereafter, \$1 in ground rent is worth ~\$20.00 today. In order to compensate for park maintenance fees, sales prices are assumed to be \$50 less than market.

Pier 6

Implied Land Value Per Gross Square Foot - Sensitivity Analysis						
Total Upfront Pmt	Upfront Price PGSF	Ground Rent Per Gross Square Foot				
		\$6.50	\$5.50	\$4.50	\$3.50	\$2.50
\$4,251,555	\$9.90	\$150	\$129	\$107	\$86	\$64
\$12,862,028	\$29.95	\$170	\$149	\$127	\$106	\$84
\$21,472,500	\$50.00	\$191	\$169	\$147	\$126	\$104
\$30,082,973	\$70.05	\$211	\$189	\$167	\$146	\$124
\$38,693,445	\$90.10	\$231	\$209	\$187	\$166	\$144

Developer Levered IRR - Sensitivity Analysis						
Total Upfront Pmt	Upfront Price PGSF	Sales Price per Square Foot				
		\$525.00	\$575.00	\$625.00	\$675.00	\$725.00
\$4,251,555	\$9.90	4%	21%	36%	49%	62%
\$12,862,028	\$29.95	-5%	11%	26%	40%	53%
\$21,472,500	\$50.00	-15%	2%	17%	31%	44%
\$30,082,973	\$70.05	NA	-7%	9%	23%	35%
\$38,693,445	\$90.10	NA	-15%	0%	14%	27%

Brooklyn Bridge Park Development Analysis

Overview - Value of Land with Ground Rent

Con Ed

Implied Land Value Per Gross Square Foot - Sensitivity Analysis						
Total Upfront Pmt	Upfront Price PGSF	Ground Rent Per Gross Square Foot				
		\$6.50	\$5.50	\$4.50	\$3.50	\$2.50
\$1,235,520	\$9.90	\$150	\$129	\$107	\$86	\$64
\$3,737,760	\$29.95	\$170	\$149	\$127	\$106	\$84
\$6,240,000	\$50.00	\$191	\$169	\$147	\$126	\$104
\$8,742,240	\$70.05	\$211	\$189	\$167	\$146	\$124
\$11,244,480	\$90.10	\$231	\$209	\$187	\$166	\$144

Developer Levered IRR - Sensitivity Analysis						
Total Upfront Pmt	Upfront Price PGSF	Sales Price per Square Foot				
		\$500.00	\$550.00	\$600.00	\$650.00	\$700.00
\$1,235,520	\$9.90	4%	21%	37%	51%	64%
\$3,737,760	\$29.95	-6%	11%	27%	41%	54%
\$6,240,000	\$50.00	-16%	2%	18%	32%	45%
\$8,742,240	\$70.05	NA	-7%	9%	23%	36%
\$11,244,480	\$90.10	NA	-16%	0%	15%	28%

Pier 1

Implied Land Value Per Gross Square Foot - Sensitivity Analysis						
Total Upfront Pmt	Upfront Price PGSF	Ground Rent Per Gross Square Foot				
		\$7.75	\$6.75	\$5.75	\$4.75	\$3.75
\$5,235,000	\$34.90	\$202	\$181	\$159	\$138	\$116
\$8,242,500	\$54.95	\$223	\$201	\$179	\$158	\$136
\$11,250,000	\$75.00	\$243	\$221	\$199	\$178	\$156
\$14,257,500	\$95.05	\$263	\$241	\$219	\$198	\$176
\$17,265,000	\$115.10	\$283	\$261	\$239	\$218	\$196

Developer Levered IRR - Sensitivity Analysis						
Total Upfront Pmt	Upfront Price PGSF	Sales Price per Square Foot				
		\$550.00	\$600.00	\$650.00	\$700.00	\$750.00
\$5,235,000	\$34.90	11%	27%	41%	54%	66%
\$8,242,500	\$54.95	1%	17%	32%	45%	57%
\$11,250,000	\$75.00	NA	8%	23%	36%	48%
\$14,257,500	\$95.05	NA	0%	14%	28%	40%
\$17,265,000	\$115.10	NA	NA	6%	20%	32%

Summary

Assuming the developer's required return is between 20-25%, and that every ~\$3.00 of park maintenance fees reduces sales price by \$50 PSF, the value of land over the course of the 99 year ground leases is as follows:

	Upfront Price PGSF	Rent PGSF	Value of Land	
			PGSF	Total
Pier 6	\$70.05	\$3.50	\$146	\$62,582,471
Con Ed	\$70.05	\$3.50	\$146	18,186,733
Pier 1	\$75.00	\$5.75	\$199	29,898,981
Total Implied Value				\$110,668,186

Note on Assumptions in the Revenue Analysis

- The market assumptions in the revenue analysis are based on market conditions in 2004 and informed the setting of a maximum envelope for development. The actual development will emerge as a result of a competitive developer selection process, and therefore development may be smaller if market conditions permit because the value of land and other factors may well be different from those assumed in this analysis.
- The revenue analysis assumes that parking spaces within the development program will be built and operated at a break-even rate.
- Build years for buildings are as follows: construction period of 2 years commencing in 2007 for Pier 6 and Con Ed developments, and construction period of 2 years commencing in 2010 for Pier 1 development.

The analysis presented has been modified from the analysis that was the basis of the Draft Environmental Impact Statement in the following ways:

- As-of-right tax abatements under ICIP program applied to the hotel planned for Pier 1.
- Upfront payment for land for Pier 1 residential development discounted to reflect expectation that Pier 1 developer selection process may take place later than for other development components.

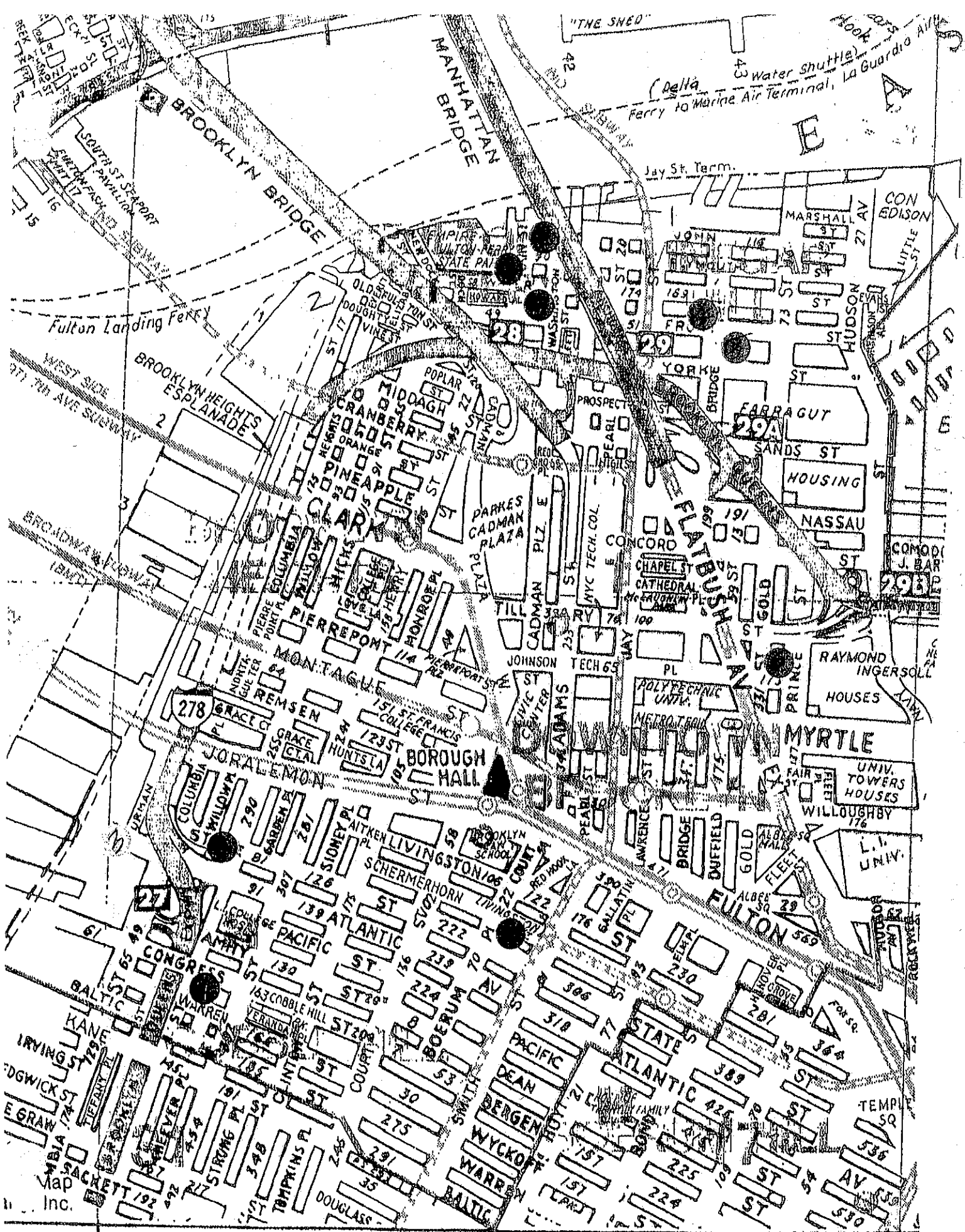
Market Information:

Brooklyn Waterfront

Prepared for

Susan Fine

November 9, 2004



Executive Summary

Joseph A. Tuana Associates, Inc. has collected condominium sales data from the year past for Dumbo, Brooklyn Heights and Cobble Hill. The objective of this survey is to determine likely sales price ranges on a per square foot basis for the residential sites within the proposed Brooklyn waterfront redevelopment area.

For this analysis we focused on the each subject's immediate marketing area and selected nine (9) condominium buildings which are deemed suitable for comparison to the subject sites. Currently there is a shortage of condominium inventory in many market segments and bidding-wars are frequent. Where possible this analysis gives greatest weight to the most current sales data.

Dumbo: The proposed subject is a 15-story building located on John Street between Adams and Pearl Streets at the northern edge of Dumbo. Only 4 blocks from the F train, the site will offer direct water and Manhattan views. The blended average range for view and non-view apartments is \$650-750 per square foot.

Old Fulton Street: The proposed subject is a low-rise building adjacent to a proposed hotel at the intersection of Furman and Doughty Streets. The subject's proximity to the River Café Barge Music and the Brooklyn Bridge, and the relationship to the proposed restaurant, will lend a festival atmosphere. The blended average range for view and non-view apartments is \$700-800 per square foot. It is recommended that the condominium units be placed over the hotel to improve views to the North and West particularly. The optimal arrangement would include condominium units on the upper 6 to 8 floors of the mid-rise building and would relocate the hotel portion to the lower building to the south. This modification to the plan would decrease absorption time and would generate an additional \$50 per square foot or more for the blended average. The current configuration offers no views to the north or east.

Atlantic Avenue: The proposed subject's massing has yet to be configured but will be directly south of 360 Furman Street at the terminus of Atlantic Avenue. From a strictly marketing point of view it is preferable to have one large tower located as far west on the site as possible rather than two different buildings at opposite corners of the site. Also the operating and staffing costs would be less with a single building, though the construction costs would higher. The blended average range for view and non-view apartments is \$625-725 per square foot for the mid-rise configuration and \$675-775 in the high-rise configuration.

Assumptions used for pricing include amenities which are associated with luxury apartment buildings. These include: Full Time Doorman, Health Club, Roof Deck, Business Center, Children's Playroom, Cinema Room & Valet Parking. Apartments would feature parquet flooring, granite kitchens, ceramic tile baths, central heating and cooling systems. Ceiling heights at a minimum would be approximately 9 feet. Glass area would be maximized.

Joseph A. Tuana Associates, Inc.

Brooklyn Waterfront Developments: Estimates Based on Current Market Comps
11-8-04

\$ per SF	Blended	View	Non-View
Dumbo	650 - 750	700-800	600-700
Old Fulton	700-800	750-850	650-750
Atlantic Avenue			
Mid-rise	625-725	675-775	600-650
High-rise	675-775	725-825	600-700

All \$ per SF figures are based on minimal taxes (Pilots), for years 1-10.
Common Charges not to exceed \$8.00 per square foot.

The higher the Pilots the lower the sales prices and the absorption period will be prolonged.

Assumptions:

- Cond-Op structure with no underlying mortgage
- Park adjacent to residential developments will be complete at the same time as closings take place on the first units.
- Atlantic Avenue sales prices assume that 360 Furman has been sold out and attendant retail functions are established that would service subject site.
- Old Fulton assumes low-rise.
- Hotel services would not be included.
- All projects assume that parking would be available.

Brooklyn Bridge Park Residential Development Analysis

Assumptions - Pier 6

Drawdown Scenario - Equity Upfront

Square Foot Breakdown and Schedules									
	Gross	Saleable	Loss Factor	Units	Sq Ft/Unit	Revenue \$/Sq Ft	Revenue \$/Unit	Gross Revenue	
Condos - High-rise	429,450	365,033	15.0%	430	849	\$725	\$615,462	\$264,648,563	
Condos - Mid-rise	300,000	255,000	15.0%	290	879	\$738	\$648,491	\$188,062,500	
Condos - Low-rise	129,450	110,033	15.0%	140	786	\$688	\$540,338	\$75,647,344	
Total	429,450	365,033	15.0%					\$528,358,407	

Sources									
	Total	Per GSF	Per RSF	Per RSF	Total	Per GSF	Per RSF	Per RSF	
Debt									
Senior Debt	\$161,165,457	\$375	\$442	77.5%	\$32,938,815	\$77	\$90	\$90	
Equity									
Total Equity	\$46,899,148	\$109	\$128	22.5%	\$134,526,167	\$313	\$369	\$369	
Total Sources:	\$208,064,605	\$484	\$570	100.0%	\$208,064,605	\$484	\$570	\$570	

Breakdown Analysis									
	Per GSF	Per RSF	Per RSF	Total	Per GSF	Per RSF	Per RSF	Per RSF	
Construction Loan	\$575	\$422	\$422						
Construction Loan & Equity	\$484	\$570	\$570						
Construction Loan, Equity & Implied Land Value	\$554	\$651	\$651						

Lease Assumptions									
	Date	Payment	Type	Total	Per GSF	Per RSF	Per RSF	Per RSF	
Upfront Price per SF	Year 1	\$70	One-Time	\$1,503,075	\$350	\$412	\$412	\$412	
Lump Sum Payment		\$30,082,973		\$62,582,471	\$145.73	\$171.44	\$171.44	\$171.44	
Land Valuation									
Annual Ground Rent									
Implied Land Value									
NPV Assumptions									
Discount Rate		7.0%							
Rent Escalations		3.0%	15th year, ever 10 thereafter						

Debt Assumptions									
Senior Debt									
Construction Loan									
LTC									
Amount									\$161,165,457
Fixed Interest Rate?									Yes
Total Fixed Interest Rate									6.50%
Drawdown Schedule									Equity Upfront
Origination Fee									1.00%
Mortgage Recording Tax									2.75%

Condominium Assumptions									
Hard Costs (PGSF)									\$313
Operating Exp. (PRSSF)									\$700
Brokerage									4.00%
Per Unit Closing Costs									\$500
Sales Assumptions									
Year 2									20.0%
Year 3									70.0%
Year 4									10.0%
Total									100.0%

Development Assumptions									
Developer Fee (% of Hard/Soft Costs)									3.0%
General Conditions (% of Hard Costs)									10.0%
CM Contingency (% of Hard & Fees)									5.0%
Owners Contingency (% of Hard & Fees)									0.0%
Soft Cost Contingency (% of Soft Costs)									20.0%

Tax Assumptions									
PLOT (Pier 6 Land)									\$429,450
PLOT (rest ex. Land)									\$700
Abatement - first 11 years									100.0%
Abatement - 12th year									80.0%
Abatement - 13th year									60.0%
Abatement - 14th year									40.0%
Abatement - 15th year									20.0%
Thereafter									0.0%
Escalation									1.5%

Brooklyn Bridge Park Residential Development Analysis

Cash Flow Summary - Pier 6

Drawdown Scenario - Equity Upfront

Developer Unlevered Cashflow

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	TOTALS
Revenues																
Condo Sales	0	52,929,713	185,255,994	26,464,856	0	0	0	0	0	0	0	0	0	0	0	\$264,648,563
Percent Absorbed		20%	70%	10%												100.0%
Number Units Absorbed		86	301	43												\$430
Expenses																
Sales Commission	0	(2,117,189)	(7,410,160)	(1,058,594)	0	0	0	0	0	0	0	0	0	0	0	(10,583,943)
Condo Closing Costs	0	(45,000)	(150,500)	(21,500)	0	0	0	0	0	0	0	0	0	0	0	(215,000)
Net Revenue	\$0	\$50,769,524	\$177,695,334	\$25,384,762	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$253,847,620
Expenses																
Ground Rent Paid by Developer	31,586,048	1,202,460	150,308	0	0	0	0	0	0	0	0	0	0	0	0	\$32,938,815
Insurance and Taxes	3,677,357	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,677,357
Permits & Fees	309,639	0	0	0	0	0	0	0	0	0	0	0	0	0	0	309,639
Legal	775,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	775,000
Consultants/Soft Costs	6,484,778	3,193,995	0	0	0	0	0	0	0	0	0	0	0	0	0	9,678,773
Hard Costs	90,132,532	44,593,635	0	0	0	0	0	0	0	0	0	0	0	0	0	134,726,167
Soft Cost Contingency	1,296,956	638,799	0	0	0	0	0	0	0	0	0	0	0	0	0	1,935,755
Marketing & Sales - Indirect	1,343,143	662,534	0	0	0	0	0	0	0	0	0	0	0	0	0	2,005,677
Community Relations	230,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230,000
Op. Expenses During Construction/Sell-Out	0	2,044,182	255,523	0	0	0	0	0	0	0	0	0	0	0	0	2,299,705
Net Cash Flow Unlevered	(\$135,857,454)	(\$1,366,081)	\$177,287,504	\$25,384,762	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$65,448,730

Developer Levered Cashflow

Leverage Expenses																
Financing Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Costs	(\$135,857,454)	(\$52,135,605)	(\$405,830)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$188,398,890)
Debt Balances																
Beginning of Period Balance	\$0	(\$95,691,090)	(\$103,277,092)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$148,232,525)
Senior Debt Funding	0	(\$2,135,605)	(405,830)	0	0	0	0	0	0	0	0	0	0	0	0	(2,541,435)
Interest	0	(6,219,921)	(6,713,011)	0	0	0	0	0	0	0	0	0	0	0	0	(12,932,932)
Debt Repayment	0	\$0,769,524	110,395,923	0	0	0	0	0	0	0	0	0	0	0	0	161,165,457
End of Period Balance	\$0	(\$95,691,090)	(\$103,277,092)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
Equity Contributions																
Equity Contributions	\$0	(46,899,148)	0	0	0	0	0	0	0	0	0	0	0	0	0	(\$46,899,148)
Net Cash Flow Levered	\$0	(\$46,899,148)	\$0	\$25,384,762	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$45,783,015

Draw Schedule - Pier 6

[illegible]

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Pier 6

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
7	Soft Cost Contingency	20%	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755	1,935,755
8	Construction Interest	6.3%	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932	12,932,932
9	Marketing & Sales - Indirect															
	Marketing Brochures & Advertising	\$4.50	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033
	Sales Office - Fitting Out Space	\$0.25	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033
	Model Apartments	\$0.75	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033	365,033
10	Marketing & Sales - Direct															
	Sales Commissions	4.0%	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943	10,585,943
	Closing Legal Expenses	\$500	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000	215,000
11	Financing Costs															
	Trial & Recording	0.35%	564,079	564,079	564,079	564,079	564,079	564,079	564,079	564,079	564,079	564,079	564,079	564,079	564,079	564,079
	Appraisal/Market Study		100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
	NET	2.75%	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050	4,432,050
	Lender Application Fee		25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
	Lender Commitment Fee	1.05%	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655	1,611,655
12	Community Relations		6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784	6,732,784
13	Op. Expenses During Construction/Sell-Out	57.0	\$2,555,228	2,239,705	2,299,705	2,299,705	2,299,705	2,299,705	2,299,705	2,299,705	2,299,705	2,299,705	2,299,705	2,299,705	2,299,705	2,299,705
	Operating Expenses															
	Total Expenses		218,865,548	142,590,238	60,515,715	14,679,591	14,679,591	14,679,591	14,679,591	14,679,591	14,679,591	14,679,591	14,679,591	14,679,591	14,679,591	14,679,591
	Total Expenses (Excluding Direct Sales & Marketing)		208,064,605	132,590,238	58,585,526	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841
	Condo		264,648,563													
	% Sold		0.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
	Units Sold		0	86	86	86	86	86	86	86	86	86	86	86	86	86
	Total Sales		0	52,929,713	185,253,994	26,464,856	26,464,856	26,464,856	26,464,856	26,464,856	26,464,856	26,464,856	26,464,856	26,464,856	26,464,856	26,464,856
	Sales Commissions		0	(2,117,189)	(7,410,160)	(1,058,594)	(1,058,594)	(1,058,594)	(1,058,594)	(1,058,594)	(1,058,594)	(1,058,594)	(1,058,594)	(1,058,594)	(1,058,594)	(1,058,594)
	Closing Legal Expenses		0	(43,000)	(150,500)	(21,500)	(21,500)	(21,500)	(21,500)	(21,500)	(21,500)	(21,500)	(21,500)	(21,500)	(21,500)	(21,500)
	Net Sales		0	50,769,524	177,693,334	25,384,762	25,384,762	25,384,762	25,384,762	25,384,762	25,384,762	25,384,762	25,384,762	25,384,762	25,384,762	25,384,762
	Current Scenario - Equity Funding of Project Cost before Debt Draw															
	Debt Borrowing		95,691,090	58,555,526	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841
	Equity Funding		46,899,148													
	Total		142,590,238	58,555,526	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841
	Cumulative		142,590,238	200,945,764	208,064,605	208,064,605	208,064,605	208,064,605	208,064,605	208,064,605	208,064,605	208,064,605	208,064,605	208,064,605	208,064,605	208,064,605
	Debt Beg. Balance		95,691,090	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092	103,277,092
	Debt Borrowing		95,691,090	58,555,526	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841	7,118,841
	Debt Paydown															
	Debt Ending Balance			(50,769,524)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)	(110,395,933)
	Average Balance		95,691,090	103,277,092												

Brooklyn Bridge Park Residential Development Analysis

Assumptions - Con Ed

Drawdown Scenario - Equity Upfront

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Square Foot Breakdown and Schedules

	Gross	Saleable/Loss Factor	Units	Sq Ft/Unit	Revenue \$/Sq Ft	Revenue \$/Unit	Gross Revenue
Condos	124,800	106,080	130	816	\$700	\$571,200	\$74,256,000
Total	124,800	106,080					\$74,256,000

Sources	Total	Per GSF	Per RSSF	Uses	Total	Per GSF	Per RSSF
Debt				Site Acquisition	\$9,572,160	\$77	\$90
Senior Debt	\$44,993,147	\$361	\$424	Hard Costs	\$36,426,845	\$292	\$343
Equity				HC Contingencies	0	-	0
Total Equity	\$13,093,006	\$105	\$123	Soft Costs	3,084,240	25	29
				SC Contingencies	616,848	5	6
				Interest Reserve	3,616,718	29	34
				Mortgage Recording Tax	1,237,312	10	12
				Origination Fee	449,931	4	4
				Title	157,476	1	1
				Sales & Marketing	583,440	5	6
				Operating Expenses	688,304	5	6
				Legal, Taxes, Insurance & Other	1,672,879	13	16
Total Sources:	\$58,086,152	\$465	\$548	Total Uses:	\$58,086,152	\$465	\$548

Breakdown Analysis	Sales	Per GSF	Per RSSF
Construction Loan	\$361	\$424	\$424
Construction Loan & Equity	\$465	\$548	\$548
Construction Loan, Equity & Implied Land Value	\$503	\$591	\$591

Lease Assumptions	Date	Payment	Type	Per GSF	Per RSSF
Upfront Price per SF	Year 1	\$70	One-Time		
Lump Sum Payment		\$8,742,240			
Land Valuation					
Annual Ground Rent		\$436,800		\$3.50	\$4.12
Implied Land Value		\$14,219,165		\$113.94	\$134.04
NPV Assumptions					
Discount Rate		7.0%			
Rent Escalations		3.0%	15th year, ever 10 thereafter		

Debt Assumptions	
Senior Debt	
Construction Loan	
LTC	80.0%
Amount	\$44,993,147
Fixed Interest Rate?	Yes
Total Fixed Interest Rate	6.50%
Drawdown Schedule	Equity Upfront
Origination Fee	1.00%
Mortgage Recording Tax	2.75%
Condominium Assumptions	
Hard Costs (PGSF)	\$292
Operating Exp. (PRSSF)	\$7.00
Brokerage	4.00%
Per Unit Closing Costs	\$500
Sales Assumptions	% of Units
Year 2	20.0%
Year 3	70.0%
Year 4	10.0%
Total	100.0%
Development Assumptions	
Developer Fee (% of Hard/Soft Costs)	3.0%
General Conditions (% of Hard Costs)	10.0%
CM Contingency (% of Hard & Fees)	5.0%
Owners Contingency (% of Hard & Fees)	0.0%
Soft Cost Contingency (% of Soft Costs)	20.0%
Tax Assumptions	
PILOT (Con Ed Land)	\$ 124,800
PILOT (gas ex. Land)	\$7.00
Abatement - first 11 years	100.0%
Abatement - 12th year	80.0%
Abatement - 13th year	60.0%
Abatement - 14th year	40.0%
Abatement - 15th year	20.0%
Thereafter	0.0%
Escalation	1.5%

Brooklyn Bridge Park Residential Development Analysis

Cash Flow Summary - Con Ed

Drawdown Scenario - Equity Upfront

Developer Unlevered Cashflow

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	TOTALS
Revenues																
Condo Sales	0	14,851,200	51,979,200	7,425,000	0	0	0	0	0	0	0	0	0	0	0	\$74,256,000
Percent Absorbed		26%	79%	10%												100.0%
Number Units Absorbed		26	91	13												130
Expenses																
Sales Commission	0	(594,048)	(2,079,168)	(797,024)	0	0	0	0	0	0	0	0	0	0	0	(2,970,240)
Condo Closing Costs	0	(13,000)	(45,500)	(6,500)	0	0	0	0	0	0	0	0	0	0	0	(65,000)
Net Revenue	\$0	\$14,244,152	\$49,854,532	\$7,122,076	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$71,220,760
EXPENSES																
Ground Rent Paid by Developer	9,179,040	349,440	43,680	0	0	0	0	0	0	0	0	0	0	0	0	\$9,572,160
Insurance and Taxes	1,016,018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,016,018
Permits & Fees	81,861	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81,861
Legal	375,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	375,000
Consultant/Soft Costs	2,066,441	1,017,799	0	0	0	0	0	0	0	0	0	0	0	0	0	3,084,240
Hard Costs	24,480,986	12,020,839	0	0	0	0	0	0	0	0	0	0	0	0	0	36,426,845
Soft Cost Contingency	413,288	203,560	0	0	0	0	0	0	0	0	0	0	0	0	0	616,848
Marketing & Sales - Indirect	390,905	192,535	0	0	0	0	0	0	0	0	0	0	0	0	0	583,440
Community Relations	100,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100,000
Op. Expenses During Construction/Sell-Out	0	594,048	74,256	0	0	0	0	0	0	0	0	0	0	0	0	668,304
Net Cash Flow Unlevered	(\$38,028,539)	(\$134,089)	\$49,736,596	\$7,122,076	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,696,044

Developer Levered Cashflow

Leverage Expenses																
Financing Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Costs	(\$38,028,539)	(\$14,378,241)	(\$17,996)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$52,574,716)
Debt Balances																
Beginning of Period Balance	\$0	(\$26,880,252)	(\$28,761,557)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Senior Debt Funding	(26,880,252)	(14,378,241)	(117,936)	0	0	0	0	0	0	0	0	0	0	0	0	(\$41,376,429)
Interest	0	(1,747,216)	(1,869,501)	0	0	0	0	0	0	0	0	0	0	0	0	(\$3,616,718)
Debt Repayment	0	14,244,152	30,748,593	0	0	0	0	0	0	0	0	0	0	0	0	44,992,747
End of Period Balance	\$0	(\$26,880,252)	(\$28,761,557)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equity Contributions	\$0	(13,093,006)	0	0	0	0	0	0	0	0	0	0	0	0	0	(\$13,093,006)
Net Cash Flow Levered	\$0	(\$13,093,006)	\$0	\$19,105,537	\$7,122,076	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,134,608

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Con Ed

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
1 Land Acquisition															
Lease Payments	829,908														
Lump Sum Payment	58,717,160														
2 Insurance and Taxes															
GL Insurance	655,685														
Buildings Risk	110,735														
Taxes during Construction	249,602														
3 Permits & Fees															
Building Permit	124,800														
Other Fees	50,000														
4 Legal															
Zoning	75,000														
Architects Contract	25,000														
Construction Contract	25,000														
Financing Developers Legal	75,000														
Financing Lenders Legal	50,000														
Co-op AG Approval	50,000														
Permitting	75,000														
5 Consultants/Soft Costs															
Architects	688,400														
Landscaping Architect	124,800														
Structural Engineering	106,571														
Mechanical Engineering	95,600														
Civil Engineering	124,800														
Elevator Consultants	31,200														
Parking Consultant	14,976														
Energy Modeling	20,000														
Commissioning	75,000														
Zoning Consultants	75,000														
Survey	50,000														
Geotechnical/Soilings	50,000														
Interior Design	75,000														
Miscellaneous Consultants	50,000														
Renderings/Blue Prints/Drawings	105,785														
Model	75,000														
Other Consultant Reimbursables	75,000														
Purchase Maintenance Equipment	62,400														
Testing & Inspections	62,400														
Expediting	100,000														
Accounting	1,150,828														
Developer Fee															
Developer Overhead															
6 Hard Costs															
Preconstruction Services	150,000														
Hard Cost	29,038,400														
Sub-Total	29,188,400														
General Conditions	10.00%														
Bond Premiums	0.75%														
CM Construction Contingency	5.00%														
CM Fee	2.00%														
Escalation	34,692,233														
Owners Hard Cost Contingency	1,734,611														
	36,425,945	24,405,965	12,020,859												
	3,064,240	2,066,441	1,017,799												

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Con Ed

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
7	Soft Cost Contingency	20%	616,848	616,848	413,288	203,560	-	-	-	-	-	-	-	-	-	-
8	Construction Interest	6.5%	3,616,718	3,616,718	1,869,201	-	-	-	-	-	-	-	-	-	-	-
9	Marketing & Sales - Indirect															
	Marketing Brochures & Advertising	\$4.50	106,080	477,360	-	-	-	-	-	-	-	-	-	-	-	-
	Sales Office - Fitting Out Space	\$0.25	106,080	26,520	-	-	-	-	-	-	-	-	-	-	-	-
	Model Apartments	\$0.75	106,080	79,560	-	-	-	-	-	-	-	-	-	-	-	-
10	Marketing & Sales - Direct															
	Sales Commissions	4.0%	390,905	192,555	-	-	-	-	-	-	-	-	-	-	-	-
	Closing Legal Expenses	\$500	-	594,048	2,079,168	297,024	-	-	-	-	-	-	-	-	-	-
11	Financing Costs															
	Title & Recording	0.35%	157,476	-	-	-	-	-	-	-	-	-	-	-	-	-
	Appraisal/Market Study		75,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	M&T	2.75%	1,237,312	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lender Application Fee		25,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lender Commitment Fee	1.00%	449,931	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Community Relations		1,944,719	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Op. Expenses During Construction/Sell-Out	\$7.0	100,000	100,000	-	-	-	-	-	-	-	-	-	-	-	-
	Operating Expenses		668,304	668,304	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenses																
			61,121,392	39,973,258	16,732,505	4,112,106	303,524	-	-	-	-	-	-	-	-	-
			61,121,392	56,705,763	60,817,868	61,121,392	61,121,392	61,121,392	61,121,392	61,121,392	61,121,392	61,121,392	61,121,392	61,121,392	61,121,392	61,121,392
Total Expenses (Excluding Direct Sales & Marketing)																
			58,086,152	39,973,258	16,125,457	1,987,437	-	-	-	-	-	-	-	-	-	-
			58,086,152	56,098,715	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152
Condo																
	% Sold		0.0%	20.0%	20.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Units Sold		0	26	117	130	130	130	130	130	130	130	130	130	130	130
Total Sales																
			0	14,851,200	51,979,200	7,425,600	0	0	0	0	0	0	0	0	0	0
	Sales Commissions		0	(394,048)	(2,079,168)	(297,024)	0	0	0	0	0	0	0	0	0	0
	Closing Legal Expenses		0	(13,000)	(65,800)	(6,800)	0	0	0	0	0	0	0	0	0	0
	Net Sales		0	14,244,152	49,834,332	7,122,076	0	0	0	0	0	0	0	0	0	0
Current Scenario - Equity Funding of Project Cost before Debt Draw																
	Debt Borrowing		26,880,252	16,125,457	1,987,437	-	-	-	-	-	-	-	-	-	-	-
	Equity Funding		13,093,036	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total		39,973,258	16,125,457	1,987,437	-	-	-	-	-	-	-	-	-	-	-
	Cumulative		39,973,258	56,098,715	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152	58,086,152
Debt Beg. Balance																
			26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252	26,880,252
Debt Borrowing																
			0	16,125,457	1,987,437	-	-	-	-	-	-	-	-	-	-	-
Debt Paydown																
			0	(14,244,152)	(30,788,995)	-	-	-	-	-	-	-	-	-	-	-
Debt Ending Balance																
			26,880,252	28,761,557	-	-	-	-	-	-	-	-	-	-	-	-
Average Balance																
			26,880,252	28,761,557	-	-	-	-	-	-	-	-	-	-	-	-

Brooklyn Bridge Park Development Analysis Assumptions - Pier 1

Drawdown Scenario - Equity Upfront

Square Foot Breakdown and Schedules

	Gross	Saleable	Loss Factor	Units	Sq Ft/Unit	Revenue \$/Sq Ft	Revenue \$/Unit	Gross Revenue
Condos	150,000	127,500	15.0%	150	850	\$750	\$637,500	\$95,625,000
Total	150,000	127,500	15.0%					\$95,625,000

Sources

	Total	Per GSF	Per RSSF	Uses
Debt				Site Acquisition
Senior Debt	\$54,673,502	\$364	\$429 77.5%	Hard Costs
Equity				HC Contingencies
Total Equity	\$15,909,989	\$106	\$125 22.5%	Soft Costs
				SC Contingencies
				Interest Reserve
				Mortgage Recording Tax
				Origination Fee
				Title
				Sales & Marketing
				Operating Expenses
				Legal, Taxes, Insurance & Other
Total Sources:	\$70,583,491	\$471	\$554 100.0%	Total Uses

Breakdown Analysis

	Per GSF	Per RSSF
Construction Loan	\$364	\$429
Construction Loan & Equity	\$471	\$554
Construction Loan, Equity & Implied Land Value	\$584	\$687

Lease Assumptions

Date	Payment	Type
Year 4	\$11,250,000	One-Time
Year 4	\$75	4
Land Valuation		
Annual Ground Rent	\$862,500	\$5.75
Implied Land Value	\$29,898,981	\$199.33
NPV Assumptions		
Discount Rate	7.0%	
Rent Escalations	3.0%	15th year, ever 10 thereafter

Cost Analysis	Total	Per GSF	Per RSSF
Cost/Sell-out Lease Pmts	1,638,750	11	13
Lump Sum Payment	11,250,000	75	88
Total Lease Payments	\$12,888,750	\$86	\$101
Total Hard Costs	\$43,651,046	\$291	\$342
Total Soft Costs	3,859,392	26	30
Other Expenses	10,184,303	68	80
Total Project Costs	70,583,491	\$471	\$554

Timing	Year
Construction Begin	4
Construction Duration (in Years)	2
Construction Completion	5

Debt Assumptions	
Senior Debt	
Construction Loan	
LTC	80.0%
Amount	\$54,673,502
Fixed Interest Rate?	Yes
Total Fixed Interest Rate	6.50%
Drawdown Schedule	Equity Upfront
Origination Fee	1.00%
Mortgage Recording Tax	2.75%

Condominium Assumptions	
Hard Costs (PGSF)	\$291
Operating Exp (PRSSF)	\$7.00
Brokerage	3.00%
Per Unit Closing Costs	\$500
Sales Assumptions	% of Units
Year 5	20.0%
Year 6	70.0%
Year 7	10.0%
Total	100.0%

Development Assumptions	
Developer Fee (% of Hard/Soft Costs)	3.0%
General Conditions (% of Hard Costs)	10.0%
CM Contingency (% of Hard & Fees)	5.0%
Owners Contingency (% of Hard & Fees)	0.0%
Soft Cost Contingency (% of Soft Costs)	20.0%

Tax Assumptions	
PILOT (Per 1 Res. Land)	\$150,000
PILOT (per ex. Land)	\$7.00
Abatement - first 11 years	100.0%
Abatement - 12th year	80.0%
Abatement - 13th year	60.0%
Abatement - 14th year	40.0%
Abatement - 15th year	20.0%
Thereafter	0.0%
Escalation	1.5%

Brooklyn Bridge Park Development Analysis

Cash Flow Summary - Pier 1

Drawdown Scenario - Equity Upfront

Developer Unlevered Cashflow

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	TOTALS
Revenues																
Condo Sales	0	0	0	0	19,125,000	66,937,500	9,562,500	0	0	0	0	0	0	0	0	\$95,625,000
Percent Absorbed					20%	70%	10%									100.0%
Number Units Absorbed					30	105	15									\$150
Expenses																
Sales Commission	0	0	0	0	(573,750)	(2,008,125)	(286,875)	0	0	0	0	0	0	0	0	(2,868,750)
Condo Closing Costs	0	0	0	0	(115,000)	(52,500)	(71,500)	0	0	0	0	0	0	0	0	(75,000)
Net Revenue	\$0	\$0	\$0	\$0	\$18,551,250	\$64,876,875	\$9,268,125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$92,681,250
Expenses																
Ground Rent Paid by Developer	0	0	0	12,112,500	690,000	\$6,250	0	0	0	0	0	0	0	0	0	\$12,888,750
Insurance and Taxes	0	0	0	1,218,485	0	0	0	0	0	0	0	0	0	0	0	1,218,485
Permits & Fees	0	0	0	339,259	0	0	0	0	0	0	0	0	0	0	0	339,259
Legal	0	0	0	375,000	0	0	0	0	0	0	0	0	0	0	0	375,000
Commissions/Soft Costs	0	0	0	2,154,827	1,061,333	0	0	0	0	0	0	0	0	0	0	3,216,160
Hard Costs	0	0	0	29,246,201	14,404,845	0	0	0	0	0	0	0	0	0	0	43,651,046
Soft Cost Contingency	0	0	0	430,965	212,267	0	0	0	0	0	0	0	0	0	0	643,232
Marketing & Sales - Indirect	0	0	0	469,638	231,413	0	0	0	0	0	0	0	0	0	0	701,250
Community Relations	0	0	0	75,000	0	0	0	0	0	0	0	0	0	0	0	75,000
Op. Expenses During Construction/Sell-Out	0	0	0	0	714,000	\$9,250	0	0	0	0	0	0	0	0	0	\$91,250
Net Cash Flow Unlevered	\$0	\$0	\$0	(\$46,422,175)	\$1,222,293	\$64,701,375	\$9,268,125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,763,718

Developer Levered Cashflow

Leverage Expenses																
Financing Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Costs	\$0	\$0	\$0	(\$46,422,175)	(\$17,313,857)	(\$175,500)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$63,911,532)
Debt Balances																
Beginning of Period Balance	\$0	\$0	\$0	\$0	(\$32,833,799)	(\$33,766,903)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Senior Debt Funding	0	0	0	(32,833,799)	(17,313,857)	(175,500)	0	0	0	0	0	0	0	0	0	(\$50,341,156)
Interest	0	0	0	0	(2,135,497)	(2,194,849)	0	0	0	0	0	0	0	0	0	(4,330,346)
Debt Repayment	0	0	0	0	18,536,250	36,137,252	0	0	0	0	0	0	0	0	0	\$54,673,502
End of Period Balance	\$0	\$0	\$0	(\$32,833,799)	(\$33,766,903)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equity Contributions																
Equity Contributions	\$0	\$0	\$0	(15,909,989)	0	0	0	0	0	0	0	0	0	0	0	(\$15,909,989)
Net Cash Flow Levered	\$0	\$0	\$0	(\$0)	\$0	\$38,739,623	\$9,268,125	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,697,759

Draw Schedule - Pier 1

[illegible]

Brooklyn Bridge Park Development Analysis Draw Schedule - Pier 1

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
7	Soft Cost Contingency	20%	643,232													
8	Construction Interest	6.5%	4,330,346													
9	Marketing & Sales - Indirect															
	Marketing Brochures & Advertising		127,500													
	Sales Office - Firing Out Space		31,875													
	Model Apartments		127,500													
10	Marketing & Sales - Direct															
	Sales Commissions	3.0%	2,868,750													
	Closing Legal Expenses	\$500	75,000													
11	Financing Costs															
	Title & Recording	0.35%	191,357													
	Appraisal/Market Study		75,000													
	MRT	2.75%	1,938,321													
	Lender Application Fee		25,000													
	Financial Consultant															
	Lender Commitment Fee	1.00%	546,735													
12	Community Relations															
13	Op. Expenses During Construction/Soft-Cost	57.0	\$892,500													
	Operating Expenses		803,250													
Total Expenses																
			73,527,241													
Total Expenses (Excluding Direct Sales & Marketing)																
			70,583,491													
Guarantee																
	% Sold		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Units Sold		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Sales																
			0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sales Commissions																
			0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closing Legal Expenses																
			0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Sales																
			0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-Rate Funding after Construction Begins																
	Debt Borrowing	80%														
	Equity Funding	20%														
	Total															
			39,011,031													
			9,752,788													
	Cumulative															
			48,763,788													
Equity Funding of Project Cost before Debt Draw																
	Debt Borrowing															
	Equity Funding															
	Total															
			32,853,799													
	Cumulative															
			15,909,589													
Current Scenario - Equity Funding of Project Cost before Debt Draw																
	Debt Borrowing															
	Equity Funding															
	Total															
			32,853,799													
	Cumulative															
			15,909,589													
Debt Beg. Balance																
Debt Borrowing																
Debt Paydown																
Debt Ending Balance																
Average Balance																

Brooklyn Bridge Park Development Analysis

Pier 1 Hotel - Summary

Physical Detail

Number of rooms:	224
Total GSF	175,000
Avg. SF/room:	781

Key Dates

Construction Start:	1/1/2010
Construction Months:	24
Opening Date:	2012

Amenities

Restaurant/Lounge Seats:	300
Meeting Space SF:	30,000
Spa SF:	10,000

Brooklyn Bridge Park Development Analysis

Pier 1 Hotel - Preliminary Facilities Program

Portion for Hotel Use:	175,000
Est. Gross Area per Key:	780
Number of Keys:	224
Guestroom Area	
Suites as % of keys:	15%
Number of Suites:	34
SF/Suite Key (net):	750
Total SF Suites:	25,500
Standard rooms:	190
SF/standard room (net):	400
Total SF Standard Rooms:	76,000
Support (linen, vending, ice) per rm:	12
Total SF support:	2,688
Total Guestroom Area:	104,188
Lobby (SF/key)	35
Total Lobby SF:	7,840
Food & Beverage (SF/Key):	35
Total Food & Beverage SF:	7,840
Meeting Space (SF/Key):	135
Total Meeting Space SF:	30,240
Recreation Space (SF/Key):	45
Total Recreation Space SF:	10,080
Admin/BOH Space (SF/Key):	70
Total Admin/BOH Space SF:	15,680

Brooklyn Bridge Park Development Analysis

Pier 1 Hotel - Preliminary Development Budget

Number of Keys	224
Hotel Total Area (SF)	175,000

		<u>Per Key</u>	<u>Per SF</u>
Hard Costs	52,500,000	234,375	300
Soft Costs	22,750,000	101,563	130
FF&E, OS&E, and Pre-Opening Expenses	9,408,000	42,000	54
Working Capital	1,792,000	8,000	10
Contingency	1,000,000	4,464	6
Total Development Budget	87,450,000	390,402	500

Brooklyn Bridge Park Development Analysis

Pier 1 Hotel - Pro- Forma Financial Estimates

Brooklyn Bridge Park Budget Year	Year 6 2012	Year 10 2016	Year 15 2021	Year 16 2022	Year 17 2023	Year 18 2024	Year 19 2025	Year 20 2026
Occupancy	78%	83%	83%	83%	83%	83%	83%	83%
Annual Occupied Rooms	63,773	67,996	67,996	67,996	67,996	67,996	67,996	67,996
Room Rate (2007 year dollars)	\$ 356	\$ 374	\$ 411	\$ 420	\$ 428	\$ 437	\$ 445	\$ 453
Revenue	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
rooms	22,717	25,431	27,974	28,531	29,103	29,695	30,266	30,810
food & beverage	6,504	7,653	8,872	9,138	9,412	9,695	9,985	10,285
telephone	385	459	532	548	565	582	599	617
minor operated departments	324	383	444	457	471	485	499	514
rental & other income	194	230	266	274	282	291	300	309
Total Revenue	30,125	34,156	38,088	38,949	39,833	40,747	41,649	42,534
Departmental Expenses								
rooms	6,779	7,606	8,609	8,830	9,053	9,288	9,521	9,758
food & beverage	5,564	6,505	7,541	7,767	8,000	8,240	8,488	8,742
telephone	403	459	532	548	565	582	599	617
minor operated departments	199	230	266	274	282	291	300	309
Total	12,945	14,800	16,949	17,420	17,901	18,401	18,907	19,426
Undistributed Operating Expenses								
administrative & general	1,727	1,952	2,234	2,296	2,359	2,425	2,492	2,559
management	904	1,025	1,143	1,168	1,195	1,222	1,249	1,276
marketing	1,519	1,716	1,968	2,023	2,080	2,138	2,198	2,258
property op & maint.	873	985	1,132	1,164	1,197	1,231	1,266	1,301
energy	551	622	717	738	759	781	804	827
Total Undistributed Exp.	5,574	6,299	7,193	7,388	7,590	7,797	8,008	8,221
Income Before Fixed Charges	11,606	13,056	13,946	14,140	14,342	14,549	14,734	14,887
Fixed Charges								
property taxes	657	697	751	763	774	786	797	1,009
insurance	45	50	58	60	62	64	66	68
rent (see schedule below)	1,878	2,235	2,591	2,669	2,749	2,832	2,917	3,004
reserve for replacement	301	1,708	1,904	1,947	1,992	2,037	2,082	2,127
Total Fixed Charges	2,881	4,691	5,305	5,439	5,577	5,719	5,863	6,208
Net Operating Income	8,725	8,366	8,640	8,701	8,765	8,830	8,872	8,679
BBPDC Income								
PiLOT payments	657	697	751	763	774	786	797	1,009
Park Maintenance	1,878	2,235	2,591	2,669	2,749	2,832	2,917	3,004
Total	2,535	2,932	3,342	3,432	3,523	3,618	3,714	4,013

Brooklyn Bridge Park Development Analysis

Assumptions and Net Present Value Summary - Comparison of Base Case to Reduced Density Alternative⁽¹⁾

Con Ed

Assumptions

	BASE CASE	ALTERNATIVE	DIFFERENCE
Number of residential floors	13	13	-
Gross Sq Ft Per Floor	9,600	9,600	-
Gross Sq Ft	124,800	124,800	-
Revenue \$ Per Sq Ft	\$ 700	\$ 700	-
Land Value Per Sq Ft	\$ 70	\$ 70	-
Annual Ground Rent Per Sq Ft	\$ 3.50	\$ 3.50	-

PV of Revenue	\$ 20,025,000	\$ 20,025,000	\$ -
PV of Revenue Per Sq Ft	\$ 160	\$ 160	\$ -

Pier 6 - High-Rise and Mid-Rise

Assumptions

Number of residential floors	38	14	(24)
Gross Sq Ft	429,450	139,400	(290,050)
Revenue \$ Per Sq Ft	\$ 725	\$ 650	\$(75)
Land Value Per Sq Ft	\$ 70	\$ 50	\$(20)
Annual Ground Rent Per Sq Ft	\$ 3.50	\$ 2.25	\$(1.25)

PV of Revenue	\$ 69,330,000	\$ 18,446,000	\$(50,884,000)
PV of Revenue Per Sq Ft	\$ 161	\$ 132	\$(29)

Pier 1

Assumptions

Number of residential units	150	180	30
Gross Sq Ft	150,000	180,000	30,000
Revenue \$ Per Sq Ft	\$ 750	\$ 750	-
Land Value Per Sq Ft	\$ 75	\$ 75	-
Annual Ground Rent Per Sq Ft	\$ 5.75	\$ 5.75	-

PV of Revenue	\$ 20,911,000	\$ 24,937,000	\$ 4,026,000
PV of Revenue Per Sq Ft	\$ 139	\$ 139	-

Hotel

Assumptions⁽²⁾

Number of hotel rooms	225	170	(55)
Gross Sq Ft	175,000	145,000	(30,000)

PV of Revenue	\$ 20,725,000	\$ 21,550,000	\$ 825,000
PV of Revenue Per Sq Ft	\$ 153	\$ 179	\$ 26

Revenues from MOUs Currently Under Negotiation

PV of Revenue	\$ 73,907,000	\$ 73,907,000	\$ -
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Subtotal	\$ 210,898,000	\$ 158,873,000	\$(52,024,000)
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⁽¹⁾ 20-year Net Present Value using 7% discount rate.

⁽²⁾ See hotel pro-forma for additional assumptions.

Brooklyn Bridge Park Development Analysis
Net Present Value Summary - Reduced Density Alternative

Present Value of Revenue by property - 20 years, 7% Discount Rate	
Con Ed - Upfront payment for land	8,742,000
Con Ed - One-time taxes and fees	3,190,000
Con Ed - Recurring Revenues	8,093,000
Pier 6 - Upfront payment for land	6,970,000
Pier 6 - One-time taxes and fees	4,462,000
Pier 6 - Recurring Revenues	7,014,000
Pier 1 - Upfront payment for land	10,299,000
Pier 1 - One-time taxes and fees	3,614,000
Pier 1 - Recurring Revenues	11,024,000
Hotel - Upfront payment for land	-
Hotel - One-time taxes and fees	2,569,000
Hotel - Recurring Revenues	18,990,000
MOUs Currently Under Negotiation - One-time taxes & fees	6,285,000
MOUs Currently Under Negotiation - Recurring Revenues	67,621,000
Total Value	\$ 158,873,000
Present Value of Park Maintenance Budget	\$ (196,228,000)

Brooklyn Bridge Park Development Analysis Cash Flow Summary - Reduced Density Alternative (\$ millions)

	Year 1	Year 5	Year 10	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Endowment at beginning of year	\$29.0	\$36.6	(\$8.0)	(\$58.4)	(\$85.9)	(\$73.2)	(\$80.0)	(\$85.7)	(\$91.2)
Revenues									
Recording Fee	2.0	5.7	6.9	8.1	8.3	8.5	9.2	9.4	9.6
Park Maintenance Fee	1.5	3.5	3.7	9.5	10.3	11.4	12.6	13.3	14.3
Payments in Lieu of Taxes (PILOT)	3.5	9.1	10.5	17.6	18.5	19.8	21.8	22.7	23.9
Total Revenues	7.0	18.3	21.1	25.2	27.1	29.7	33.6	35.4	37.8
Non-Recurring Fees									
Upfront payment for land	19.2	-	-	-	-	-	-	-	-
Construction PILOT: Estimated at 8% of 50% of hard costs	9.7	-	-	-	-	-	-	-	-
Mortgage Recording Tax: 2.75% of Senior debt	29.0	-	-	-	-	-	-	-	-
Total Non-Recurring Fees	57.9	-	-	-	-	-	-	-	-
Total Revenues	64.9	18.3	21.1	25.2	27.1	29.7	33.6	35.4	37.8
Expenses									
Park Maintenance Budget	(4.8)	(18.7)	(21.7)	(25.1)	(25.9)	(26.7)	(27.5)	(28.3)	(29.1)
Annual surplus/deficit	29.0	0.5	(11.1)	(7.5)	(7.3)	(6.8)	(5.7)	(5.5)	(5.3)
Endowment at end of year	\$29.0	\$29.4	(\$19.2)	(\$65.9)	(\$73.2)	(\$80.0)	(\$85.7)	(\$91.2)	(\$96.5)

Revenues are not sufficient to support maintenance and operations after Year 10.

Components of Park Revenue:

Non-recurring revenues:

- Upfront payment for land
- Construction PILOT: Estimated at 8% of 50% of hard costs
- Mortgage Recording Tax: 2.75% of Senior debt

Recurring Revenues:

- PILOT: Standard calculation with 421-a abatement on new development
- Park Maintenance fees: \$2.25-\$5.75 per gross square foot

MOUs currently under negotiation:

- Empire Stores and 360 Furman renovation currently under negotiation.

Brooklyn Bridge Park Development Analysis

Assumptions and Net Present Value Summary⁽¹⁾
Modified Design Alternative

Con Ed

Assumptions

Number of residential floors	13
Gross Sq Ft Per Floor	9,600
Gross Sq Ft	124,800
Revenue \$ Per Sq Ft	\$ 700
Land Value Per Sq Ft	\$ 70
Annual Ground Rent Per Sq Ft	\$ 3.50

<u>PV of Revenue</u>	\$ 20,025,000
<u>PV of Revenue Per Sq Ft</u>	\$ 160

Pier 6 - High-Rise and Mid-Rise

Assumptions

Number of residential floors	38
Gross Sq Ft	429,450
Revenue \$ Per Sq Ft	\$ 725
Land Value Per Sq Ft	\$ 70
Annual Ground Rent Per Sq Ft	\$ 3.50

<u>PV of Revenue</u>	\$ 69,330,000
<u>PV of Revenue Per Sq Ft</u>	\$ 161

Pier 1

Assumptions

Number of residential units	180
Gross Sq Ft	180,000
Revenue \$ Per Sq Ft	\$ 750
Land Value Per Sq Ft	\$ 75
Annual Ground Rent Per Sq Ft	\$ 5.75

<u>PV of Revenue</u>	\$ 24,953,000
<u>PV of Revenue Per Sq Ft</u>	\$ 139

Hotel

Assumptions⁽²⁾

Number of hotel rooms	170
Gross Sq Ft	145,000

<u>PV of Revenue</u>	\$ 22,153,000
<u>PV of Revenue Per Sq Ft</u>	\$ 153

Revenues from MOUs Currently Under Negotiation

<u>PV of Revenue</u>	\$ 80,297,000
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Total	\$ 216,758,000
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⁽¹⁾ 20-year Net Present Value using 7% discount rate.

⁽²⁾ See hotel pro-forma for additional hotel assumptions.

Brooklyn Bridge Park Development Analysis

Net Present Value Summary

Modified Design Alternative

Present Value of Revenue by property - 20 years, 7% Discount Rate	
Con Ed - Upfront payment for land	8,742,000
Con Ed - One-time taxes and fees	3,190,000
Con Ed - Recurring Revenues	8,093,000
Pier 6 Total - Upfront payment for land	30,083,000
Pier 6 Total - One-time taxes and fees	11,399,000
Pier 6 Total- Recurring Revenues	27,848,000
Pier 1 - Upfront payment for land	10,299,000
Pier 1 - One-time taxes and fees	3,614,000
Pier 1 - Recurring Revenues	11,040,000
Hotel - Upfront payment for land	-
Hotel - One-time taxes and fees	2,901,000
Hotel - Recurring Revenues	19,252,000
MOUs Currently Under Negotiation - One-time taxes & fees	6,542,000
MOUs Currently Under Negotiation - Recurring Revenues	73,755,000
Total Value	216,758,000
Present Value of Park Maintenance Budget	
	(\$196,228,000)

Brooklyn Bridge Park Development Analysis

Cash Flow Summary (\$ millions)

Modified Design Alternative

	Year 1	Year 5	Year 10	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Endowment at beginning of year	\$0.0	\$58.3	\$80.7	\$60.6	\$34.8	\$33.0	\$31.8	\$32.9	\$34.6
Revenues									
Recurring Fees									
Park Maintenance Fees	3.2	7.3	8.3	10.2	10.4	10.6	11.3	11.5	11.7
Payments in Lieu of Taxes (PILOT)	1.8	4.2	4.4	11.3	12.6	14.2	16.0	16.8	17.9
Total Recurring Fees	5.0	11.5	12.7	21.5	23.0	24.8	27.3	28.4	29.6
Non-Recurring Fees									
Up-front payments for land	38.8	-	-	-	-	-	-	-	-
One-time taxes and fees	19.5	2.3	-	-	-	-	-	-	-
Total Non-Recurring Fees	58.3	2.3	-	-	-	-	-	-	-
Return on Investment	1.5	4.0	3.2	1.8	1.7	1.6	1.6	1.6	1.7
Total Revenues	8.8	15.5	15.9	23.3	24.7	26.4	28.9	30.0	31.3
Expenses									
Park Maintenance Budget	(4.8)	(18.7)	(21.7)	(25.1)	(25.9)	(26.7)	(27.5)	(28.3)	(29.1)
Annual surplus/deficit	58.3	4.0	(3.2)	(5.8)	(1.8)	(0.3)	1.4	1.7	2.2
Endowment at end of year	\$58.3	\$62.3	\$77.5	\$54.8	\$33.0	\$31.8	\$32.9	\$34.6	\$36.8

Note: Some numbers may not add due to rounding.

The endowment is at its lowest point in Year 17 after which recurring fees are sufficient to sustain park maintenance and operations.

Components of Park Revenue:

Non-recurring revenues:

Upfront payment for land

Construction PILOT: Estimated at 8% of 50% of hard costs

Mortgage Recording Tax: 2.75% of Senior debt.

Recurring Revenues:

PILOT: Standard calculation with 421-a abatement on new development

Park Maintenance fees: \$3.50-\$5.75 per gross square foot.

MOUs currently under negotiation:

Empire Stores and 360 Furman renovation currently under negotiation.

Brooklyn Bridge Park Development Analysis

Assumptions and Net Present Value Summary⁽¹⁾

Modified Pier 6 Residential Building Design Alternative, Scheme 1

Con Ed

Assumptions

Number of residential floors	13
Gross Sq Ft Per Floor	9,600
Gross Sq Ft	124,800
Revenue \$ Per Sq Ft	\$ 700
Land Value Per Sq Ft	\$ 70
Annual Ground Rent Per Sq Ft	\$ 3.50

<u>PV of Revenue</u>	\$ 20,025,000
<u>PV of Revenue Per Sq Ft</u>	\$ 160

Pier 6 - High-Rise and Mid-Rise

Assumptions

Number of residential floors	44
Gross Sq Ft	434,720
Revenue \$ Per Sq Ft	\$ 725
Land Value Per Sq Ft	\$ 70
Annual Ground Rent Per Sq Ft	\$ 3.50

<u>PV of Revenue</u>	\$ 70,151,000
<u>PV of Revenue Per Sq Ft</u>	\$ 161

Pier 1

Assumptions

Number of residential units	180
Gross Sq Ft	180,000
Revenue \$ Per Sq Ft	\$ 750
Land Value Per Sq Ft	\$ 75
Annual Ground Rent Per Sq Ft	\$ 5.75

<u>PV of Revenue</u>	\$ 24,953,000
<u>PV of Revenue Per Sq Ft</u>	\$ 139

Hotel

Assumptions⁽²⁾

Number of hotel rooms	170
Gross Sq Ft	145,000

<u>PV of Revenue</u>	\$ 22,153,000
<u>PV of Revenue Per Sq Ft</u>	\$ 153

Revenues from MOUs Currently Under Negotiation

<u>PV of Revenue</u>	\$ 80,297,000
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Total	\$ 217,579,000
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⁽¹⁾ 20-year Net Present Value using 7% discount rate.

⁽²⁾ See hotel pro-forma for additional hotel assumptions.

Brooklyn Bridge Park Development Analysis

Net Present Value Summary

Modified Pier 6 Residential Building Design Alternative, Scheme 1

Present Value of Revenue by property - 20 years, 7% Discount Rate	
Con Ed - Upfront payment for land	8,742,000
Con Ed - One-time taxes and fees	3,190,000
Con Ed - Recurring Revenues	8,093,000
Pier 6 Total - Upfront payment for land	30,452,000
Pier 6 Total - One-time taxes and fees	11,509,000
Pier 6 Total - Recurring Revenues	28,190,000
Pier 1 - Upfront payment for land	10,299,000
Pier 1 - One-time taxes and fees	3,614,000
Pier 1 - Recurring Revenues	11,040,000
Hotel - Upfront payment for land	-
Hotel - One-time taxes and fees	2,901,000
Hotel - Recurring Revenues	19,252,000
MOUs Currently Under Negotiation - One-time taxes & fees	6,542,000
MOUs Currently Under Negotiation - Recurring Revenues	73,755,000
Total Value	217,579,000

Present Value of Park Maintenance Budget	(\$196,228,000)
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Brooklyn Bridge Park Development Analysis

Cash Flow Summary (\$ millions)

Modified Pier 6 Residential Building Design Alternative, Scheme 1

	Year 1	Year 5	Year 10	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Endowment at beginning of year	\$0.0	\$38.8	\$81.4	\$61.5	\$36.0	\$34.4	\$33.2	\$34.8	\$36.7
Revenues									
Recurring Fees									
Park Maintenance Fees	3.2	7.3	8.3	10.2	10.4	10.6	11.4	11.6	11.8
Payments in Lieu of Taxes (PILOT)	1.8	4.2	4.5	11.4	12.6	14.3	16.1	16.9	17.9
Total Recurring Fees	5.0	11.5	12.7	21.6	23.0	24.9	27.4	28.4	29.7
Non-Recurring Fees									
Up-front payments for land	39.2	-	-	-	-	-	-	-	-
One-time taxes and fees	19.6	2.3	-	-	-	-	-	-	-
Total Non-Recurring Fees	58.8	2.3	-	-	-	-	-	-	-
Return on Investment	1.5	4.0	3.2	1.9	1.8	1.7	1.7	1.7	1.8
Total Revenues	8.8	15.6	15.9	23.5	24.8	26.6	29.1	30.1	31.5
Expenses									
Park Maintenance Budget	(4.8)	(18.7)	(21.7)	(25.1)	(25.9)	(26.7)	(27.5)	(28.3)	(29.1)
Annual surplus/deficit	58.8	4.0	(3.1)	(5.7)	(1.1)	(0.1)	1.6	1.9	2.3
Endowment at end of year	\$58.8	\$62.8	\$78.3	\$55.8	\$34.4	\$33.3	\$34.8	\$36.7	\$39.0

Note: Some numbers may not add due to rounding.

The endowment is at its lowest point in Year 17 after which recurring fees are sufficient to sustain park maintenance and operations.

Components of Park Revenue:

Non-recurring revenues:

Upfront payment for land

Construction PILOT: Estimated at 8% of 50% of hard costs

Mortgage Recording Tax: 2.75% of Senior debt.

Recurring Revenues:

PILOT: Standard calculation with 421-a abatement on new development

Park Maintenance fees: \$3.50-\$5.75 per gross square foot.

MOUs currently under negotiation:

Empire Stores and 360 Furman renovation currently under negotiation.

Brooklyn Bridge Park Residential Development Analysis

Assumptions - Pier 6

Drawdown Scenario - Equity Upfront

Square Foot Breakdown and Schedules

	Gross	Saleable	Loss Factor	Units	Sq Ft/Unit	Revenue \$/Sq Ft	Revenue \$/Unit	Gross Revenue
Condos	434,720	369,512	15.0%	430	859	\$725	\$623,014	\$267,895,200
Condos - High-rise	296,400	251,940	15.0%	290	869	\$738	\$640,709	\$183,805,750
Condos - Mid-rise	138,320	117,572	15.0%	140	840	\$688	\$577,363	\$80,830,750
Total	434,720	369,512	15.0%					\$266,696,500

Sources	Total	Per GSF	Per RSSE	Uses	Total	Per GSF	Per RSSE
Debt				Site Acquisition	\$33,343,024	\$77	\$90
Senior Debt	\$163,112,637	\$375	\$441 77.5%	Hard Costs	\$136,174,713	\$313	\$369
Equity				H/C Contingencies	0		0
Total Equity	\$47,465,783	\$109	\$128 22.5%	Soft Costs	9,784,269	23	26
				SC Contingencies	1,956,854	5	5
				Interest Reserve	13,088,361	30	35
				Mortgage Recording Tax	4,485,598	10	12
				Origination Fee	1,631,127	4	4
				Title	\$70,894	1	2
				Sales & Marketing	2,032,316	5	6
				Operating Expenses	2,327,926	5	6
				Legal, Taxes, Insurance & Other	5,183,360	12	14
Total Sources	\$210,578,440	\$484	\$570 100.0%	Total Uses	\$210,578,440	\$484	\$570

Breakeven Analysis	Sales	Per RSSE
Construction Loan	\$375	\$441
Construction Loan & Equity	\$484	\$570
Construction Loan, Equity & Implied Land Value	\$553	\$651

Lease Assumptions	Date	Payment	Type
Upfront Price per SF	Year 1	\$70	One-Time
Lump Sum Payment		\$30,452,136	
Land Valuation		\$1,521,520	
Annual Ground Rent		\$3.50	
Implied Land Value		\$63,550,453	
NPV Assumptions		\$145.73	
Discount Rate		7.0%	
Rent Escalations		3.0%	15th year, ever 10 thereafter

Cost Analysis	Total	Per GSF	Per RSSE
Const/Sell-out Lease Pmt	2,890,838	7	8
Lump Sum Payment	30,452,136	70	82
Total Lease Payments	\$33,343,024	\$77	\$90
Total Hard Costs	\$136,174,713	\$313	\$369
Total Soft Costs	11,741,123	27	32
Other Expenses	29,319,581	67	79
Total Project Costs	210,578,440	\$484	\$570
Timing			Year
Construction Begin			1
Construction Duration (in Years)			2
Construction Completion			

Debt Assumptions	
Senior Debt	
Construction Loan	80.0%
LTC	\$163,112,637
Amount	
Fixed Interest Rate?	Yes
Total Fixed Interest Rate	6.50%
Drawdown Schedule	Equity Upfront
Origination Fee	1.00%
Mortgage Recording Tax	2.75%

Condominium Assumptions	
Hard Costs (PGSF)	\$313
Operating Exp. (PRSSF)	\$7.00
Brokerage	4.00%
Per Unit Closing Costs	\$500
Sales Assumptions	% of Units
Year 2	20.0%
Year 3	70.0%
Year 4	10.0%
Total	100.0%
Total	430

Development Assumptions	
Developer Fee (% of Hard/Soft Costs)	3.0%
General Conditions (% of Hard Costs)	10.0%
CM Contingency (% of Hard & Fees)	5.0%
Owners Contingency (% of Hard & Fees)	0.0%
Soft Cost Contingency (% of Soft Costs)	20.0%

Tax Assumptions	
PILOT (Per 6 Land)	\$434,720
PILOT (per ex. Land)	\$7.00
Abatement - first 11 years	100.0%
Abatement - 12th year	80.0%
Abatement - 13th year	60.0%
Abatement - 14th year	40.0%
Abatement - 15th year	20.0%
Thereafter	0.0%
Escalation	1.5%

Brooklyn Bridge Park Residential Development Analysis

Cash Flow Summary - Pier 6

Drawdown Scenario - Equity Upfront

Developer Unlevered Cashflow

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	TOTALS
Revenues																
Condo Sales	0	55,579,240	187,577,340	26,789,620	0	0	0	0	0	0	0	0	0	0	0	\$267,896,200
Percent Absorbed		20%	70%	10%												100.0%
Number Units Absorbed		86	301	43												530
Sales Commission	0	-2,143,170	-7,501,094	-1,071,585	0	0	0	0	0	0	0	0	0	0	0	-10,715,848
Condo Closing Costs	0	-451,000	-150,500	-211,500	0	0	0	0	0	0	0	0	0	0	0	-215,000
Net Revenue	\$0	\$51,993,070	\$179,875,746	\$25,696,535	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$236,965,352
Expenses																
Ground Rent Paid by Developer	31,973,656	1,217,216	152,152	0	0	0	0	0	0	0	0	0	0	0	0	\$33,343,024
Insurance and Taxes	3,722,376	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,722,376
Permits & Fees	310,984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	310,984
Legal	775,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	775,000
Construction/Soft Costs	6,553,460	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,553,460
Hard Costs	3,228,809	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,228,809
Soft Cost Contingency	91,237,097	44,937,655	0	0	0	0	0	0	0	0	0	0	0	0	0	136,174,753
Marketing & Sales - Indirect	1,311,092	645,762	0	0	0	0	0	0	0	0	0	0	0	0	0	1,956,854
Community Relations	1,361,652	670,664	0	0	0	0	0	0	0	0	0	0	0	0	0	2,032,316
Op. Expenses During Construction/Sell-Out	250,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250,000
Net Cash Flow Unlevered	(\$137,497,277)	(\$1,376,303)	\$179,464,936	\$25,696,535	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66,287,891

Developer Levered Cashflow

Leverage Expenses																
Financing Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Costs	(\$137,497,277)	(\$2,762,373)	(\$410,810)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$190,677,461)
Debt Balances																
Beginning of Period Balance	\$0	\$0	(\$96,844,113)	(\$104,515,283)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$150,024,296)
Senior Debt Funding	-96,844,113	-52,769,373	-410,810	0	0	0	0	0	0	0	0	0	0	0	0	-13,088,361
Interest	0	-6,294,867	-6,793,493	0	0	0	0	0	0	0	0	0	0	0	0	165,112,657
Debt Repayment	0	51,395,070	111,719,387	0	0	0	0	0	0	0	0	0	0	0	0	0
End of Period Balance	\$0	(\$96,844,113)	(\$104,515,283)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
Equity Contributions	\$0	-47,465,783	0	0	0	0	0	0	0	0	0	0	0	0	0	(\$47,465,783)
Net Cash Flow Levered	\$0	(\$47,465,783)	\$0	\$68,156,160	\$25,696,535	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$46,386,912

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Pier 6

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
1 Land Acquisition															
Lease Payments	2,890,888														
Lump Sum Payment	30,452,136	1,217,216	152,152	0	0	0	0	0	0	0	0	0	0	0	0
	33,343,024														
2 Insurance and Taxes															
GL Insurance	2,451,145														
Builder's Risk	401,791														
Taxes during Construction	869,440														
	3,722,376														
3 Permits & Fees															
Building Permit	110,984														
Other Fees	265,650														
	316,634														
4 Legal															
Zoning	200,000														
Architects Contract	25,000														
Construction Contract	25,000														
Financing Developer Legal	150,000														
Financing Lender Legal	100,000														
Co-op AG Approval	75,000														
Permitting	200,000														
	775,000														
5 Construction/Soft Costs															
Architects	5.50	434,720													
Landscaping Architect	0.86	434,720													
Structural Engineering	0.75	434,720													
Mechanical Engineering	1.00	434,720													
Civil Engineering	0.25	434,720													
Electrical Engineering	0.12	434,720													
Interior Consultant															
Energy Modeling															
Construction Management															
Zoning Consultant															
Survey															
Geotechnical/Soils															
Interior Design															
Miscellaneous Consultants															
Renderings/Blue Prints/Drawings															
Model															
Other Consultant Reimbursables															
Purchase Maintenance Equipment															
Testing & Inspections															
Expediting															
Accounting															
Developer Fee															
Developer Overhead															
		9,784,369	6,555,460												
6 Hard Costs															
Preconstruction Services															
Hard Cost															
Sub-Total															
General Conditions															
Bond Premiums															
CM Construction Contingency															
CM Fee															
Escalation															
Owners Hard Cost Contingency															
		136,174,713	91,237,087												

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Pier 6

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
7	Soft Cost Contingency	20%	1,596,854	1,596,854	1,311,092	645,762	-	-	-	-	-	-	-	-	-	-
8	Construction Interest	6.5%	13,085,361	13,085,361	6,294,987	6,294,987	-	-	-	-	-	-	-	-	-	-
9	Marketing & Sales - Indirect	84.50	369,512	1,662,804	-	-	-	-	-	-	-	-	-	-	-	-
	Marketing & Sales - Direct	30.25	369,512	92,578	-	-	-	-	-	-	-	-	-	-	-	-
	Sales Office - Firing On Space	30.75	369,512	277,154	-	-	-	-	-	-	-	-	-	-	-	-
10	Marketing & Sales - Direct	4.0%	10,715,848	1,361,652	670,664	-	-	-	-	-	-	-	-	-	-	-
	Sales Commissions	\$300	-	2,143,170	1,071,585	-	-	-	-	-	-	-	-	-	-	-
	Closing Legal Expenses		-	43,000	21,500	-	-	-	-	-	-	-	-	-	-	-
11	Financing Costs															
	Title & Recording	0.35%	570,894	-	-	-	-	-	-	-	-	-	-	-	-	-
	Appraisal/Market Study		100,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	MRT	2.75%	4,482,598	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lender Application Fee		25,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lender Commitment Fee	1.00%	1,631,121	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Community Relations		6,812,619	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Op. Expenses During Construction/Sell-Out	57.0	250,000	250,000	-	-	-	-	-	-	-	-	-	-	-	-
	Operating Expenses		-	2,069,267	258,638	-	-	-	-	-	-	-	-	-	-	-
	Total Expenses		221,540,288	144,309,896	61,250,410	14,855,897	1,093,085	-	-	-	-	-	-	-	-	-
	Total Expenses (Excluding Direct Sales & Marketing)		210,578,440	144,309,896	61,250,410	14,855,897	1,093,085	-	-	-	-	-	-	-	-	-
	Cash		267,886,200	-	-	-	-	-	-	-	-	-	-	-	-	-
	9% Sold		-	53,579,240	187,527,340	26,789,620	-	-	-	-	-	-	-	-	-	-
	Units Sold		0	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
	Total Sales		0	53,579,240	187,527,340	26,789,620	-	-	-	-	-	-	-	-	-	-
	Sales Commissions		0	-2,143,170	-7,401,094	-1,071,585	-	-	-	-	-	-	-	-	-	-
	Closing Legal Expenses		0	-43,000	-21,500	-	-	-	-	-	-	-	-	-	-	-
	Net Sales		0	51,393,070	179,875,746	25,698,535	-	-	-	-	-	-	-	-	-	-
	Current Scenario - Equity Funding of Project Cost before Debt Draw		96,844,113	59,064,240	-	-	-	-	-	-	-	-	-	-	-	-
	Debt Borrowing		47,465,783	-	-	-	-	-	-	-	-	-	-	-	-	-
	Equity Funding		144,309,896	59,064,240	7,204,304	-	-	-	-	-	-	-	-	-	-	-
	Total		144,309,896	203,574,137	210,578,440	210,578,440	210,578,440	210,578,440	210,578,440	210,578,440	210,578,440	210,578,440	210,578,440	210,578,440	210,578,440	210,578,440
	Cumulative		96,844,113	104,535,283	-	-	-	-	-	-	-	-	-	-	-	-
	Debt Beg. Balance		96,844,113	59,064,240	7,204,304	-	-	-	-	-	-	-	-	-	-	-
	Debt Borrowing		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Debt Paydown		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Debt Ending Balance		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Average Balance		96,844,113	104,535,283	-	-	-	-	-	-	-	-	-	-	-	-

Brooklyn Bridge Park Development Analysis

Assumptions and Net Present Value Summary⁽¹⁾

Modified Pier 6 Residential Building Design Alternative, Scheme 2

Con Ed

Assumptions

Number of residential floors	13
Gross Sq Ft Per Floor	9,600
Gross Sq Ft	124,800
Revenue \$ Per Sq Ft	\$ 700
Land Value Per Sq Ft	\$ 70
Annual Ground Rent Per Sq Ft	\$ 3.50

<u>PV of Revenue</u>	\$ 20,025,000
<u>PV of Revenue Per Sq Ft</u>	\$ 160

Pier 6 - Building A and Building B

Assumptions

Gross Sq Ft	395,200
Revenue \$ Per Sq Ft (average)	\$ 695
Land Value Per Sq Ft (average)	\$ 60
Annual Ground Rent Per Sq Ft	\$ 3.50

<u>PV of Revenue</u>	\$ 53,834,000
<u>PV of Revenue Per Sq Ft (average)</u>	\$ 136

Pier 6 - Building 50

Assumptions

Number of residential floors	4
Gross Sq Ft Per Floor	12,500
Gross Sq Ft	50,000
Revenue \$ Per Sq Ft	\$ 600
Land Value Per Sq Ft	\$ -
Annual Ground Rent Per Sq Ft	\$3.50

<u>PV of Revenue</u>	\$ 4,436,000
<u>PV of Revenue Per Sq Ft</u>	\$ 89

Pier 1

Assumptions

Number of residential units	180
Gross Sq Ft	180,000
Revenue \$ Per Sq Ft	\$ 750
Land Value Per Sq Ft	\$ 75
Annual Ground Rent Per Sq Ft	\$ 5.75

<u>PV of Revenue</u>	\$ 24,953,000
<u>PV of Revenue Per Sq Ft</u>	\$ 139

Hotel

Assumptions⁽²⁾

Number of hotel rooms	170
Gross Sq Ft	145,000

<u>PV of Revenue</u>	\$ 22,153,000
<u>PV of Revenue Per Sq Ft</u>	\$ 153

Revenues from MOUs Currently Under Negotiation

<u>PV of Revenue</u>	\$ 80,297,000
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Total	\$ 205,700,000
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⁽¹⁾ 20-year Net Present Value using 7% discount rate.

⁽²⁾ See hotel pro-forma for additional hotel assumptions.

Brooklyn Bridge Park Development Analysis

Net Present Value Summary

Modified Pier 6 Residential Building Design Alternative, Scheme 2

Present Value of Revenue by property - 20 years, 7% Discount Rate	
Con Ed - Upfront payment for land	8,742,000
Con Ed - One-time taxes and fees	3,190,000
Con Ed - Recurring Revenues	8,093,000
Pier 6 Total - Upfront payment for land	18,772,000
Pier 6 Total - One-time taxes and fees	11,489,000
Pier 6 Total- Recurring Revenues	28,009,000
Pier 1 - Upfront payment for land	10,299,000
Pier 1 - One-time taxes and fees	3,614,000
Pier 1 - Recurring Revenues	11,040,000
Hotel - Upfront payment for land	-
Hotel - One-time taxes and fees	2,901,000
Hotel - Recurring Revenues	19,252,000
MOUs Currently Under Negotiation - One-time taxes & fees	6,542,000
MOUs Currently Under Negotiation - Recurring Revenues	73,755,000
Total Value	205,700,000

Present Value of Park Maintenance Budget	(\$196,228,000)
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Brooklyn Bridge Park Development Analysis
Cash Flow Summary (\$ millions)
Modified Pier 6 Residential Building Design Alternative, Scheme 2

	Year 1	Year 5	Year 10	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Endowment at beginning of year	\$0.0	\$47.0	\$67.0	\$43.4	\$13.1	\$10.2	\$7.9	\$6.6	\$7.1
Revenues									
Recurring Fees									
Park Maintenance Fees	3.1	7.3	8.3	10.3	10.5	10.6	11.4	11.6	11.8
Payments in Lieu of Taxes (PILOT)	1.8	4.3	4.4	11.2	12.5	14.3	16.1	17.0	18.2
Total Recurring Fees	4.9	11.6	12.8	21.5	23.0	24.9	27.5	28.7	30.0
Non-Recurring Fees									
Up-front payments for land	27.5	-	-	-	-	-	-	-	-
One-time taxes and fees	19.5	2.3	-	-	-	-	-	-	-
Total Non-Recurring Fees	47.0	2.3	-	-	-	-	-	-	-
Return on Investment	1.2	3.3	2.3	0.8	0.6	0.5	0.4	0.3	0.4
Total Revenues	8.4	14.9	15.1	22.3	23.6	25.4	27.9	29.0	30.4
Expenses									
Park Maintenance Budget	(4.8)	(18.7)	(21.7)	(25.1)	(25.9)	(26.7)	(27.5)	(28.3)	(29.1)
Annual surplus/deficit	47.0	3.6	(3.8)	(6.6)	(2.8)	(2.3)	(1.3)	0.7	1.3
Endowment at end of year	\$47.0	\$50.6	\$63.3	\$36.8	\$10.2	\$7.9	\$6.6	\$7.1	\$9.1

Note: Some numbers may not add due to rounding.

The endowment is at its lowest point in Year 17 after which recurring fees are sufficient to sustain park maintenance and operations.

Components of Park Revenue:

Non-recurring revenues:

Upfront payment for land

Construction PILOT: Estimated at 8% of 50% of hard costs

Mortgage Recording Tax: 2.75% of Senior debt.

Recurring Revenues:

PILOT: Standard calculation with 421-a abatement on new development and J-51 exemption/abatement on conversion.

Park Maintenance fees: \$3.50-\$5.75 per gross square foot.

MOUs currently under negotiation:

Empire Stores and 360 Furman renovation currently under negotiation.

Brooklyn Bridge Park Residential Development Analysis

Assumptions - Pier 6

Drawdown Scenario - Equity Upfront

Square Foot Breakdown and Schedules

	Gross	Saleable	Loss Factor	Units	Sq Ft/Unit	Revenue \$/Sq Ft	Revenue \$/Unit	Gross Revenue
Condos	395,200	335,920	15.0%	380	884	\$695	\$614,601	\$233,548,380
Condos - Building A	197,600	167,960	15.0%	190	884	\$713	\$629,850	\$119,671,500
Condos - Building B	197,600	167,960	15.0%	190	884	\$678	\$599,352	\$113,876,880
Total	395,200	335,920	15.0%					\$233,548,380

Sources	Total	Per GSF	Per RSF	Per RSF	Uses
Debt					Site Acquisition
Senior Debt	\$140,715,968	\$336	\$419	77.5%	Hard Costs
Equity					HC Contingencies
Total Equity	\$40,948,347	\$104	\$122	22.5%	Soft Costs
					SC Contingencies
					Interest Reserve
					Mortgage Recording Tax
					Origination Fee
					Title
					Sales & Marketing
					Operating Expenses
					Legal, Taxes, Insurance & Other
Total Sources:	\$181,664,315	\$460	\$541	100.0%	Total Uses:

Break-even Analysis	Sales	Per GSF	Per RSF
Construction Loan	\$356	\$419	\$412
Construction Loan & Equity	\$460	\$541	\$541
Construction Loan, Equity & Implied Land Value	\$529	\$622	\$622

Lease Assumptions	Date	Payment	Type
Upfront Price per SF	Year 1	\$48	One-Time
Lump Sum Payment		\$18,772,000	
Land Valuation			
Annual Ground Rent		\$1,383,200	Per RSF
Implied Land Value		\$48,679,561	\$3.50
NPV Assumptions			\$123.18
Discount Rate		7.0%	
Rent Escalations		3.0%	13th year, ever 10 thereafter

Cost Analysis	Total	Per GSF	Per RSF
Const/Sell-out Lease Pmts	2,628,080	7	8
Lump Sum Payment	18,772,000	48	56
Total Lease Payments	\$21,400,080	\$54	\$64
Total Hard Costs	\$123,812,188	\$313	\$369
Total Soft Costs	10,791,780	27	32
Other Expenses	25,660,267	65	76
Total Project Costs	\$181,664,315	\$460	\$541

Timing	Year
Construction Begin	1
Construction Duration (in Years)	2
Construction Completion	2

Debt Assumptions	
Senior Debt	
Construction Loan	80.0%
LTC	\$140,715,968
Amount	Yes
Fixed Interest Rate?	6.50%
Total Fixed Interest Rate	Equity Upfront
Drawdown Schedule	1.00%
Origination Fee	2.75%
Mortgage Recording Tax	

Condominium Assumptions	
Hard Costs (PGSF)	\$313
Operating Exp. (PRSSF)	\$7.00
Brokerage	4.00%
Per Unit Closing Costs	\$500
Sales Assumptions	% of Units
Year 2	20.0%
Year 3	70.0%
Year 4	10.0%
Total	100.0%

Development Assumptions	
Developer Fee (% of Hard/Soft Costs)	3.0%
General Conditions (% of Hard Costs)	10.0%
CM Contingency (% of Hard & Fees)	5.0%
Owners Contingency (% of Hard & Fees)	0.0%
Soft Cost Contingency (% of Soft Costs)	20.0%

Tax Assumptions	
PILOT (Pier 6 Land)	\$395,200
PILOT (excl. Land)	\$7.00
Abatement - First 11 years	100.0%
Abatement - 12th year	80.0%
Abatement - 13th year	60.0%
Abatement - 14th year	40.0%
Abatement - 15th year	20.0%
Thereafter	0.0%
Escalation	1.5%

Brooklyn Bridge Park Residential Development Analysis Cash Flow Summary - Pier 6

Drawdown Scenario - Equity Upfront

Developer Unlevered Cashflow

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	TOTALS
Revenues																
Condo Sales	0	46,709,576	165,483,866	25,354,538	0	0	0	0	0	0	0	0	0	0	0	\$253,548,380
Percent Absorbed		20%	70%	10%												100.0%
Number Units Absorbed		76	266	38												330
Expenses																
Sales Commission	0	-1,868,387	-6,539,355	-934,194	0	0	0	0	0	0	0	0	0	0	0	-9,341,935
Condo Closing Costs	0	-38,000	-135,000	-19,000	0	0	0	0	0	0	0	0	0	0	0	-190,000
Net Revenue	\$0	\$4,803,289	\$156,811,511	\$22,401,644	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$224,016,745
Expenses																
Ground Rent Paid by Developer	20,155,200	1,106,560	138,320	0	0	0	0	0	0	0	0	0	0	0	0	\$21,400,080
Insurance and Taxes	3,566,107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,566,107
Permits & Fees	300,895	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300,895
Legal	775,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	775,000
Consultants/Soft Costs	6,025,410	2,967,759	0	0	0	0	0	0	0	0	0	0	0	0	0	8,993,150
Hard Costs	82,954,166	40,858,022	0	0	0	0	0	0	0	0	0	0	0	0	0	123,812,188
Soft Cost Contingency	1,205,682	593,548	0	0	0	0	0	0	0	0	0	0	0	0	0	1,798,630
Marketing & Sales - Indirect	1,237,865	609,695	0	0	0	0	0	0	0	0	0	0	0	0	0	1,847,560
Community Relations	250,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250,000
Op. Expenses During Construction/Sell-Out	0	1,881,152	253,144	0	0	0	0	0	0	0	0	0	0	0	0	2,116,296
Net Cash Flow Unlevered	(\$116,269,725)	(\$5,213,427)	\$156,638,047	\$22,401,644	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$59,556,539

Developer Levered Cashflow

Leverage Expenses																
Financing Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Costs	(\$116,269,725)	(\$48,016,716)	(\$373,464)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$164,659,905)
Debt Balances																
Beginning of Period Balance	\$0	(\$81,215,733)	(\$89,708,183)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$129,605,913)
Senior Debt Funding		-81,215,733	-48,016,716	0	0	0	0	0	0	0	0	0	0	0	0	-111,110,055
Interest	0	-5,279,023	-5,831,032	0	0	0	0	0	0	0	0	0	0	0	0	140,715,968
Debt Repayment	0	44,803,289	95,912,679	0	0	0	0	0	0	0	0	0	0	0	0	140,715,968
End of Period Balance	\$0	(\$81,215,733)	(\$89,708,183)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
Equity Contributions																
Net Cash Flow Levered	\$0	(\$40,948,347)	\$0	\$60,898,832	\$22,401,644	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$40,948,347)
	\$0	(\$40,948,347)	\$0	\$22,401,644	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$42,552,190

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Pier 6

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
1	Land Acquisition															
	Lease Payments	2,628,080														
	Lump Sum Payment	\$18,772,000														
		21,400,080														
2	Insurance and Taxes															
	GL Insurance	2,228,619														
	Builder's Risk	347,088														
	Taxes during Construction	750,490														
3	Permits & Fees															
	Building Permit	395,200														
	Other Fees	257,030														
4	Legal															
	Zoning	200,000														
	Architects' Contract	25,000														
	Construction Contract	25,000														
	Financing Developer Legal	150,000														
	Financing Lender Legal	100,000														
	Co-op AG Approval	75,000														
	Permitting	200,000														
		775,000														
5	Consultants/Soft Costs															
	Architects	395,200														
	Landscaping Architect	2,171,600														
	Structural Engineering	336,424														
	Mechanical Engineering	395,200														
	Civil Engineering	395,200														
	Electrical Engineering	395,200														
	Planning Consultants	47,424														
	Energy Modeling	20,000														
	Commissioning	150,000														
	Zoning Consultants	125,000														
	Survey	100,000														
	Geotechnical/Soils	75,000														
	Interior Design	100,000														
	Miscellaneous Consultants	100,000														
	Renderings/Blue Prints/Drawings	334,985														
	Model	75,000														
	Other Consultant Reimbursables	100,000														
	Purchase Maintenance Equipment	197,600														
	Testing & Inspections	197,600														
	Expediting	200,000														
	Accounting	200,000														
	Developer Fee	3,868,117														
	Developer Overhead															
		8,993,150														
		6,032,410	2,967,759													
6	Hard Costs															
	Preconstruction Services	150,000														
	Hard Cost	99,195,200														
	Sub-Total	99,345,200														
	General Conditions	9,954,520														
	Bond Premiums	819,298														
	CM Construction Contingency	5,204,966														
	CM Fee	2,312,086														
		117,916,369														
	Escalation	5,00%														
	Owners Hard Cost Contingency	0.00%														
		123,812,188	82,954,166	40,858,022												

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Pier 6

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
7 Soft Cost Contingency	20%	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630	1,798,630
8 Construction Interest	6.5%	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055	11,110,055
9 Marketing & Sales - Indirect															
Marketing Brochures & Advertising	54.50	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920
Sales Office - Filing Out Space	50.25	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920
Model Apartments	50.75	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920	335,920
10 Marketing & Sales - Direct															
Sales Committees	4.0%	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935	9,241,935
Closing Legal Expenses	5.00%	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000	190,000
11 Financing Costs															
Title & Recording	0.35%	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Appraisal/Market Study		100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Marketing Application Fee	2.75%	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689	3,869,689
Lease Application Fee		25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Lease Commitment Fee	1.00%	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160	1,407,160
12 Community Relations															
Op. Expenses During Construction/Sell-Out	57.0	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440	\$2,351,440
Operating Expenses		2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296	2,116,296
Total Expenses		191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250	191,196,250
Total Expenses (Excluding Direct Sales & Marketing)		181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315
Condo		233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380	233,548,380
% Sold		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Units Sold		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Sales		0	46,709,676	163,483,866	23,354,838	0	0	0	0	0	0	0	0	0	0
Sales Commissions		0	-1,868,387	-6,530,335	-924,194	0	0	0	0	0	0	0	0	0	0
Closing Legal Expenses		0	-38,000	-133,000	-19,000	0	0	0	0	0	0	0	0	0	0
Net Sales		0	44,803,289	156,811,531	22,401,644	0	0	0	0	0	0	0	0	0	0
Current Scenario - Equity Funding of Project Cost before Debt Draw															
Debt Borrowing		81,215,733	35,295,739	6,204,496											
Equity Funding		40,945,347													
Total		122,164,080	35,295,739	6,204,496											
Cumulative		122,164,080	175,459,819	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315	181,664,315
Debt Beg. Balance			81,215,733	89,708,183											
Debt Borrowing			53,295,739	6,204,496											
Debt Paydown			-44,803,289	-92,912,679											
Debt Ending Balance		81,215,733	89,708,183												
Average Balance															

Brooklyn Bridge Park Residential Development Analysis

Assumptions - Building 50

Drawdown Scenario - Equity Upfront

Square Foot Breakdown and Schedules									
	Gross		Saleable	Loss Factor	15.0%	Units	Sq Ft/Unit	Revenue	
	\$							\$/Sq Ft	\$/Unit
Condos	50,000		42,500	15.0%		50	850	\$600	\$510,000
Total	50,000		42,500	15.0%					\$25,500,000

Sources	Total	Per GSF	Per RSSE	Uses
Debt				Site Acquisition
Senior Debt	\$16,778,624	\$336	\$395 77.5%	Hard Costs
Equity				HC Contingencies
Total Equity	\$4,882,580	\$98	\$115 22.5%	Soft Costs
				SC Contingencies
				Interest Reserve
				Mortgage Recording Tax
				Origination Fee
				Title
				Sales & Marketing
				Operating Expenses
				Legal, Taxes, Insurance & Other
Total Sources:	\$21,661,204	\$433	\$510 100.0%	Total Uses:

Breakdown Analysis	Sales		Per RSSE
	Per GSF	Per RSSE	
Construction Loan	\$336	\$395	
Construction Loan & Equity	\$433	\$510	
Construction Loan, Equity & Implied Land Value	\$470	\$553	

Lease Assumptions		
Upfront Price per SF	Date	Type
Lump Sum Payment	Year 1	One-Time
Land Valuation		
Annual Ground Rent		Per GSF
Implied Land Value		Per RSSE
NPV Assumptions		
Discount Rate	7.0%	
Rent Escalations	3.0%	15th year, ever 10 thereafter

Debt Assumptions			
Senior Debt			
Construction Loan			
LTC			80.0%
Amount			\$16,778,624
Fixed Interest Rate?			Yes
Total Fixed Interest Rate			6.50%
Drawdown Schedule			Equity Upfront
Origination Fee			1.00%
Mortgage Recording Tax			2.75%

Condominium Assumptions			
Hard Costs (PGSF)			\$315
Operating Exp. (PRSSE)			\$7.00
Brokerage			4.00%
Per Unit Closing Costs			\$500
Sales Assumptions			
% of Units			# of Units
Year 2	20.0%		10
Year 3	70.0%		35
Year 4	10.0%		5
Total	100.0%		50

Development Assumptions			
Developer Fee (% of Hard/Soft Costs)			3.0%
General Conditions (% of Hard Costs)			10.0%
CM Contingency (% of Hard & Fees)			5.0%
Owners Contingency (% of Hard & Fees)			0.0%
Soft Cost Contingency (% of Soft Costs)			20.0%

Tax Assumptions	
PLOT (for construction schedule)	\$ 47,200
Abatement - first 10 years	100.0%
Abatement - 11th year	80.0%
Abatement - 12th year	60.0%
Abatement - 13th year	40.0%
Abatement - 14th year	20.0%
Thereafter	0.0%
Escalation	1.5%

Brooklyn Bridge Park Residential Development Analysis

Cash Flow Summary - Building 50

Drawdown Scenario - Equity Upfront

Developer Unlevered Cashflow

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	TOTALS
REVENUE																
Condo Sales	0	5,100,000	17,850,000	2,550,000	0	0	0	0	0	0	0	0	0	0	0	\$25,500,000
Percent Absorbed		20%	70%	10%												100.0%
Number Units Absorbed		10	35	5												\$50
Sales Commission	0	-204,000	-714,000	-102,000	0	0	0	0	0	0	0	0	0	0	0	-1,020,000
Condo Closing Costs	0	-5,000	-17,500	-2,500	0	0	0	0	0	0	0	0	0	0	0	-25,000
Net Revenue	\$0	\$4,891,000	\$17,136,000	\$2,448,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,455,000
EXPENSES																
Ground Rent Paid by Developer	175,000	140,000	17,500	0	0	0	0	0	0	0	0	0	0	0	0	\$552,500
Insurance and Taxes	419,179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	419,179
Permits & Fees	62,765	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62,765
Legal	375,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	375,000
Commissions/Sell Costs	1,118,229	550,770	0	0	0	0	0	0	0	0	0	0	0	0	0	1,668,999
Hard Costs	10,562,868	5,202,606	0	0	0	0	0	0	0	0	0	0	0	0	0	15,765,474
Soft Costs Contingency	223,646	110,154	0	0	0	0	0	0	0	0	0	0	0	0	0	333,800
Marketing & Sales - Indirect	156,613	77,138	0	0	0	0	0	0	0	0	0	0	0	0	0	233,750
Community Relations	100,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100,000
Op. Expenses During Construction/Sell-Out	0	238,000	22,750	0	0	0	0	0	0	0	0	0	0	0	0	260,750
Net Cash Flow Unlevered	(\$13,193,299)	(\$1,427,667)	\$17,071,250	\$2,448,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,855,784

Developer Levered Cashflow

Leverage Expenses																
Financing Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Costs	(\$13,193,299)	(\$6,318,667)	(\$47,250)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$19,539,216)
Debt Balances																
Beginning of Period Balance	\$0	(\$9,098,643)	(\$11,117,722)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$15,464,560)
Senior Debt Funding	9,098,643	-6,318,667	-47,250	0	0	0	0	0	0	0	0	0	0	0	0	-1,314,064
Interest	0	-591,412	-772,652	0	0	0	0	0	0	0	0	0	0	0	0	1,678,924
Debt Repayment	0	4,891,000	11,887,604	0	0	0	0	0	0	0	0	0	0	0	0	16,778,604
End of Period Balance	\$0	(\$9,098,643)	(\$11,117,722)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0
Equity Contributions																
Equity Contributions	\$0	-4,882,580	0	0	0	0	0	0	0	0	0	0	0	0	0	(\$4,882,580)
Net Cash Flow Levered	\$0	(\$4,882,580)	\$5,230,876	\$2,448,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,793,796

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Building 50

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
1 Land Acquisition															
Lease Payments															
Lump Sum Payment			175,000	0	0	0	0	0	0	0	0	0	0	0	0
			332,500												
2 Insurance and Taxes															
GL Insurance															
Builder's Risk															
Taxes during Construction															
			332,500												
3 Permits & Fees															
Building Permit															
Other Fees															
			419,179	419,179											
4 Legal															
Zoning															
Architects Contract															
Construction Contract															
Financing Developer Legal															
Financing Lenders Legal															
Co-op AG Approval															
Permitting															
			61,765	61,765											
5 Consultants/Soft Costs															
Total			375,000	375,000											
Architects															
Landscape Architect															
Structural Engineering															
Mechanical Engineering															
Civil Engineering															
Electrical Engineering															
Plumbing Engineering															
Energy Modeling															
Commissioning															
Survey															
Zoning Consultants															
Geotechnical/Soils															
Interior Design															
Miscellaneous Consultants															
Renting/Blue Print Drawings															
Marketing															
Other Consultant Reimbursables															
Purchase Maintenance Equipment															
Testing & Inspections															
Expediting															
Accounting															
Developer Fee															
Developer Overhead															
			1,668,999	1,118,229	550,770										
6 Hard Costs															
Procurement Services															
Hard Cost															
Sub-Total															
General Conditions															
Bond Premiums															
CM Construction Contingency															
CM Fee															
Escalation															
Owners Hard Cost Contingency															
			15,765,474	10,562,368	5,202,606										

Brooklyn Bridge Park Residential Development Analysis Draw Schedule - Building 50

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
7	Set Cost Contingency	20%	333,800	333,800	223,646	110,154	-	-	-	-	-	-	-	-	-	-
8	Construction Interest	6.5%	1,314,064	1,314,064	722,652	-	-	-	-	-	-	-	-	-	-	-
9	Marketing & Sales - Halfway	54.0%	42,500	42,500	-	-	-	-	-	-	-	-	-	-	-	-
	Marketing, Brokering & Advertising	50.3%	42,500	42,500	-	-	-	-	-	-	-	-	-	-	-	-
	Sales Office - Fitting Out Space	50.75%	42,500	42,500	-	-	-	-	-	-	-	-	-	-	-	-
	Model Apartments															
10	Marketing & Sales - Direct	4.0%	156,613	77,138	-	-	-	-	-	-	-	-	-	-	-	-
	Sales Commissions	55.0%	204,000	204,000	714,600	102,000	-	-	-	-	-	-	-	-	-	-
	Closing Legal Expenses		25,000	25,000	17,500	2,500	-	-	-	-	-	-	-	-	-	-
11	Financing Costs															
	Title & Recording	0.35%	58,725	-	-	-	-	-	-	-	-	-	-	-	-	-
	Appraisal/Market Study		75,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	MRT	2.75%	461,412	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lender Application Fee		25,000	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lender Commitment Fee	1.00%	167,786	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Community Relations		787,924	787,924	-	-	-	-	-	-	-	-	-	-	-	-
13	Op. Expenses During Construction/Sell Out	57.0	100,000	100,000	-	-	-	-	-	-	-	-	-	-	-	-
	Operating Expenses		238,300	238,300	29,750	-	-	-	-	-	-	-	-	-	-	-
	Total Expenses		22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204	22,706,204
	Total Expenses (Excluding Direct Sales & Marketing)		21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204
	Condo		25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000	25,500,000
	% Sold		0.0%	30.0%	50.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Units Sold		0	10	45	50	50	50	50	50	50	50	50	50	50	50
	Total Sales		0	5,100,000	17,850,000	2,550,000	0	0	0	0	0	0	0	0	0	0
	Sales Commissions		0	-204,000	-714,600	-102,000	0	0	0	0	0	0	0	0	0	0
	Closing Legal Expenses		0	-5,000	-17,500	-2,500	0	0	0	0	0	0	0	0	0	0
	Net Sales		0	4,891,000	17,118,500	2,445,500	0	0	0	0	0	0	0	0	0	0
	Current Scenario - Equity Funding of Project Cost before Debt Draw		9,098,643	6,910,079	769,902	-	-	-	-	-	-	-	-	-	-	-
	Debt Borrowing		4,882,580	769,902	769,902	-	-	-	-	-	-	-	-	-	-	-
	Equity Funding		13,981,223	6,910,079	769,902	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204
	Total		13,981,223	20,891,302	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204	21,661,204
	Cumulative															
	Debt Beg. Balance		9,098,643	11,117,722	-	-	-	-	-	-	-	-	-	-	-	-
	Debt Borrowing		6,910,079	769,902	-	-	-	-	-	-	-	-	-	-	-	-
	Debt Paydown		(4,882,580)	(11,887,634)	-	-	-	-	-	-	-	-	-	-	-	-
	Debt Ending Balance		9,098,643	11,117,722	-	-	-	-	-	-	-	-	-	-	-	-
	Average Balance															



Brooklyn Bridge Park

Master Plan

Maintenance and Operations Budget
February 2005

Brooklyn Bridge Park Development Corporation

Michael Van Valkenburgh Associates, Inc., Landscape Architects, PC

Mathews Nielsen Landscape Architects

The Assignment

To establish a comprehensive operating and capital budget for Brooklyn Bridge Park operations and maintenance, the Team:

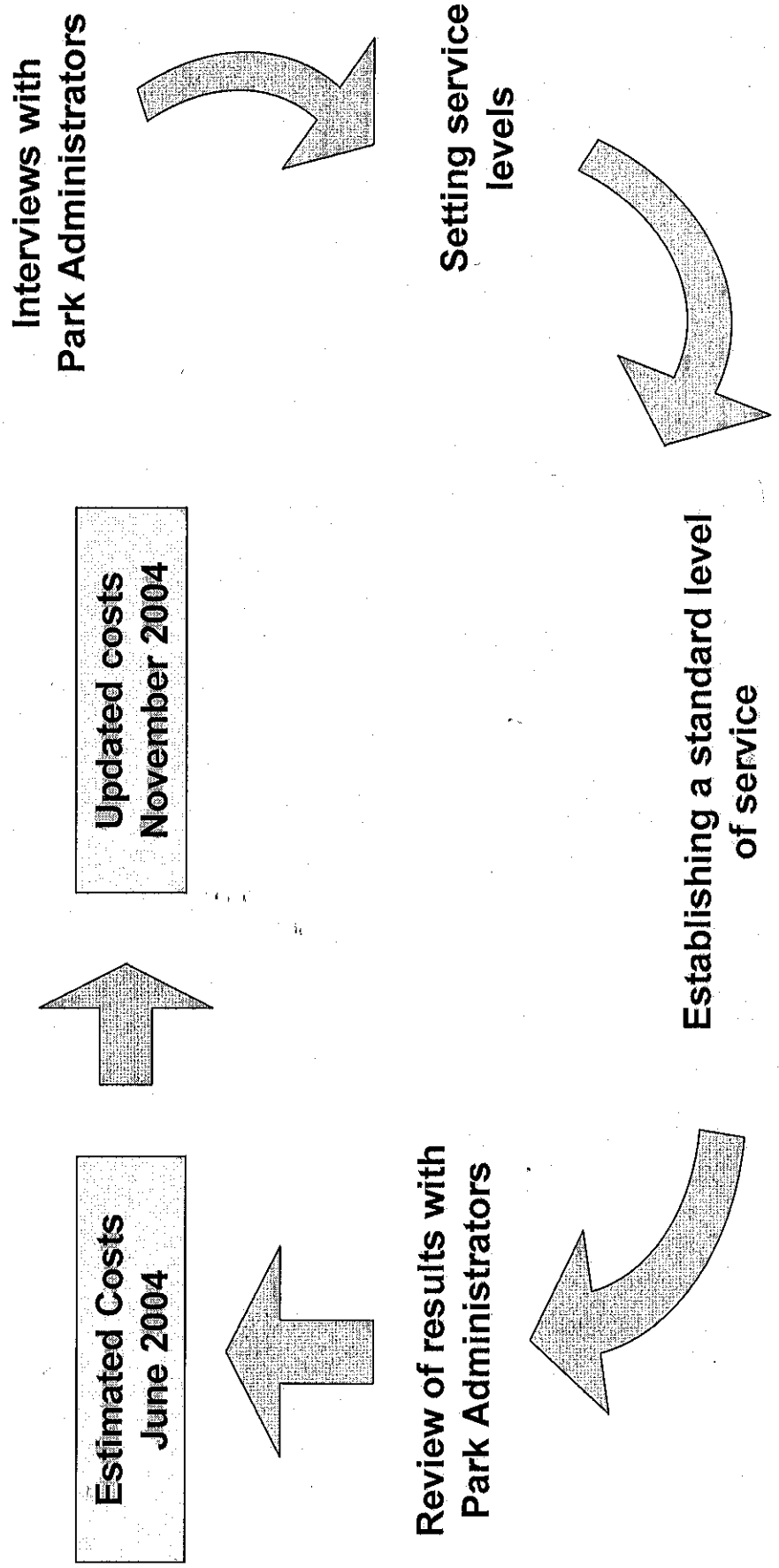
Employed standard budget categories to define all costs required to meet high standards of excellence

Compared those costs calculated with those estimated by the LDC in its 2000 Plan

Updated June 2004 calculations based on refinement of park plan in November 2004

Methodology

Estimated costs are derived from applying “comparable” cost structures projected or incurred by New York City and State parks to the Master Plan assuming 2004 dollars.

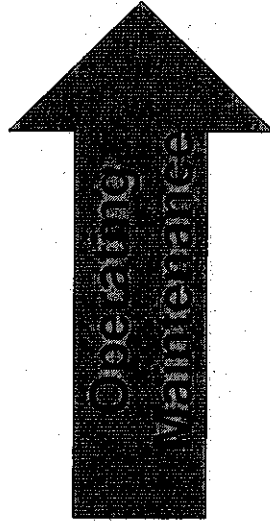


Summary Park Comparisons

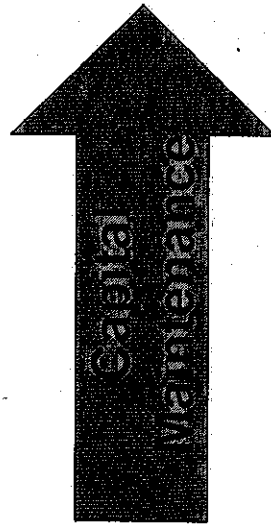
Park	Size	Annual M&O budget	Cost per Acre
Central Park	843 ac	\$22,107,000	\$13,200
Hudson River Park	92 ac	\$17,100,000	\$185,200
Battery Park City	35 ac	\$6,600,000	\$212,000
Riverbank State Park	28 ac	\$8,325,000	\$297,300
Bryant Park	5 ac	\$2,900,000	\$580,000
Brooklyn Bridge Park	80 ac	\$15,200,000	\$190,000

Methodology

The maintenance costs were projected for operating maintenance and capital maintenance budgets using standard public sector definitions.



Necessary repairs and preventative maintenance performed on a routine basis usually by in house staff: graffiti removal, cleaning catch basins, bench slat repair, changing light bulbs, annual replacement of plantings, etc.



Major repair/replacement usually bid out to obtain specialized crews and equipment, i.e. replace roof, light poles, mechanical system overhaul, resurfacing of asphalt pavement, major tree replacements, pile replacement, etc.

Results

A comparison of the June and November 2004 for capital maintenance and operating is:

JUNE	
Operation expenditures	\$9,740,000
Capital maintenance expenditures	\$5,660,000
Total	\$15,400,000

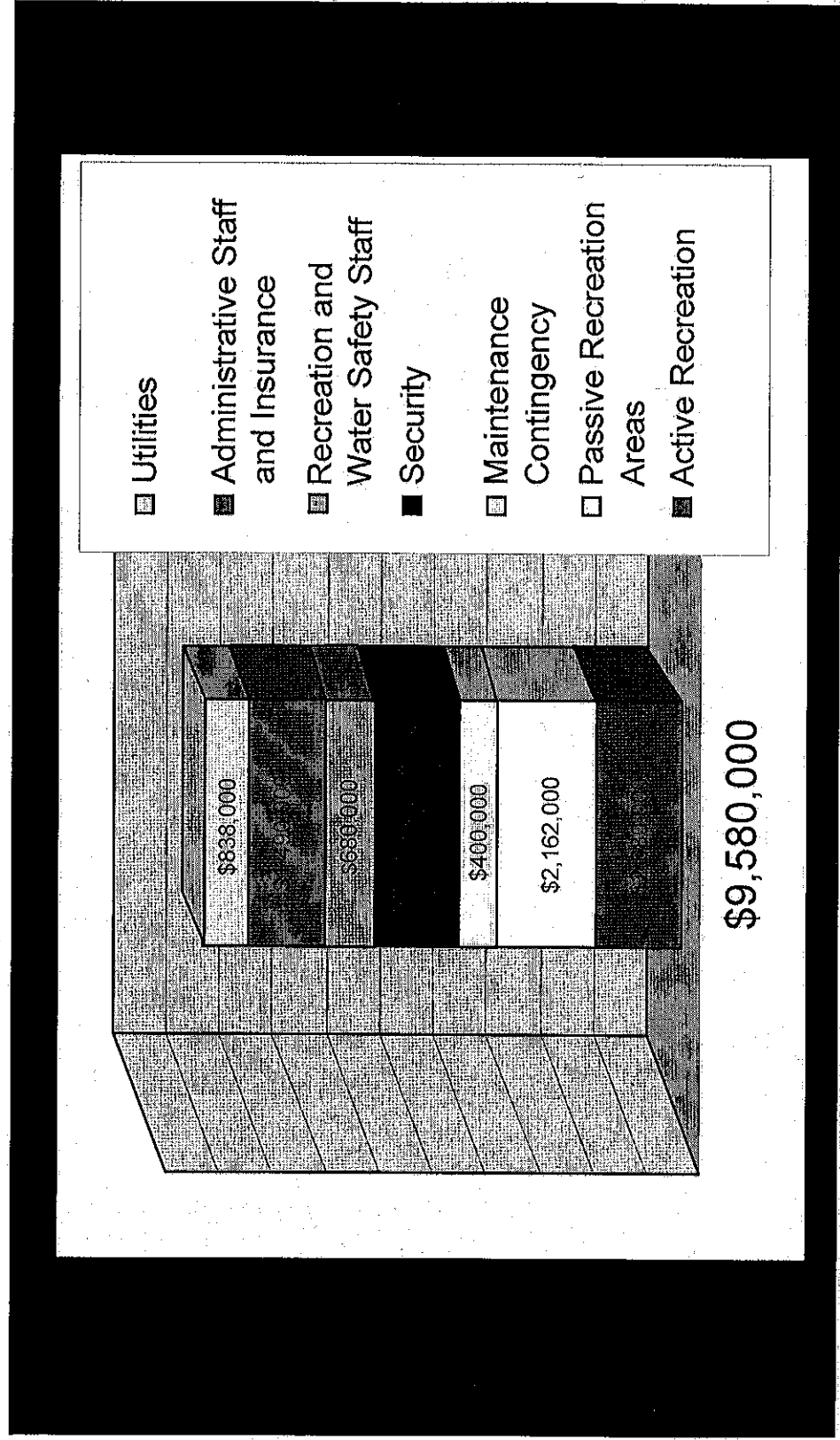
NOVEMBER	
Operation expenditures	\$9,680,000
Capital maintenance expenditures	\$5,620,000
Total	\$15,200,000

Results: Comparison of June and November 2004 Budgets

Maintenance Category	June 2004	November 2004	Increase (Decrease)
Operating Expenditures	\$9,740,000	\$9,580,000	\$(160,000)
•Utilities	\$774,000	\$838,000	\$64,000
•Administrative staff	\$1,290,000	\$1,290,000	\$0
•Recreation staff	\$270,000	\$680,000	\$410,000
•Security	\$1,930,000	\$1,930,000	\$0
•Maintenance contingency	\$460,000	\$400,000	\$(60,000)
•Passive recreation areas	\$1,676,000	\$2,162,000	\$486,000
•Active recreation and hardscape areas	\$2,360,000	\$2,080,000	\$(280,000)
•Pool	\$980,000	\$0	\$(980,000)
•Park Insurance	\$0	\$200,000	\$200,000
Capital Maintenance Costs	\$5,660,000	\$5,620,000	\$(40,000)
•Marine Structure maintenance	\$3,600,000	\$3,600,000	\$0
•Capital maintenance	\$1,800,000	\$1,800,000	\$0
•Vehicle replacement	\$240,000	\$200,000	\$(40,000)
SUMMARY	\$15,400,000	\$15,200,000	\$(200,000)

Results

The park's operating maintenance is estimated to cost \$9,580,000 and is comprised of these basic budgetary categories:



Results

Passive Recreation Areas Include diversely planted intimate landscapes that accommodate picnics, viewing, sunbathing or sitting in the shade protected from wind. Tasks include inspections by a horticulturalist, weeding, pruning, deadheading, mulching and monitoring of drip irrigation system.

Total 12 acres

Active Recreation Areas Include wide open lawns used for pick-up sports, performances and events. Tasks include lawn care, overseeding, aeration, mowing, edging at plant beds and spray head irrigation maintenance. Quantity of trees and shrubs is minimal.

Total 9 acres

Results

The cost estimates are driven by detailed application of actual standards to the physical realities of this park. For example:

❖ **Playgrounds:** Rake sand, maintain water play features, inspect and repair play equipment for an annual cost of \$64,000.

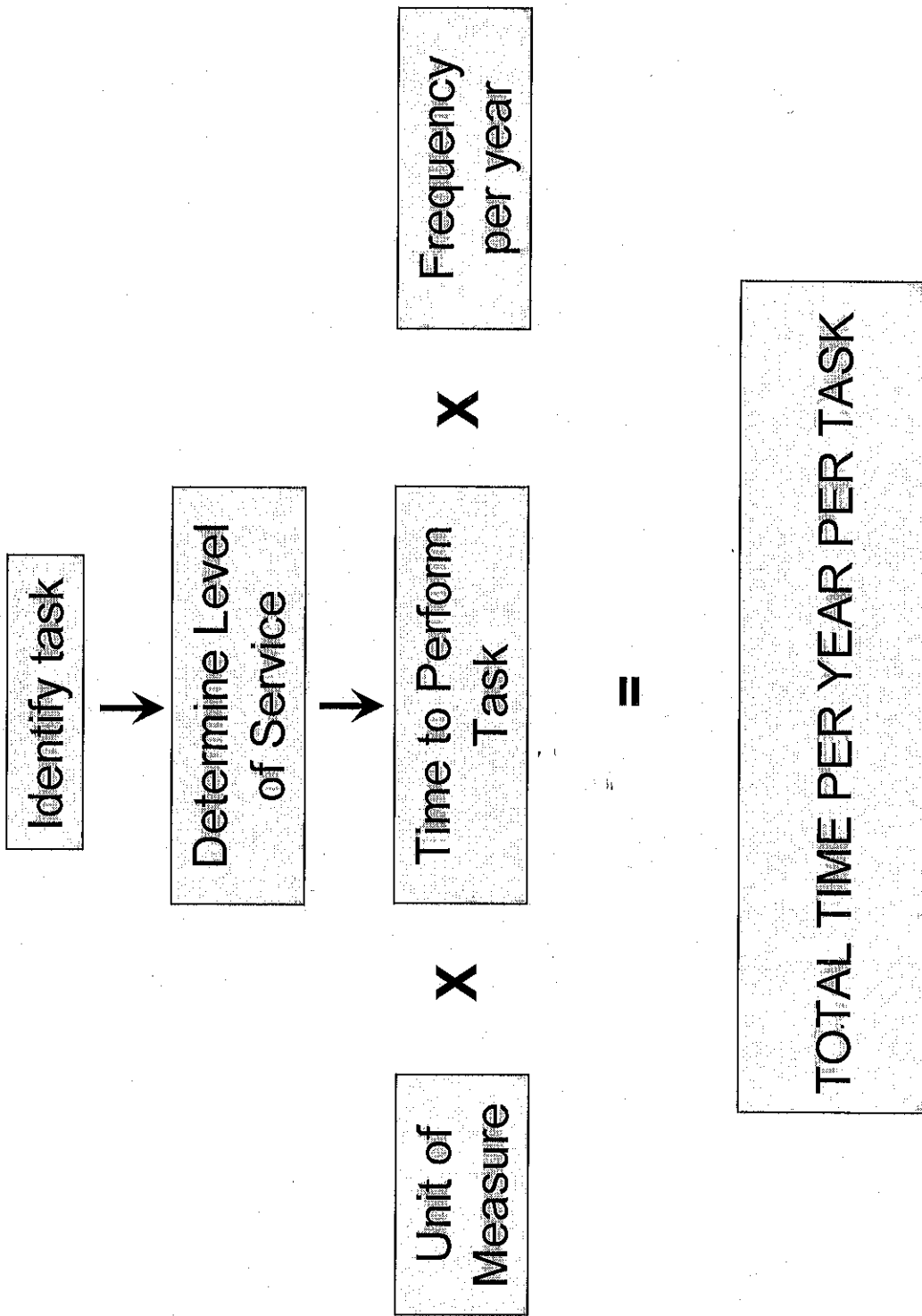
❖ **Trash Pickup:** Every day in summer and once every three days in the winter for an annual cost of \$223,000.

❖ **Lawn Mowing:** Once every five days for active lawn areas (9 acres) for an annual cost of \$395,000.

❖ **Park Lighting:** Includes power requirements for hardscape areas, covered courts and indoor park maintenance facilities requiring \$475,000 annually.

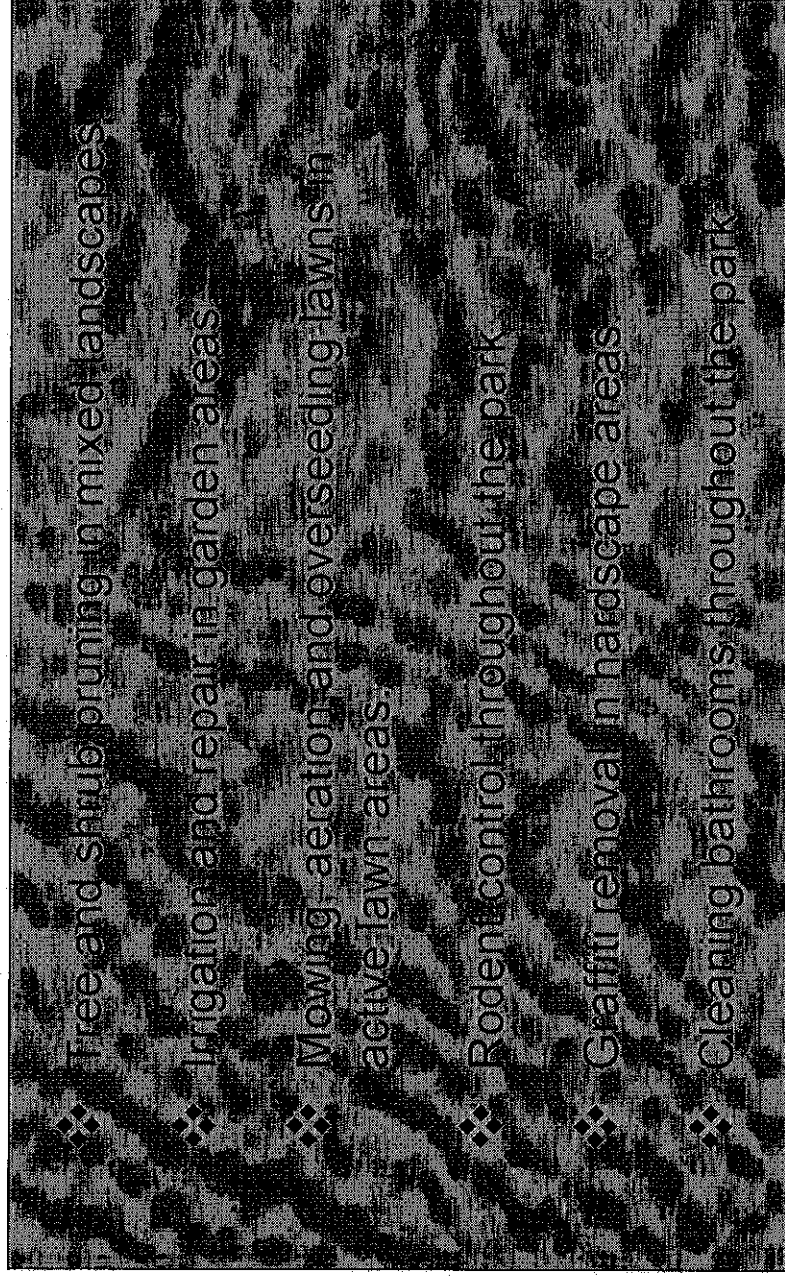
❖ **Public Restrooms:** Includes four restrooms, cleaning performed three times daily between 10 am and 8 pm. In winter, restrooms only open and cleaned on the weekends for an annual cost of \$139,000. Assumes additional restrooms in development parcels.

Process



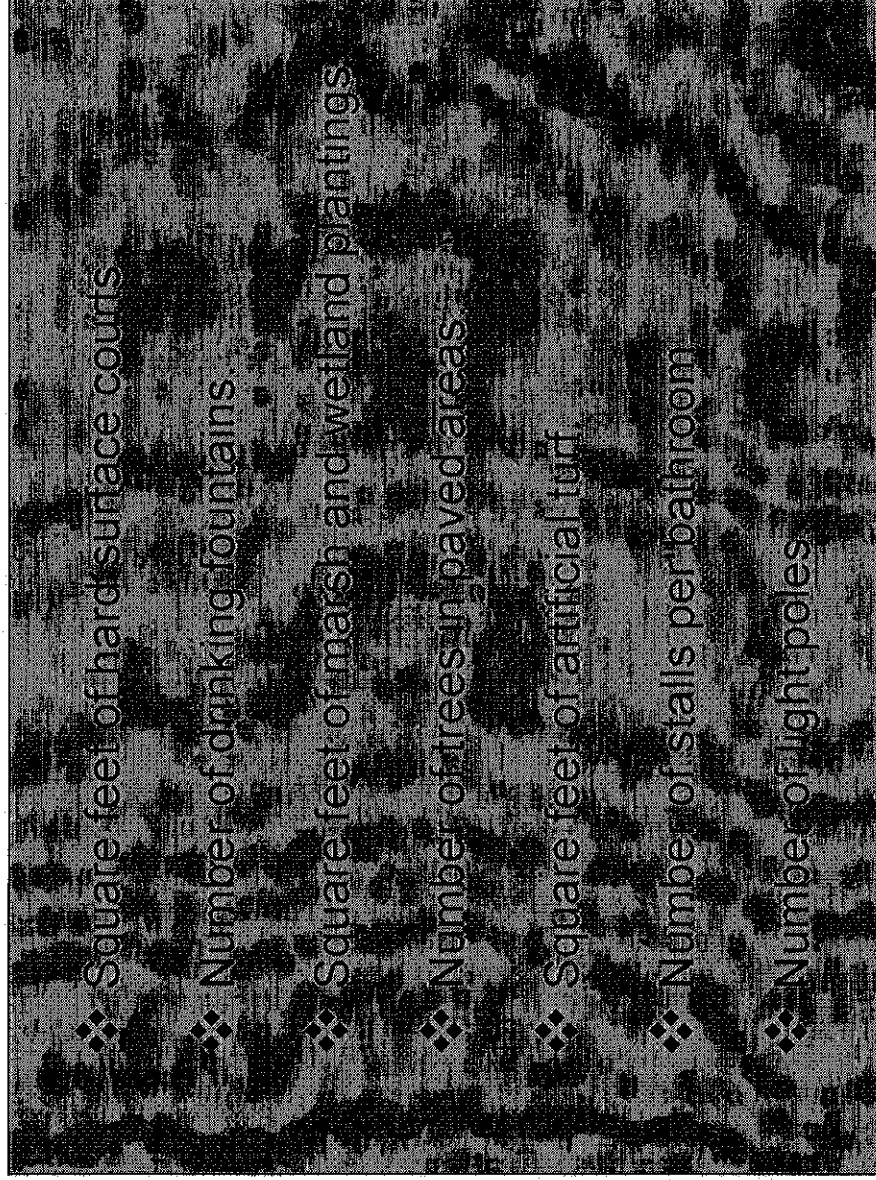
Process

Maintenance costs for park areas are determined by identifying each maintenance task within an area type. For example



Process

Each type of landscape or hardscape is then calculated as a unit of measure.
For example



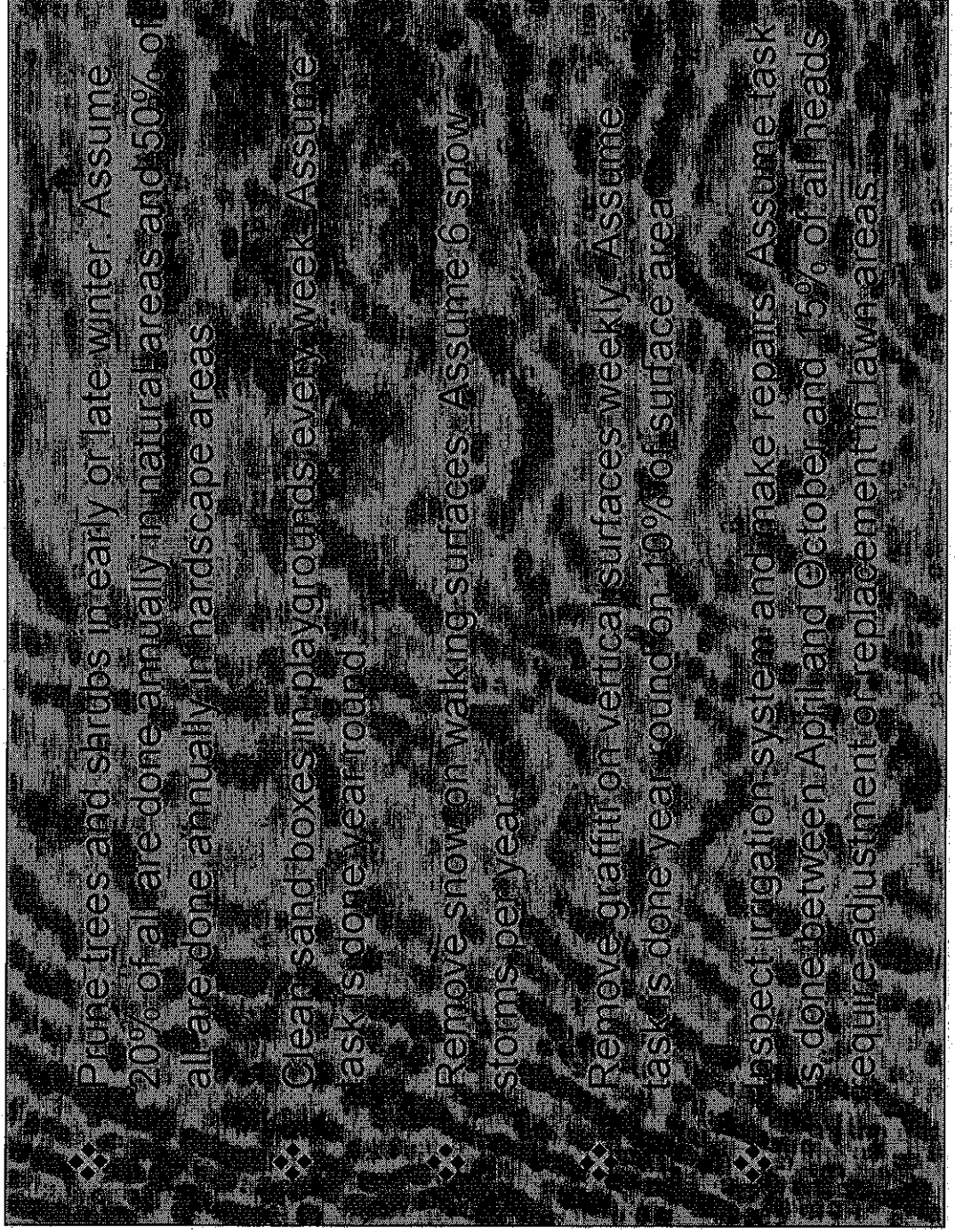
Process

Then, the time to complete each task is quantified per unit of measure. For example, one person can:

- ❖ Snowblow 1000 square feet in 4 minutes
- ❖ Pick up trash in 1000 square feet in 12 minutes
- ❖ Mow 1000 square feet of lawn in 15 minutes
- ❖ Rake and groom 1000 square feet of artificial turf in 30 minutes
- ❖ Prune a tree from a truck in 45 minutes
- ❖ Clean a 12 stall bathroom in 60 minutes including sinks and floor

Process

Then, calculate the frequency of each task per week, month and year based on park usage, season, type of task and level of service desired.

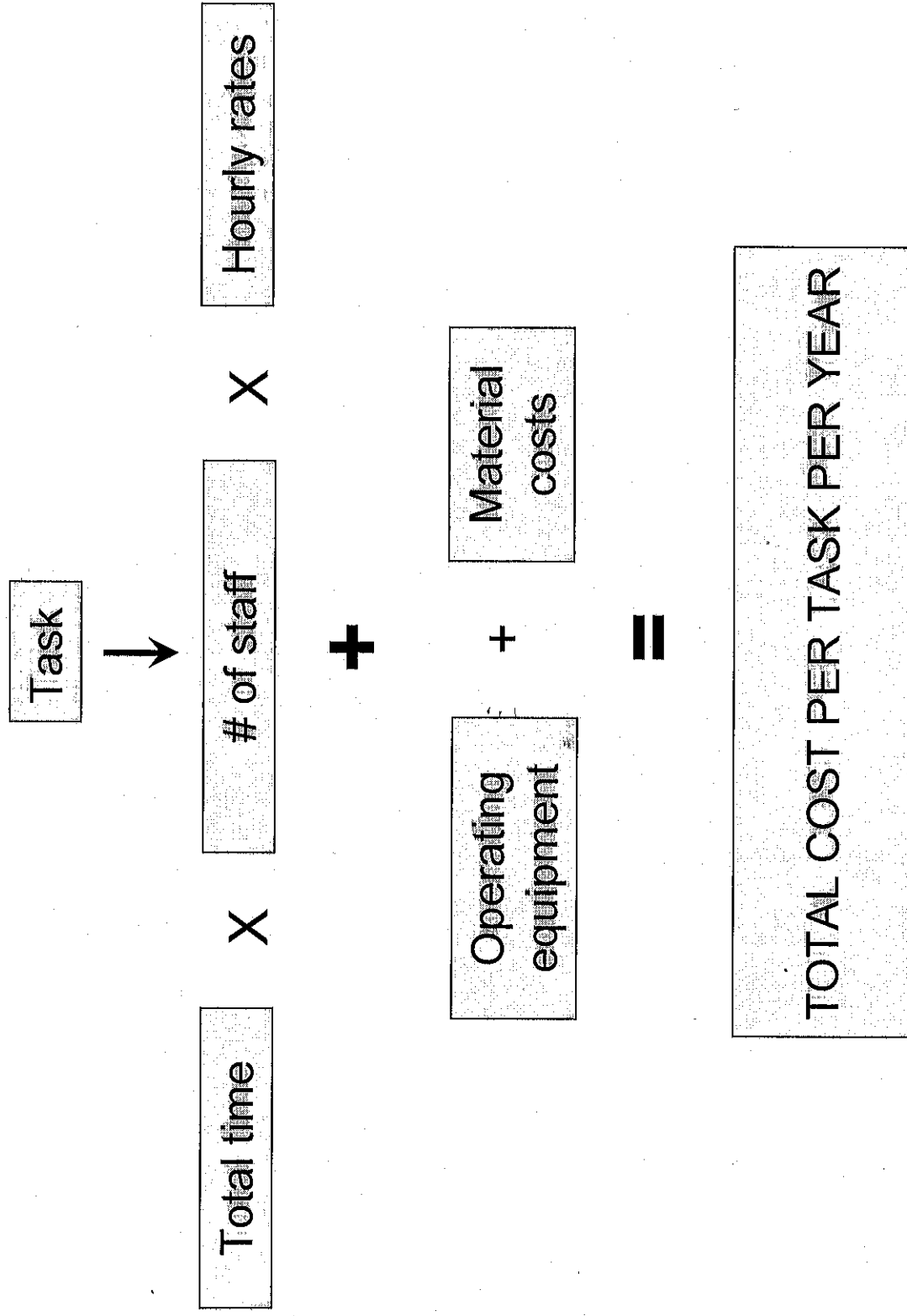


Process

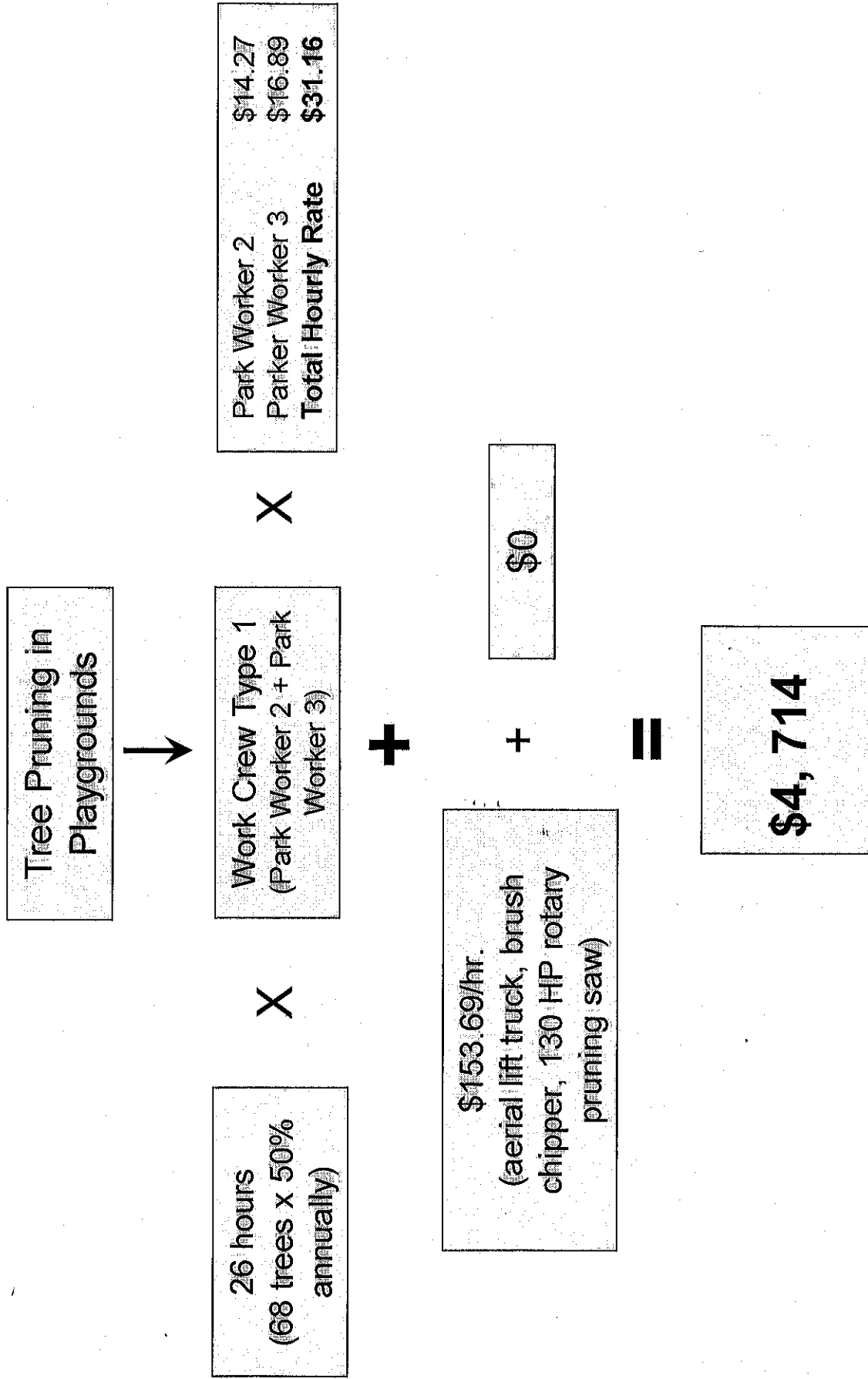
To compute costs for each task:

- ❖ Identify skill level required to perform task
- ❖ Establish hourly rate for skill level
- ❖ Calculate how many people are required to perform a task
- ❖ Identify if task requires equipment or materials
- ❖ Attribute cost to operate equipment or purchase material

Process



Process



Example

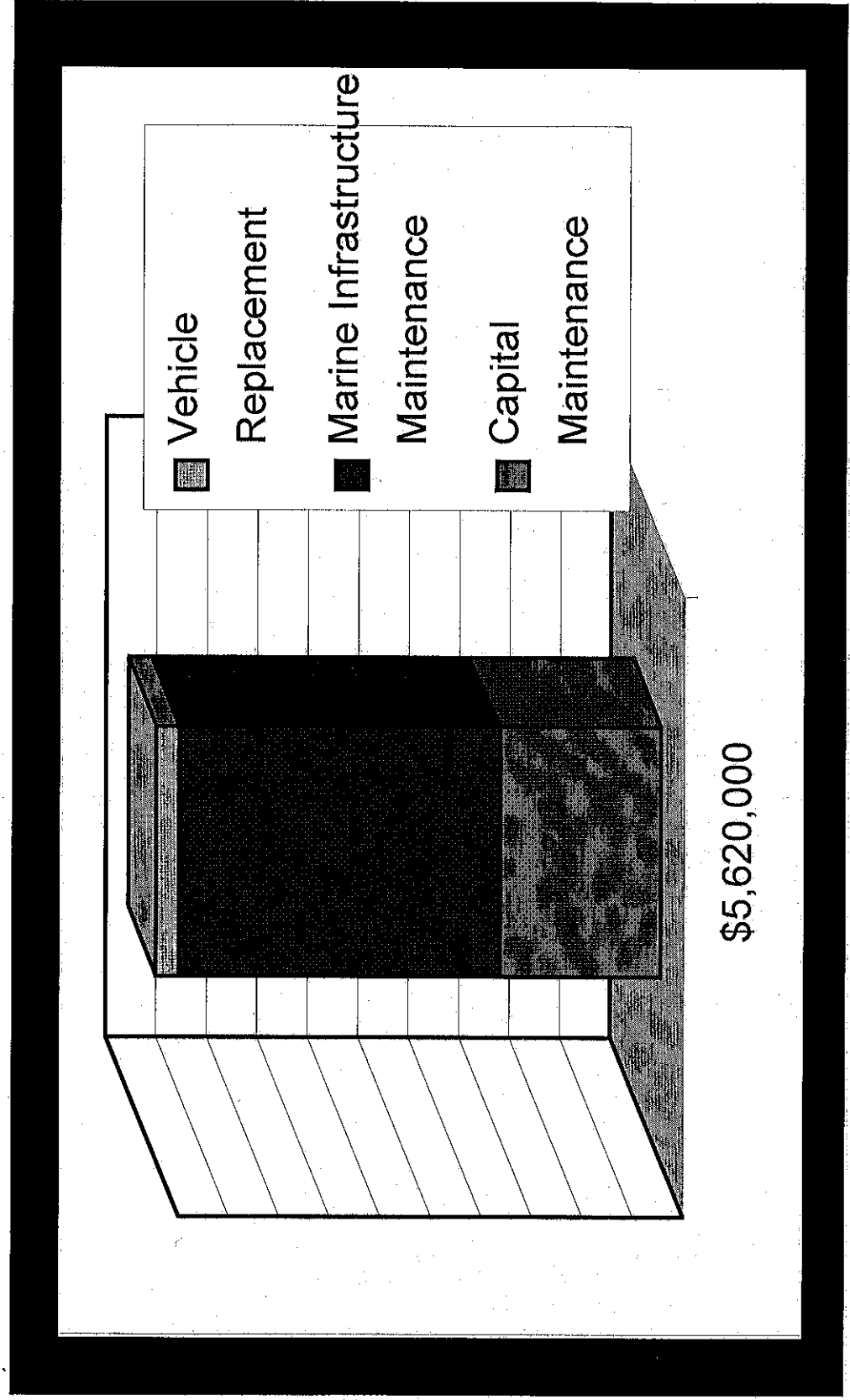
Security costs were derived by establishing varied patrol levels by season and time of day.

	<i>Park Hours</i>	<i>Daily Security Costs (3 shifts)</i>	<i>Area Patrolled per officer/ranger</i>	<i>Total Annual</i>
Peak Season (weekday)	6:00 a.m.-1:00 a.m.	\$6,000 for 9 officers and rangers	15 acres (day) 16 acres (night)	\$1,040,000
Peak Season (weekend)	6:00 a.m.-1:00 a.m.	\$7,100 for 11 officers and rangers	11 acres (day) 16 acres (night)	\$480,000
Winter Season	6:00 a.m.-1:00 a.m.	\$3,400 for 5 officers and rangers	25 acres (day) 33 acres (night)	\$410,000

* Day based on 62 acres, night based on 42 acres assuming Piers 2,3,5 and 6 are closed at night

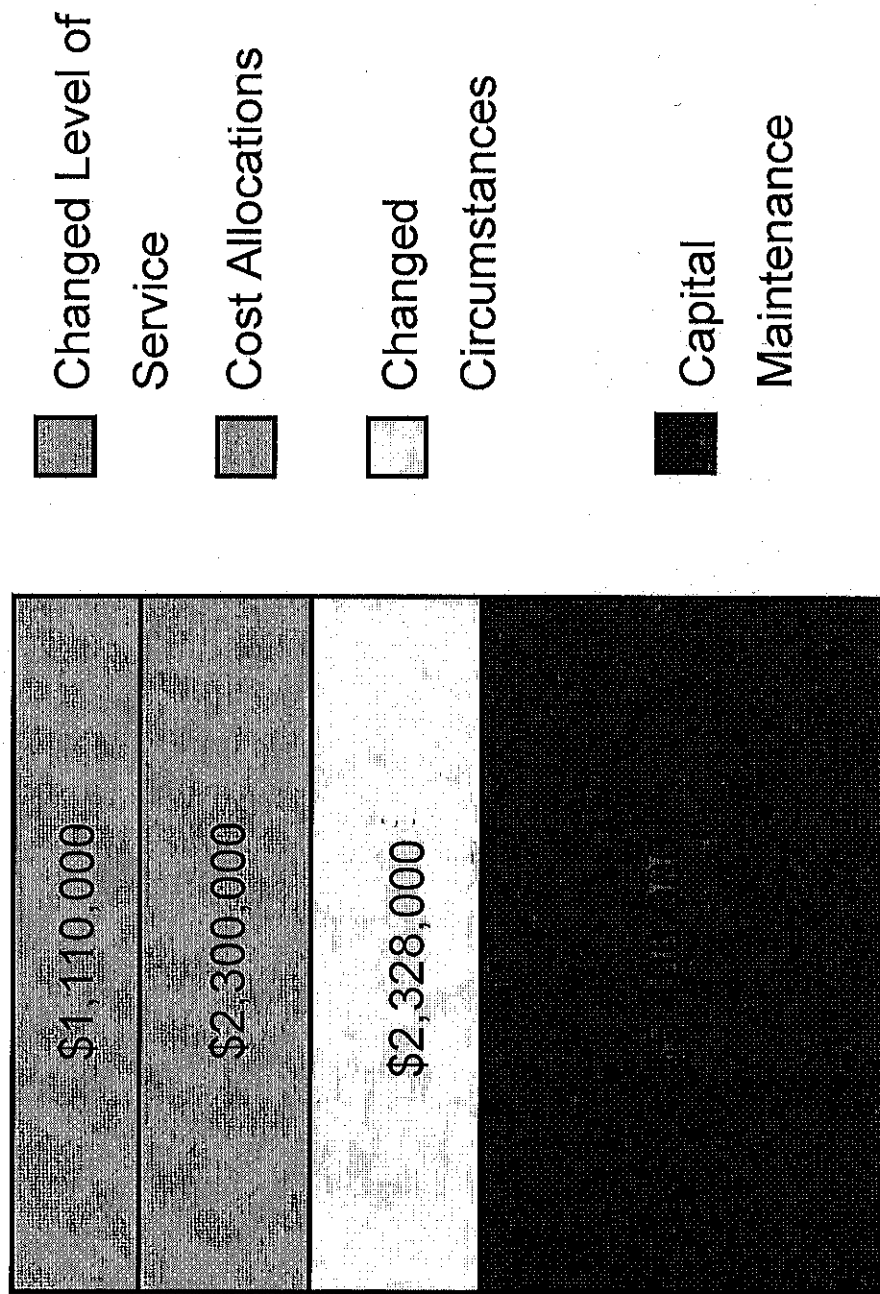
Results

To preserve and protect the park over an extended period of time, capital maintenance costs are estimated to require average annual expenditures as follows:



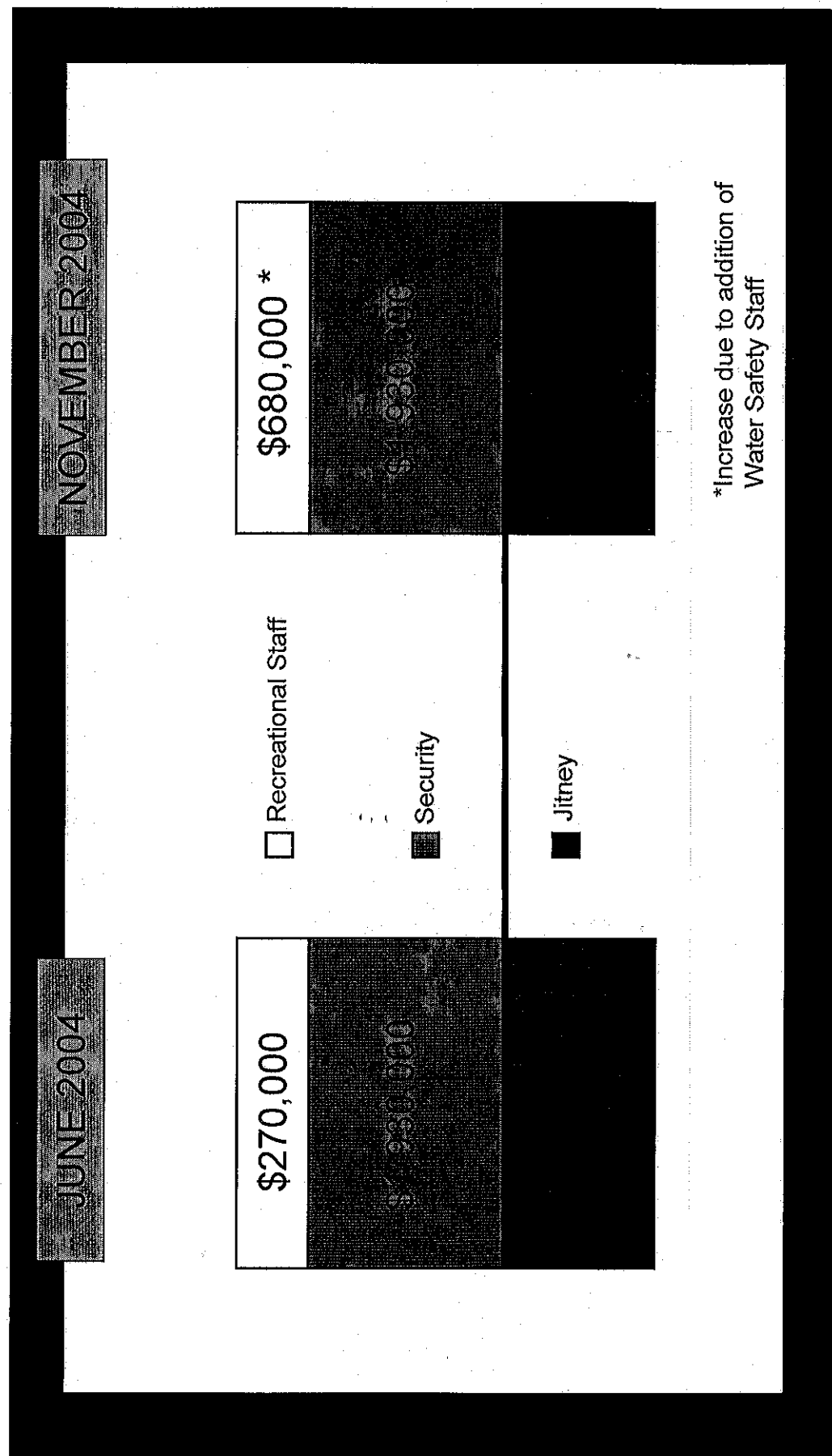
Results: Comparison to 2000

The difference between the 2000 and November 2004 budgets result from changed circumstances, cost allocations, changed level of service and capital maintenance



Results: Comparison to 2000

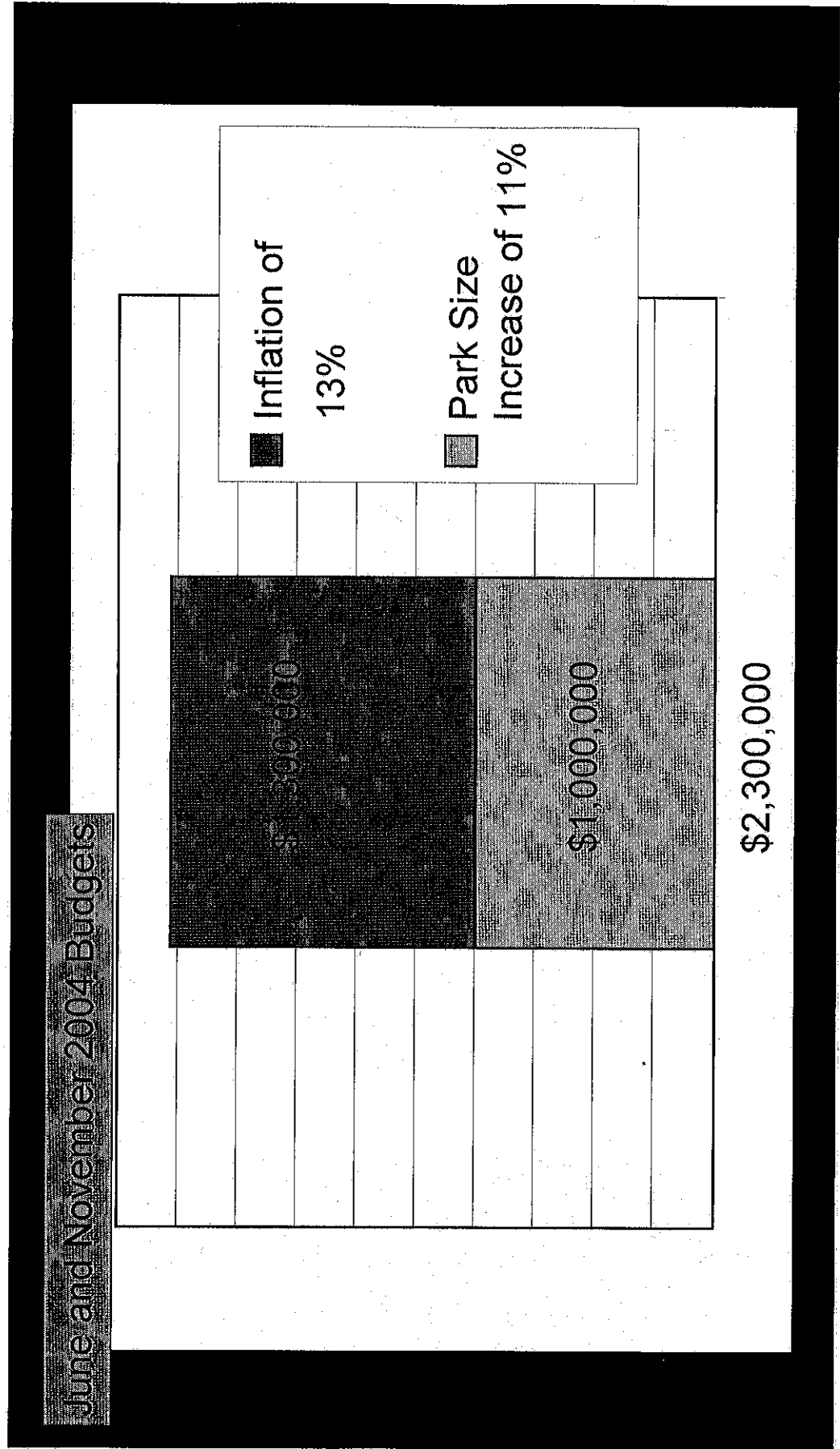
Changed level of service:
Security has been increased and the jitney is not included.



Results: Comparison to 2000

Cost Allocations:

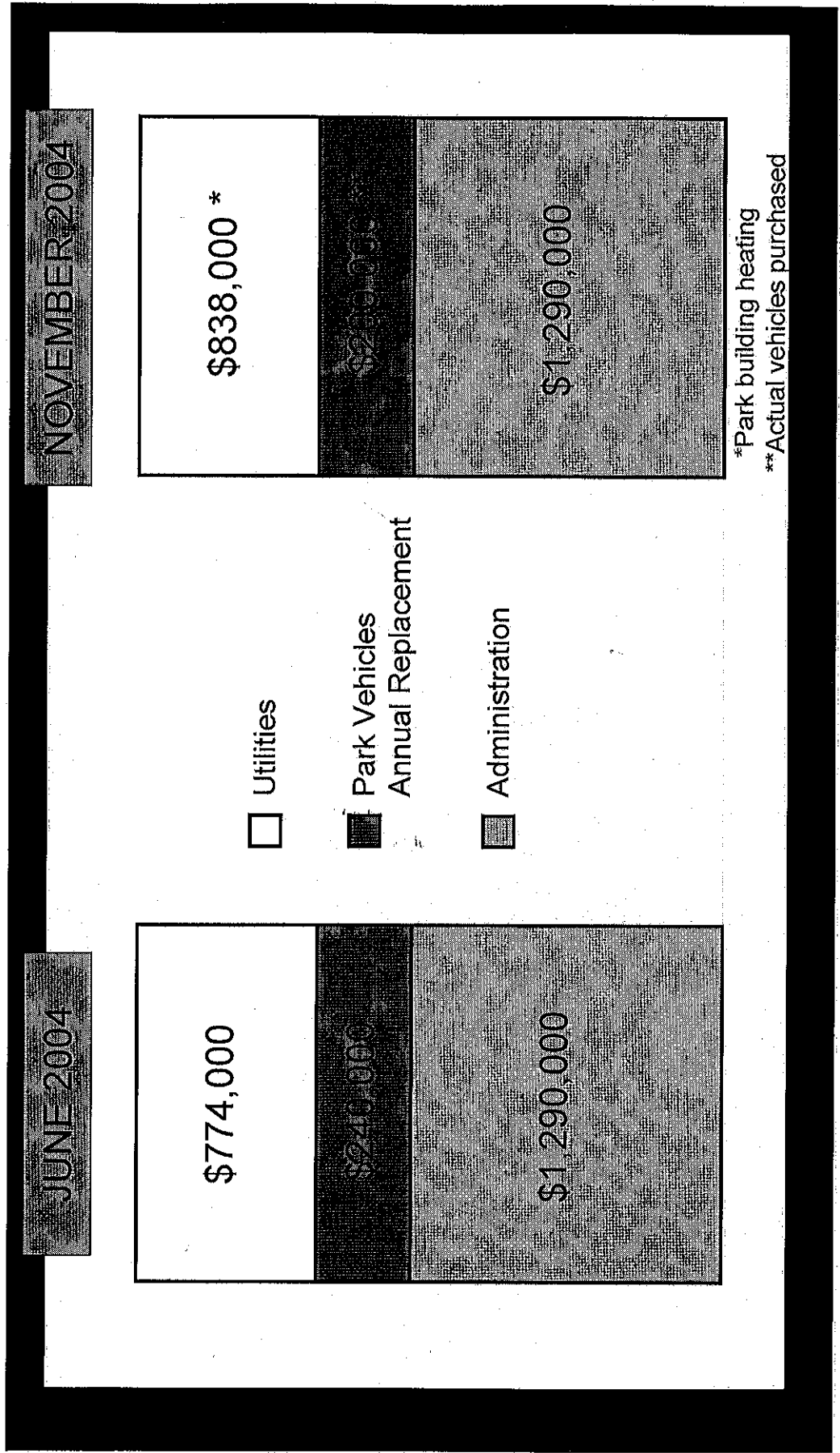
Inflation and increased acreage increases costs by 24%.



Results: Comparison to 2000

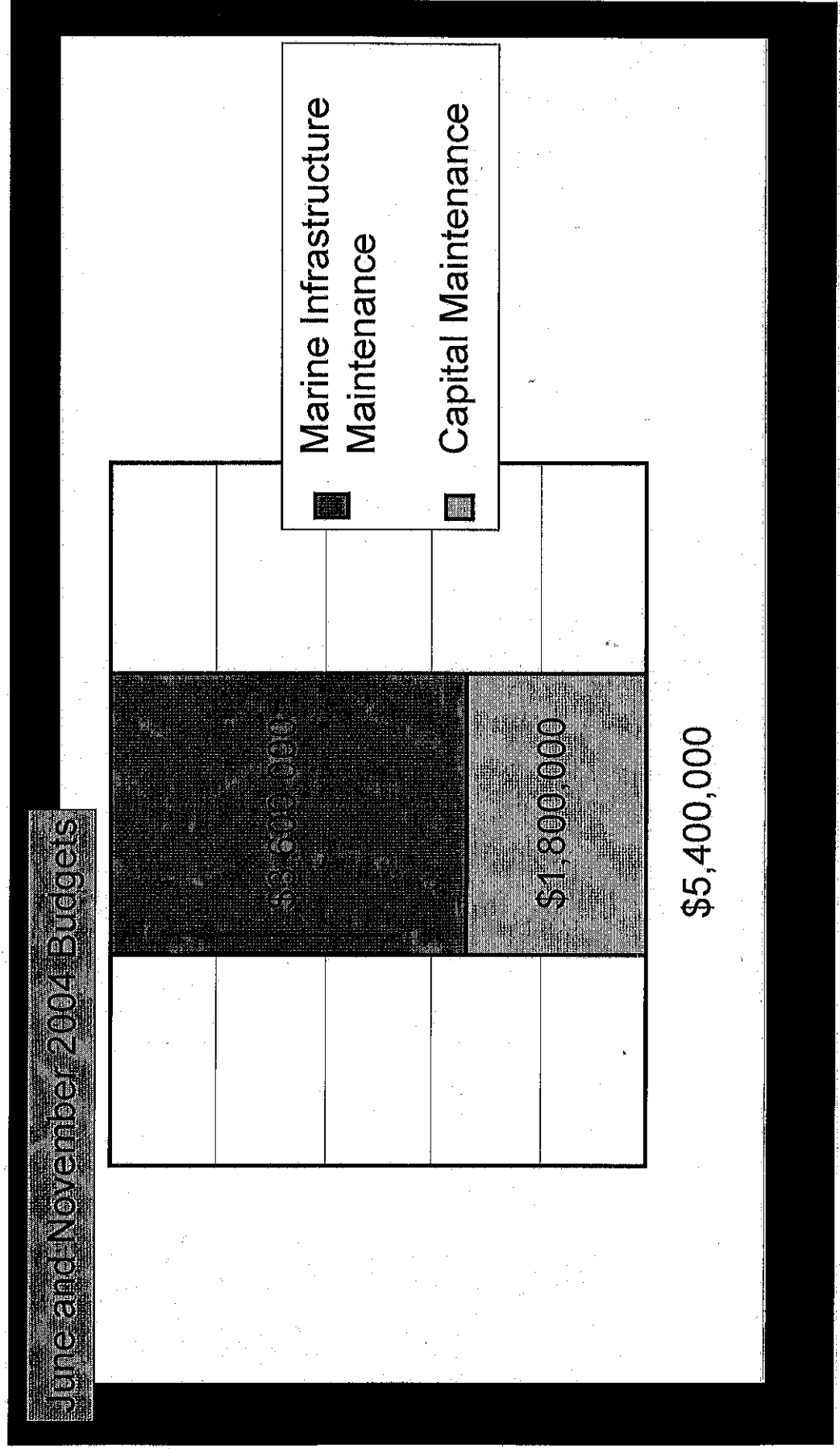
Changed Circumstances:

The Park budget now absorbs costs carried in 2000 directly by the City or State.



Results: Comparison to 2000

Capital Maintenance:
Capital and Marine Infrastructure maintenance has been added to cost requirements.



The Results in Context

The park's location, shape and structure create unique circumstances:

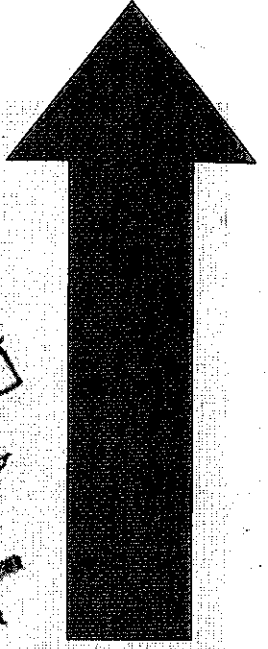
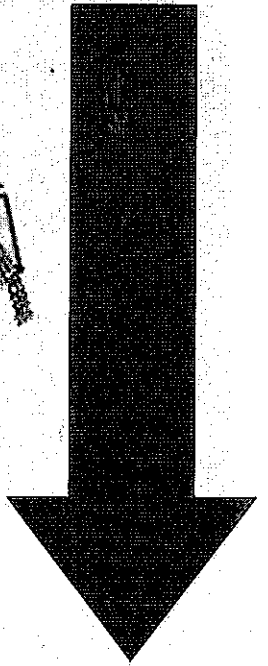
28% of land area built on marine structures

The linear orientation and isolated waterfront location causes above average costs for:

- Security
- Marine Structures
- Perimeter maintenance
- Trash Removal



\$15 million



The Results in Context

Unit costs developed for park landscape and program that can be applied to design as it progresses

Budget premised on preventative maintenance, proactive rather than reactive practices

Standard of care commensurate with park vision, anticipated visitation and expectations of a world class park

Brooklyn Bridge Park Maintenance and Operations Budget

And Supporting Documents



Michael Van Valkenburgh Associates

Mathews Nielsen Landscape Architects, P.C.

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BROOKLYN BRIDGE PARK
DRAFT MAINTENANCE/ OPERATIONS EXECUTIVE BUDGET SUMMARY

Reference: November 2004 Plan

AREA	Total Cost with concessions and closed piers at night	Area SF	Cost/ SF
Hardscape Areas incl. Basic Park Bldg Maintenance and Artificial Turf	\$1,191,848	1,370,486	\$0.87
Active Lawn Areas	\$395,264	394,147	\$1.00
Sports Lawns (Artificial Turf Maintenance is included under Hardscape)	\$0	0	NA
General lawn areas items (Irrigation and soil tests)	\$80,738	394,147	\$0.20
Planted Areas			
Display Gardens	\$102,737	19,550	\$5.26
Well Maintained Gardens	\$268,564	75,878	\$3.54
General Planting(Upland)	\$1,115,843	515,225	\$2.17
Wetland and Marsh Landscapes	\$139,786	82,313	\$1.70
Pier Landscape (Comparable to Intensive Roofs)	\$267,800	149,967	\$1.79
Water Areas			
Rip Rap Shoreline (Planted and Unplanted)	\$43,580	73,404	\$0.59
Safe Water Area Maintenance	\$399,251	450,376	\$0.89
Playground Maintenance	\$63,886	26,497	\$2.41
Maintenance Contingency (10%)	\$406,930		
Operations Staff (Security and Recreational)	\$2,681,757	2,707,467	NA
Additional costs for supplies, uniforms, postage, travel, office supplies, etc.	\$180,000		
Administrative Staff Cost*	\$1,200,000	NA	NA
Annual Property and Risk Insurance	\$200,000		
ANNUAL LANDSCAPE OPERATING COST	\$8,737,982		
UTILITY EXPENSE			
Total Electrical Cost for Park Lighting	\$473,514		
Total Cost for Park Water	\$194,561		
Total cost for park heating	\$93,213		
Utility Contingency (10%)	\$76,129		
TOTAL UTILITY EXPENSE	\$837,417		
TOTAL OPERATING COST	\$9,575,399		
CAPITAL MAINTENANCE			
Annual Capital Maintenance at 1.4% of Construction Cost Based on \$130,000,000 Construction Budget	\$1,820,000	NA	NA
Vehicle Replacement at 12.5% of Initial Cost (\$1,616,700)**	\$202,088		
ANNUAL MARINE INFRASTRUCTURE MAINTENANCE			
Annual Maintenance Cost***	\$3,600,000		
TOTAL COST	\$15,197,487		

EXCLUSIONS:

Pier Replacement and Building Major Structural Repairs

Special Events

Cultural and Education Programming

* Reference attached staff titles/rates

**Reference attached Equipment List

***DMJM+Harris Report

TOTAL PARK AREA

Type	Acre Area	SF Area	% of Park Area
Hardscape Areas incl. Basic Park Bldg Maintenance and Artificial Turf	31.46	1,370,486	50.6%
Playgrounds	0.61	26,497	1.0%
Active Lawn Areas	9.05	394,147	14.6%
Sports Lawns (Artificial Turf Maintenance is included under Hardscape)	0.00	0	0.0%
Display Gardens	0.45	19,550	0.7%
Well Maintained Gardens	1.74	75,878	2.8%
General Planting	11.83	515,225	19.0%
Wetlands and Marsh	1.89	82,313	3.0%
Pier Landscape (comparable to intensive roofs)	3.44	149,967	5.5%
Rip Rap Shoreline	0.74	32,377	1.2%
Planted Rip Rap Shoreline	0.94	41,027	1.5%
Total park area, excluding buildings and water	62.15	2,707,467	100.0%
Security exclusive of development parcels	62.15	2,707,467	
Buildings	7.47	325,387	
Total park area excluding water	69.62	3,032,854	
Safe Water	10.34	450,376	
Total park area including water and buildings	79.96	3,483,230	
Total Park Budget as provided by BBPDC		\$130,000,000	

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate*	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
Hardscape Areas									
Pickup of trash	3142	Park Worker 1	\$12.85	\$40,387	\$0.00	\$0	\$1.00	\$3,142	\$43,529
Pickup of hand collected garbage and emptying of trash cans	1100	Park Worker 3	\$16.39	\$18,574	\$84.37	\$93,355	\$1.00	\$1,100	\$113,029
Sweeping (machine)	1392	Park Worker 3	\$16.89	\$23,497	\$84.87	\$118,100	\$1.00	\$1,392	\$142,989
Powerwashing	605	Park Worker 1	\$12.85	\$7,777	\$25.93	\$15,687	\$0.00	\$0	\$23,463
Wash paved areas with hose	226	Park Worker 1	\$12.85	\$2,905	\$0.00	\$0	\$0.00	\$0	\$2,905
Asphalt Repair (coldpatch)	91	Park Worker 3	\$16.89	\$1,532	\$10.42	\$945	\$7.56	\$686	\$3,163
Concrete Repair	805	Park Worker 3	\$16.89	\$13,593	\$10.42	\$8,388	\$40.56	\$32,651	\$54,631
Reset Pavers	564	Park Worker 3	\$16.89	\$9,515	\$10.42	\$5,871	\$5.00	\$2,818	\$18,204
Touch-up lines and markings on pavement	1	Lump Sum	NA	\$20,000	\$0.00	\$0	\$0.00	\$0	\$20,000
General light pole maintenance	278	Park Worker 3	\$16.89	\$4,686	\$84.87	\$23,551	\$8.50	\$2,359	\$30,595
Replace light bulbs in fixtures throughout park	278	Park Worker 3	\$16.89	\$4,686	\$84.87	\$23,551	\$10.00	\$2,775	\$31,012
Prune trees (from truck)	237	Work Crew Type 1	\$31.16	\$7,369	\$153.69	\$36,347	\$0.00	\$0	\$43,716
Fertilizer for trees	137	Work Crew Type 4	\$31.16	\$4,269	\$15.51	\$2,125	\$9.00	\$1,233	\$7,627
Pest control for trees	263	Work Crew Type 3	\$39.42	\$10,367	\$15.51	\$4,079	\$40.00	\$10,520	\$24,966
Snow removal (hand)	8774	Park Worker 1	\$12.85	\$112,790	\$0.00	\$0	\$0.00	\$0	\$112,790
Snow removal (machine)	146	Park Worker 3	\$16.89	\$2,469	\$15.51	\$2,268	\$0.00	\$0	\$4,737
Spread sand and salt mix	585	Park Worker 3	\$16.89	\$9,877	\$26.75	\$15,650	\$4.00	\$2,340	\$27,867
Cleaning and maintenance of bathrooms	4698	Bathroom Cleaning Crew	\$28.55	\$134,126	\$0.00	\$0	\$1.00	\$4,698	\$138,824
Cleaning and maintenance of classrooms/offices	935	Park Worker 2	\$14.27	\$13,350.92	\$0.00	\$0	\$1.00	\$935.28	\$14,286
Rake and Groom Artificial Turf Fields	1494	Park Worker 1	\$12.85	\$19,204.46	\$10.42	\$15,567	\$19.00	\$28,386.00	\$63,157
Graffiti Removal, assuming use of graffiti resistant coating	416	Park Worker 2	\$14.27	\$5,933.74	\$10.42	\$4,331.14	\$5.00	\$2,078.40	\$12,343
Fountain and water feature maintenance	13	Plumber	\$0.00	\$0.00	\$0.00	\$0.00	\$5,000.00	\$62,500.00	\$62,500
Drinking fountain maintenance	35	Plumber	\$0.00	\$0.00	\$0.00	\$0.00	\$240.00	\$8,400.00	\$8,400
Rodent Control for entire Park	4690	Park Worker 3	\$16.89	\$79,196.86	\$15.51	\$72,740.07	\$7.50	\$35,176.92	\$187,114

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate*	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
Playground Maintenance									
Pickup of trash	62	Park Worker 1	\$12.85	\$795	\$0.00	\$0.00	\$1.00	\$61.88	\$857
Powerwashing	15	Park Worker 1	\$12.85	\$193	\$25.93	\$388.92	\$0.00	\$0.00	\$582
Wash paved areas with hose	6	Park Worker 1	\$12.85	\$77	\$0.00	\$0.00	\$0.00	\$0.00	\$77
Asphalt Repair (coldpatch)	4	Park Worker 3	\$16.89	\$63	\$10.42	\$38.59	\$7.56	\$28.00	\$129
Concrete Repair	18	Park Worker 3	\$16.89	\$310	\$10.42	\$191.02	\$40.56	\$743.60	\$1,244
Reset Pavers	13	Park Worker 3	\$16.89	\$217	\$10.42	\$133.72	\$5.00	\$64.17	\$415
Touch-up lines and markings on pavement	1	Lump Sum	NA	\$5,000	\$0.00	\$0.00	\$0.00	\$0.00	\$5,000
Snow removal (hand)	424	Park Worker 1	\$12.85	\$5,450	\$0.00	\$0.00	\$0.00	\$0.00	\$5,450
Snow removal (machine)	14	Park Worker 3	\$16.89	\$239	\$15.51	\$219.19	\$0.00	\$0.00	\$458
Spread sand and salt mix	28	Park Worker 3	\$16.89	\$477	\$26.75	\$756.23	\$4.00	\$113.07	\$1,347
Prune trees (from truck)	26	Work Crew Type 1	\$31.16	\$795	\$153.69	\$3,919.00	\$0.00	\$0.00	\$4,714
Fertilizer for trees	10	Work Crew Type 4	\$31.16	\$312	\$15.51	\$155.09	\$9.00	\$90.00	\$557
Pest control for trees	19	Work Crew Type 3	\$39.42	\$749	\$15.51	\$294.67	\$40.00	\$760.00	\$1,804
Graffiti Removal, assuming use of graffiti resistant coating	416	Park Worker 2	\$14.27	\$5,934	\$10.42	\$4,331.14	\$5.00	\$2,078.40	\$12,343
Raking and cleaning of sand boxes and other areas of loose safety and play materials and general cleaning	1871	Park Worker 1	\$12.85	\$24,045	\$0.00	\$0.00	\$0.00	\$0.00	\$24,045
Repainting, repairs and replacement parts for play equipment	3	Not Applicable	Not Applicable	\$1,000	\$0.00	\$0.00	\$0.00	\$0.00	\$3,000
Rodent Control for playgrounds	47	Park Worker 3	\$16.89	\$790	\$15.51	\$725.25	\$7.50	\$350.73	\$1,866

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate*	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
Active Lawn Areas									
Planting Inspection with Horticultural/IPM manager	792	Work Crew Type 8	\$45.07	\$35,692	\$0.00	\$0.00	\$0.00	\$0.00	\$35,692
Prune trees (from truck)	245	Work Crew Type 1	\$31.16	\$7,619	\$153.69	\$37,576.31	\$0.00	\$0.00	\$45,195
Fertilizer for trees	196	Work Crew Type 4	\$31.16	\$6,107	\$15.51	\$3,039.72	\$9.00	\$1,764.00	\$10,911
Pest control for trees	564	Work Crew Type 3	\$39.42	\$22,232	\$15.51	\$8,746.94	\$40.00	\$22,560.00	\$53,539
Litter Removal	905	Park Worker 1	\$12.85	\$11,636	\$0.00	\$0.00	\$0.50	\$452.60	\$12,089
Mow (self propelled power)	4257	Park Worker 1	\$12.85	\$54,721	\$10.42	\$44,355.44	\$0.00	\$0.00	\$99,077
Fertilizer (push spreader)	198	Park Worker 1	\$12.85	\$2,545	\$0.00	\$0.00	\$9.00	\$1,782.00	\$4,327
Weed control (push spreader)	594	Park Worker 1	\$12.85	\$7,636	\$0.00	\$0.00	\$40.00	\$23,760.00	\$31,396
Rake (sweep rake)	1485	Park Worker 1	\$12.85	\$19,089	\$0.00	\$0.00	\$0.00	\$0.00	\$19,089
Edge lawn at paths (gas edger)	20	Park Worker 1	\$12.85	\$257	\$10.42	\$208.39	\$0.00	\$0.00	\$465
Edge lawn at plant beds (gas edger)	561	Park Worker 1	\$12.85	\$7,207	\$10.42	\$5,841.75	\$0.00	\$0.00	\$13,049
Overseed (push spreader)	594	Park Worker 1	\$12.85	\$7,636	\$0.00	\$0.00	\$9.00	\$5,346.00	\$12,982
Aerate (machine)	990	Park Worker 1	\$12.85	\$12,726	\$10.42	\$10,315.22	\$30.00	\$29,700.00	\$52,741
Lime (push spreader)	264	Park Worker 1	\$12.85	\$3,394	\$0.00	\$0.00	\$5.00	\$1,320.00	\$4,714
General Lawn Maintenance									
Annual Soil Tests	27	Work Crew Type 5	\$39.42	\$1,064	\$0.00	\$0	\$0.00	\$0	\$1,064
Check irrigation heads	1386	Work Crew Type 8	\$45.07	\$62,461	\$0.00	\$0	\$0.00	\$0	\$62,461
Manual control of irrigation	196	Work Crew Type 8	\$45.07	\$8,833	\$15.51	\$3,040	\$0.00	\$0	\$11,873
Check quick couplers/valves	20	Work Crew Type 8	\$45.07	\$901	\$0.00	\$0	\$0.00	\$0	\$901
Drain/clean/maint. Irrigation	80	Work Crew Type 8	\$45.07	\$3,605	\$10.42	\$834	\$0.00	\$0	\$4,439

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate*	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
Display Gardens									
Planting Inspection with Horticultural/IPM manager	98	Work Crew Type 8	\$45.07	\$4,416	\$0.00	\$0	\$0.00	\$0	\$4,416
Prune trees(from truck)	61	Work Crew Type 1	\$31.16	\$1,901	\$153.69	\$9,375	\$0.00	\$0	\$11,276
Fertilizer for trees	26	Work Crew Type 4	\$31.16	\$810	\$15.51	\$403	\$9.00	\$234	\$1,447
Pest control for trees	72	Work Crew Type 3	\$39.42	\$2,838	\$15.51	\$1,117	\$40.00	\$2,880	\$6,835
Spring Planting Bed Preparation	67	Park Worker 3	\$16.89	\$1,131	\$15.51	\$1,039	\$0.00	\$0	\$2,170
Spring Planting	200	Park Worker 3	\$16.89	\$3,377	\$15.51	\$3,102	\$12.00	\$2,400	\$8,879
Fall Plantings (Bulbs)	200	Park Worker 3	\$16.89	\$3,377	\$15.51	\$3,102	\$25.00	\$5,000	\$11,479
Weed (by hand)	210	Work Crew Type 6	\$44.01	\$9,243	\$15.51	\$3,257	\$0.00	\$0	\$12,500
Weed (pre/post emergent)	14	Work Crew Type 3	\$39.42	\$552	\$15.51	\$217	\$12.00	\$168	\$937
Prune	49	Work Crew Type 6	\$44.01	\$2,157	\$15.51	\$760	\$0.00	\$0	\$2,917
Fertilizer (broadcast)	6	Work Crew Type 3	\$39.42	\$237	\$15.51	\$93	\$20.00	\$120	\$450
Mulch (hand apply)	90	Work Crew Type 6	\$44.01	\$3,961	\$15.51	\$1,396	\$172.00	\$15,480	\$20,837
Pest control (systemic)	30	Work Crew Type 3	\$39.42	\$1,183	\$15.51	\$465	\$12.00	\$360	\$2,008
Remove trash	550	Park Worker 1	\$12.85	\$7,070	\$0.00	\$0	\$3.00	\$1,650	\$8,720
Check irrigation heads	98	Work Crew Type 8	\$45.07	\$4,416	\$0.00	\$0	\$0.00	\$0	\$4,416
Manual control of irrigation	42	Work Crew Type 8	\$45.07	\$1,893	\$15.51	\$651	\$0.00	\$0	\$2,544
Check quick couplers/valves	4	Work Crew Type 8	\$45.07	\$180	\$15.51	\$62	\$0.00	\$0	\$242
Drain/clean/maint. Irrigation	8	Work Crew Type 8	\$45.07	\$361	\$10.42	\$83	\$0.00	\$0	\$444
Annual soil test/evaluation	4	Work Crew Type 5	\$39.42	\$158	\$15.51	\$62	\$0.00	\$0	\$220

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate**	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
Well Maintained Gardens									
Planting Inspection with Horticultural/IPM manager	280	Work Crew Type 3	\$45.07	\$12,618	\$0.00	\$0	\$0.00	\$0	\$12,618
Prune trees(from truck)	177	Work Crew Type 1	\$31.16	\$5,515	\$153.69	\$27,202	\$0.00	\$0	\$32,718
Fertilizer for trees	48	Work Crew Type 4	\$31.16	\$1,496	\$15.51	\$744	\$9.00	\$432	\$2,672
Pest control for trees*	91	Work Crew Type 3	\$39.42	\$3,587	\$15.51	\$1,411	\$40.00	\$3,640	\$8,638
Spring Planting Bed Preparation	254	Park Worker 3	\$16.89	\$4,289	\$15.51	\$3,939	\$0.00	\$0	\$8,228
Spring Planting	760	Park Worker 3	\$16.89	\$12,833	\$15.51	\$11,787	\$12.00	\$9,120	\$33,740
Fall Plantings (Bulbs)	760	Park Worker 3	\$16.89	\$12,833	\$15.51	\$11,787	\$0.00	\$0	\$24,620
Weed (by hand)	520	Work Crew Type 6	\$44.01	\$22,888	\$15.51	\$8,065	\$0.00	\$0	\$30,952
Weed (pre/post emergent)	32	Work Crew Type 3	\$39.42	\$1,261	\$15.51	\$496	\$12.00	\$384	\$2,142
Prune	104	Work Crew Type 6	\$44.01	\$4,578	\$15.51	\$1,613	\$0.00	\$0	\$6,190
Fertilizer (broadcast)	24	Work Crew Type 3	\$39.42	\$946	\$15.51	\$372	\$20.00	\$480	\$1,798
Mulch (hand apply)	180	Work Crew Type 6	\$44.01	\$7,923	\$15.51	\$2,792	\$172.00	\$30,960	\$41,674
Pest control (systemic)	114	Work Crew Type 3	\$39.42	\$4,494	\$15.51	\$1,768	\$12.00	\$1,368	\$7,630
Remove trash	1925	Park Worker 1	\$12.85	\$24,745	\$0.00	\$0	\$3.00	\$5,775	\$30,520
Check irrigation heads	385	Work Crew Type 8	\$45.07	\$17,350	\$0.00	\$0	\$0.00	\$0	\$17,350
Manual control of irrigation	70	Work Crew Type 8	\$45.07	\$3,155	\$15.51	\$1,086	\$0.00	\$0	\$4,240
Check quick couplers/valves	13	Work Crew Type 8	\$45.07	\$586	\$15.51	\$202	\$0.00	\$0	\$787
Drain/clean/maint. Irrigation	24	Work Crew Type 8	\$45.07	\$1,082	\$10.42	\$250	\$0.00	\$0	\$1,332
Annual soil test/evaluation	13	Work Crew Type 5	\$39.42	\$512	\$15.51	\$202	\$0.00	\$0	\$714

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate*	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
General Planting Areas									
Planting Inspection with Horticultural/IPM manager	946	Work Crew Type 8	\$45.07	\$42,632	\$0.00	\$0	\$0.00	\$0	\$42,632
Prune trees (from truck)	1396	Work Crew Type 1	\$31.16	\$43,500	\$153.69	\$214,346	\$0.00	\$0	\$258,046
Fertilizer for trees	559	Work Crew Type 4	\$31.16	\$17,419	\$15.51	\$8,669	\$9.00	\$5,031	\$31,119
Pest control for trees*	1074	Work Crew Type 3	\$39.42	\$42,335	\$15.51	\$16,656	\$40.00	\$42,960	\$101,952
Weed (by hand)	1720	Work Crew Type 6	\$44.01	\$75,705	\$15.51	\$26,675	\$0.00	\$0	\$102,380
Weed (pre/post emergent)	208	Work Crew Type 3	\$39.42	\$8,199	\$15.51	\$3,226	\$12.00	\$2,496	\$13,921
Prune	688	Work Crew Type 6	\$44.01	\$30,282	\$15.51	\$10,670	\$0.00	\$0	\$40,952
Fertilizer (broadcast)	156	Work Crew Type 3	\$39.42	\$6,149	\$15.51	\$2,419	\$20.00	\$3,120	\$11,689
Mulch (hand apply)	1205	Work Crew Type 6	\$44.01	\$53,038	\$15.51	\$18,688	\$172.00	\$207,260	\$278,986
Pest control (systemic)	774	Work Crew Type 3	\$39.42	\$30,510	\$15.51	\$12,004	\$12.00	\$9,288	\$51,802
Remove trash	2709	Park Worker 1	\$12.85	\$34,823	\$0.00	\$0	\$3.00	\$8,127	\$42,950
Check irrigation heads	2583	Work Crew Type 8	\$45.07	\$116,405	\$0.00	\$0	\$0.00	\$0	\$116,405
Manual control of irrigation	84	Work Crew Type 8	\$45.07	\$3,786	\$15.51	\$1,303	\$0.00	\$0	\$5,088
Check quick couplers/valves	86	Work Crew Type 8	\$45.07	\$3,876	\$15.51	\$1,334	\$0.00	\$0	\$5,209
Drain/clean/maint. Irrigation	144	Work Crew Type 8	\$45.07	\$6,489	\$10.42	\$1,500	\$0.00	\$0	\$7,990
Annual soil test/evaluation	86	Work Crew Type 5	\$39.42	\$3,390	\$15.51	\$1,334	\$0.00	\$0	\$4,724

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate*	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
Wetland and Marsh Areas									
Planting inspection with Horticultural/IPM manager	182	Work Crew Type 3	\$45.07	\$8,202	\$0.00	\$0	\$0.00	\$0	\$8,202
Prune trees(from truck)	224	Work Crew Type 1	\$31.16	\$6,964	\$153.69	\$34,349	\$0.00	\$0	\$41,313
Fertilizer for trees	90	Work Crew Type 4	\$31.16	\$2,804	\$15.51	\$1,396	\$9.00	\$810	\$5,010
Pest control for trees*	172	Work Crew Type 3	\$39.42	\$6,780	\$15.51	\$2,668	\$40.00	\$6,880	\$16,327
Mow (self propelled power)	0	Park Worker 1	\$12.85	\$0	\$10.42	\$0	\$0.00	\$0	\$0
Weed (by hand)	560	Work Crew Type 6	\$44.01	\$24,648	\$15.51	\$8,685	\$0.00	\$0	\$33,333
Weed (pre/post emergent)	27	Work Crew Type 3	\$39.42	\$1,064	\$15.51	\$419	\$12.00	\$324	\$1,807
Prune	56	Work Crew Type 6	\$44.01	\$2,465	\$15.51	\$868	\$0.00	\$0	\$3,333
Fertilizer (broadcast)	18	Work Crew Type 3	\$39.42	\$710	\$15.51	\$279	\$20.00	\$360	\$1,349
Mulch (hand apply)	78	Work Crew Type 6	\$44.01	\$3,433	\$15.51	\$1,210	\$172.00	\$13,416	\$18,059
Pest control (systemic)	84	Work Crew Type 3	\$39.42	\$3,311	\$15.51	\$1,303	\$12.00	\$1,008	\$5,622
Remove trash	294	Park Worker 1	\$12.85	\$3,779	\$0.00	\$0	\$3.00	\$882	\$4,661
Check irrigation heads	0	Work Crew Type 8	\$45.07	\$0	\$0.00	\$0	\$0.00	\$0	\$0
Manual control of irrigation	0	Work Crew Type 8	\$45.07	\$0	\$15.51	\$0	\$0.00	\$0	\$0
Check quick couplers/valves	0	Work Crew Type 8	\$45.07	\$0	\$15.51	\$0	\$0.00	\$0	\$0
Drain/clean/maint. Irrigation	0	Work Crew Type 8	\$45.07	\$0	\$0.00	\$0	\$0.00	\$0	\$0
Annual soil test/evaluation	14	Work Crew Type 5	\$39.42	\$552	\$15.51	\$217	\$0.00	\$0	\$769

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate*	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
Pier Landscape (Comparable to Intensive Roof)									
Planting Inspection with Horticultural/IPM manager	312	Work Crew Type 8	\$45.07	\$14,061	\$0.00	\$0	\$0.00	\$0	\$14,061
Prune small trees	188	Work Crew Type 1	\$31.16	\$5,843	\$10.42	\$1,954	\$0.00	\$0	\$7,796
Fertilizer for trees	125	Work Crew Type 4	\$31.16	\$3,895	\$15.51	\$1,939	\$9.00	\$1,125	\$6,959
Pest control for trees*	188	Work Crew Type 3	\$39.42	\$7,411	\$15.51	\$2,916	\$40.00	\$7,520	\$17,846
Weed (by hand)	1000	Work Crew Type 6	\$44.01	\$44,015	\$15.51	\$15,509	\$0.00	\$0	\$59,523
Weed (pre/post emergent)	60	Work Crew Type 3	\$39.42	\$2,365	\$15.51	\$931	\$12.00	\$720	\$4,016
Prune	200	Work Crew Type 6	\$44.01	\$8,803	\$15.51	\$3,102	\$0.00	\$0	\$11,905
Fertilizer (broadcast)	45	Work Crew Type 3	\$39.42	\$1,774	\$15.51	\$698	\$20.00	\$900	\$3,372
Mulch (hand apply)	350	Work Crew Type 6	\$44.01	\$15,405	\$15.51	\$5,428	\$172.00	\$60,200	\$81,033
Pest control (systemic)	225	Work Crew Type 3	\$39.42	\$8,869	\$15.51	\$3,489	\$12.00	\$2,700	\$15,059
Remove trash	338	Park Worker 1	\$12.85	\$4,345	\$0.00	\$0	\$3.00	\$1,014	\$5,359
Check irrigation heads	756	Work Crew Type 8	\$45.07	\$34,070	\$0.00	\$0	\$0.00	\$0	\$34,070
Manual control of irrigation	28	Work Crew Type 8	\$45.07	\$1,262	\$15.51	\$434	\$0.00	\$0	\$1,696
Check quick couplers/valves	25	Work Crew Type 8	\$45.07	\$1,127	\$15.51	\$388	\$0.00	\$0	\$1,514
Drain/clean/maint. Irrigation	40	Work Crew Type 8	\$45.07	\$1,802.63	\$10.42	\$417	\$0.00	\$0	\$2,219
Annual soil test/evaluation	25	Work Crew Type 5	\$39.42	\$985.46	\$15.51	\$388	\$0.00	\$0	\$1,373
Planted and Unplanted Rip Rap									
Pickup and disposal of garbage	407	Work Crew Type 9	\$29.74	\$12,104	\$26.75	\$10,889	\$1.00	\$407	\$23,400
Spring repairs to rip rap due to ice damage	74	Park Worker 1	\$12.85	\$951	\$10.42	\$771	\$100.00	\$7,400	\$9,122
Plantings repair	95	Park Worker 3	\$16.89	\$1,596	\$10.42	\$985	\$80.00	\$7,560	\$10,140
Fertilize rip rap plantings	14	Park Worker 2	\$14.27	\$200	\$42.26	\$592	\$9.00	\$126	\$918

MAINTENANCE/ OPERATIONS BUDGET

Reference: November 2004 Plan

AREA	Total Hours or units	Labor Category*	Labor Rate*	Annual Labor Cost	Equipment Rate **	Annual Equipment Cost	Materials Cost per Hour	Annual Material Cost	Total Cost Per Task
Safe Water Areas									
Pickup and disposal of garbage on water	6756	Work Crew Type 9	\$29.74	\$200,911	\$26.75	\$180,737	\$1.00	\$6,756	\$388,404
Resetting buoys, wave attenuators and float bridges	192	Work Crew Type 9	\$29.74	\$5,710	\$26.75	\$5,137	\$0.00	\$0	\$10,847
Operations Staff									
Unarmed Security	41610	Park Patrol	\$18.86	\$784,761	\$15.51	\$645,320	\$0.00	\$0	\$1,430,081
Armed Security	13870	Sergeant, Park Patrol	\$23.55	\$326,693	\$15.51	\$215,107	\$0.00	\$0	\$541,799
Mechanic	2080	Motor Equipment Mechanic	\$20.06	\$41,717	\$0.00	\$0	\$0.00	\$0	\$41,717
Mechanic Assistant	2080	Motor Equipment Mechanic Apprentice	\$14.27	\$29,692	\$0.00	\$0	\$0.00	\$0	\$29,692
Park Manager	2080	Park Manager 2	\$31.34	\$65,187	\$15.51	\$32,258	\$0.00	\$0	\$97,445
Park Recreation Supervisor	2080	Park Recreation Supervisor	\$21.42	\$44,547	\$0.00	\$0	\$0.00	\$0	\$44,547
Park Recreation Activities Specialist	14560	Park Recreation Activities Specialist	\$22.05	\$321,071	\$0.00	\$0	\$0.00	\$0	\$321,071
Life Guards for Kayaking Area	3820	Park Recreation Activities Specialist	\$19.16	\$73,207	\$26.75	\$102,198	\$0.00	\$0	\$175,406
Utilities****									
Total Electrical Cost for Park Lighting									\$473,514
Total Cost for Park Water									\$194,561
Square foot area of buildings to be heated									\$93,213

* See BBPDC LABOR COSTS Sheet.

** See BBPDC EQUIPMENT COSTS Sheet.

*** Does not include equipment replacement/reinstallation costs.

****Reference attached utility evaluation sheets.

BBPDC MAINTENANCE EQUIPMENT COSTS WITH IN HOUSE MAINTENANCE

Group 1	Bare Cost	Costs Per day Use	Total Per Day adjusted for NYC*	Group 2	Bare Cost	Costs Per day Use	Total Per Day adjusted for NYC*
Aerial Lift Truck	\$493.60		\$646.62	1 Backup Truck	\$182.40		\$238.94
Brush Chipper, 130 HP	\$182.60		\$239.21	Arrowboard	\$31.82	\$10.00	\$41.82
1 Pruning Saw, Rotary	\$17.90	\$17.35	\$46.18	3 ton truck	\$182.40		\$238.94
							\$519.71
						Per Hour 2002	\$64.96
3 ton truck	\$182.40		\$238.94			Adjusted Per Hour for 2004	\$68.21
			\$1,170.94				
		Per Hour 2002	\$146.37				
		Adjusted Per Hour for 2004	\$153.69				
Group 3				Group 4			
Pickup (4x4), Toyota Prius or Taylor Durm	\$90.20		\$118.16	Gas Power Tool	\$60.60		\$79.39
		Per Hour 2002	\$14.77			Per Hour 2002	\$9.92
		Adjusted Per Hour for 2004	\$15.51			Adjusted Per Hour for 2004	\$10.42
Group 5				Group 6			
Light Truck, 1.5 ton or small boat	\$155.60		\$203.84	1 Backup Truck	\$182.40		\$238.94
		Per Hour 2002	\$25.48	Arrowboard	\$31.82	\$10.00	\$41.82
		Adjusted Per Hour for 2004	\$26.75				\$280.76
						Per Hour 2002	\$35.10
						Adjusted Per Hour for 2004	\$36.85
Group 7				Group 8			
Gas Power Tool	\$60.60		\$79.39	Aerial Lift Truck, Garbage Truck or Street Sweeper	\$493.60		\$646.62
Pickup (4x4)	\$90.20		\$118.16				
			\$197.55			Per Hour 2002	\$80.83
		Per Hour 2002	\$24.69			Adjusted Per Hour for 2004	\$84.87
		Adjusted Per Hour for 2004	\$25.93				

All Prices from *RSMeans, Site Work and Landscape Cost Data, 21st Annual Edition, 2002* and adjusted for inflation (5% cumulative from 2002) to 2004 dollars

*RSMeans data is based on a national average. Costs are then adjusted to a specific location.

Utility Evaluation	
Electrical Usage	
Total exterior hardscape area:	1,370,486
Total # of 2 luminaire light poles from cost estimate	555
Approximate sq. ft. of building interior as part of park space. Includes bathroom interiors, maintenance facilities and maintenance and security offices. (Light and heat.)	57,590
Approximate sq. ft. of shed structures on the piers. (Light only.)	129,250
# of luminaires for interior areas: each (1 per 55 sf of interior area)	3,397
Average yearly per luminaire light usage of exterior luminaires in hours based on Con Edison Data. See references.	4270
Average yearly per luminaire light usage of interior fixtures in hours based on 16 hours per day	5840
Wattage used for exterior:	
kWhr per lamp post = $250W \times 2 / 1000$. Assume 2 luminaire per lamp post at 250W each.	0.5
# of lamp posts x kWhr/post x hours of total use	1184925
Design contingency -- 40% for feature areas, steps, ramps and accent lighting	473970
Total kW Hours	1658895
Cost per kWhr, Average from ConEd Publication -- \$.1486	\$0.1486
Total Cost for exterior	\$246,511.80
Wattage used for interior office, restroom and maintenance areas	
kWhr per luminaire = $55W / 1000$.	0.055
# of interior luminaires(3398) x kWhr/lamp(0.055) x hours of total use(5840)	1091145.6
Design contingency -- 40% entries, stairs and areas requiring additional lighting.	436458.24
Total kW Hours	1527603.84
Cost per kWhr, Average from ConEd Publication -- \$.1486	\$0.1486
Total Cost for interior	\$227,001.93
Total exterior cost from above	\$246,511.80
Total interior cost from above	\$227,001.93
Total Electrical Cost for Park Lighting	\$473,513.73

Utility Evaluation	
Water Usage	
Irrigation	With Pool
Total all areas to receive irrigation	1,154,767
Square foot area for all trees in hardscape to be irrigated = 630	18900
Total Park area to be irrigated	1,173,667
Total cf of water as applied at 1.35in per sf per week	132,038
Total cf of water as applied at 1.35in per sf per week * 24 weeks	3,168,901
Restrooms	
Total number of restrooms in park (assume 8 stalls per bathroom)	6
6 restrooms x 8 stalls x 19 hours x 20 users per stall per hour x 20% occupancy = 3648 Daily Users	3,648
3648 Daily Users x 2.6 gallons per user (1.6 gal. toilet, 1 gal. Hand washing) x 365 days per year	3,461,952
Convert to cubic feet	462,863
Power washing	
605 hours x 60 minutes x 3.52 gallons per minute	127,776
226 hours x 60 minutes x 10 gallons per minute	135,600
Total gallons used	263,376
Convert to cubic feet	35,213
Drinking Fountains	
Fountains in the park	14
Estimated daily water use based on 3 gallons/person/day	200
Days per year of drinking fountain operation	210
Total gallons used; Yearly water consumption = fountains * use * # of days	588000
Convert to cubic feet	78,616
Water play area water use	
Number of water play areas	2
Estimated water use per day per area in gallons	2,000
Number of days per year that water areas are open, Memorial Day to Labor Day	99
Total Water usage in gallons: (Areas * Daily water use * number of days)	396,000
Total usage in cubic feet	52,945
Total water usage from above, reported in cubic feet	3,798,538
Contingency, 30 % of total use reported above in cubic feet	1,139,561
Total estimated water use	4,938,099
Metered rate for total water usage = \$1.52 / 100 cf	\$75,059.11
Metered rate for total waste water disposal = \$2.42 / 100 cf*	\$119,502.01
Total Cost for Park Water	\$194,561.12
* Note: Separate metering for irrigation and water play area may reduce waste water disposal fee	

Utility Evaluation	
Heating costs using oil	
Square foot area of buildings to be heated	57,590
Use assumption of 131,000 Btus per year per sf to heat Parks' Buildings = required Btus (sf area * 131,000 Btus)	7,544,290,000
Fuel oil provides 138,400 Btus per gallon at 70% efficiency. Dividing required Btus by 138,400 Btus per gallon=gallons of fuel oil required.	54,511
Current fuel oil costs per gallon:	\$1.71
Total estimated cost for Park heat	\$93,213.41

Time Evaluation Sheets

○ Sample Time Evaluation Sheet	1 Page
○ Hardscape Time Evaluation	2 Pages
○ Active Lawn Time Evaluation	2 Pages
○ Display Garden Time Evaluation	1 Page
○ Well Maintained Gardens Time Evaluation	2 Pages
○ General Planting Time Evaluation	2 Pages
○ Wetland, Prairie and Marsh Time Evaluation	2 Pages
○ Rip Rap Maintenance Time Evaluation	1 Page
○ Pier Landscape Time Evaluation	2 Page
○ Safe Water Time Evaluation	1 Page
○ Operations Staff Time Evaluation	1 Page

Sample Time Evaluation

B Activities Involved	C SF Area or Quantity & Unit of Measure Based on quantity per sf or other methods and described on the sheet	D Time to Complete Per Unit of Measure Time to complete the task once and based on data from estimating sources, see references. Can be in minutes or hours.	E Total Time For Item - Once (C X D) Unit of measure times the time to complete once. Given as an hourly measure.	F Frequency by Month J F M A M J J A S O N D Frequency that the task is performed on a monthly basis.	G Frequency Total Per Year (Total of F) Total frequency on a yearly basis	H Time Total Per Year (E x G) Total time for this task on a yearly basis in hours.
Description of Maintenance task						

Hardscape Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year
					J	F	M	A	M	J	J	A	S	O	N	D		
					10	10	10	15	31	30	31	31	30	31	30	16		
Pavement	Pickup of trash	1371 1000 sf	0.5 Min	11 Hours	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	51.96	1392 Hours
	Pickup of hand collected garbage and emptying of trash cans	1 Site	240 Min	4 Hours	10	10	10	15	31	30	31	31	30	31	30	16	275	3142 Hours
	Sweeping (machine)	402 1000 sf	4 Min	27 Hours	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	51.96	1392 Hours
	Powerwashing	605 100 sf	60 Min	605 Hours						0.2	0.2	0.2	0.2	0.2	0.2		1	605 Hours
	Wash paved areas with hose	847 1000 sf	16 Min	226 Hours						0.2	0.2	0.2	0.2	0.2	0.2		1	226 Hours
	Asphalt Repair (coldpatch)	4.9 1000 sf	1111 Min	91 Hours		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	91 Hours
	Concrete Repair	48.3 100 sf	1000 Min	805 Hours		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	805 Hours
	Reset Pavers	48.3 100 sf	700 Min	564 Hours		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	564 Hours
	Touch-up lines and markings on pavement	1 Lamp sum	1 Min	1 Hours				1									1	1 Hours
	General light pole maintenance	555 # of poles	30 Min	278 Hours		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	278 Hours
	Replace light bulbs in fixtures throughout park	1110 # of bulbs, 2 per pole	30 Min	555 Hours		0.1		0.1		0.1							0.5	278 Hours
																		Lump

Hardscape Time Evaluation

Item	Activities Involved	SF Area, or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year	
					J	F	M	A	M	J	J	A	S	O	N	D			
Trees	Prune trees(from truck)	630 each	45 Min	473 Hours		0.25										0.25		0.5	237 Hours
	Fertilizer for trees	630 each	13 Min	137 Hours			0.25	0.25	0.25	0.25								1	137 Hours
	Pest control for trees	630 each	25 Min	263 Hours			0.25	0.25	0.25	0.25								1	263 Hours
	Snow removal (hand)	548.4 1000 sf	160 Min	1462 Hours	2	2	1										1	6	877.4 Hours
Pavement	Snow removal (machine)	274.2 1000 sf	4 Min	18 Hours	2	2	2										2	8	146 Hours
	Spread sand and salt mix	548.4 1000 sf	8 Min	73 Hours	2	2	2										2	8	585 Hours
	Cleaning and maintenance of bathrooms	6	180 Min	18 Hours	9	9	8	30	31	30	31	31	30	31	30	31	8	na	4698 Hours
Interiors	Cleaning and maintenance of classrooms/offices	Each 6	3 Hours	18 Hours	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	52	935 Hours
	Rake and Groom Artificial Turf Fields	166 K sf	30 Minutes	83 Hours	1	1	1	1	2	2	2	2	2	2	2	1	1	18	1494 Hours
Other	Graffiti Removal, assuming use of graffiti resistant coating	1 Each	8 Hours	8 Hours	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	52	416 Hours
	Fountain and water feature maintenance	5 Each	1 Lump Sum	5 Hours			1				0.5				1			3	13 Hours
	Drinking fountain maintenance	14 Each	1 Lump Sum	14 Hours			1				0.5				1			3	35 Hours
	Rodent Control for entire Park	2166 1 trap per 1250 sf	2.5 Minutes per trap	90 Hours	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	52	4690 Hours

Playgrounds Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year	
					J	F	M	A	M	J	J	A	S	O	N	D			
Pavement	Pickup of trash	27 1000 sf	0.5 Min	0 Hours	10	10	10	15	31	31	31	31	31	30	31	30	16	275	62 Hours
	Powerwashing	15 100 sf	60 Min	15 Hours						0.2	0.2	0.2	0.2	0.2	0.2			1	15 Hours
	Wash paved areas with hose	21 1000 sf	16 Min	6 Hours						0.2	0.2	0.2	0.2	0.2	0.2			1	6 Hours
	Asphalt Repair (coldpatch)	0.2 1000 sf	1111 Min	4 Hours		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	4 Hours
	Concrete Repair	1.1 100 sf	1000 Min	18 Hours		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	18 Hours
Pavement	Reset Pavers	1.1 100 sf	700 Min	13 Hours		0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		1	13 Hours
	Touch-up lines and markings on pavement	1 Lump sum	1 Min	1 Hours				1										1	1 Hours
	Snow removal (hand)	26.5 1000 sf	160 Min	71 Hours	2	2	1									1		6	424 Hours
	Snow removal (machine)	26.5 1000 sf	4 Min	2 Hours	2	2	2									2		8	14 Hours
	Spread sand and salt mix	26.5 1000 sf	8 Min	4 Hours	2	2	2									2		8	28 Hours
Trees	Prune trees (from truck)	45 each	45 Min	34 Hours				0.5								0.25		0.75	26 Hours
	Fertilizer for trees	45 each	13 Min	10 Hours			1											1	10 Hours
	Pest control for trees	45 each	25 Min	19 Hours			1											1	19 Hours
	Graffiti Removal, assuming use of graffiti resistant coating	1 Each	8 Hours	8 Hours	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	52	416 Hours
	Raking and cleaning of sand boxes and other areas of loose safety and play materials and general cleaning	3 Each	12 Hours	36 Hours	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	52	1871 Hours
Other	Repainting, repairs and replacement parts for play equipment	1 Lump sum	3 Playgrounds	3 Hours				1										1	3 Hours
	Rodent Control for playgrounds	22 1 trap per 1250 sf	2.5 Minutes per trap	1 trap	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	52	47 Hours
					Once per week														

Total playground area: 26,497
 Trees within playgrounds (1 per 600 sf): 45

Active Lawn Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year
					J	F	M	A	M	J	J	A	S	O	N	D		
Trees	Planting Inspection with Horticultural/TPM manager	395 K sf	5 Minutes	33 Hours			1	2	3	3	3	3	3	3	2	1	24	792 Hours
	Prune trees (from truck)	451 each	65 Min	489 Hours		0.25								0.25			0.5	245 Hours
	Fertilizer for trees	451 each	13 Min	98 Hours				1									2	196 Hours
	Pest control for trees	451 each	25 Min	188 Hours				1		1							3	564 Hours
Active Lawn	Litter Removal	395 K sf	0.5 Min	3 Hours	10	10	10	15	31	30	31	31	30	31	30	16	275	905 Hours
	Mow (self propelled power)	395 K sf	15 Minutes	99 Hours			2	3	6	6	6	6	6	6	6	2	43	4257 Hours
	Fertilizer (push spreader)	395 K sf	15 Minutes	99 Hours				1						1			2	198 Hours
	Weed control (push spreader)	395 K sf	15 Minutes	99 Hours				1	1	1	1	1	1				6	594 Hours
	Rake (sweep rake)	395 K sf	15 Minutes	99 Hours				1	2	3	3	3	2	1			15	1485 Hours
	Edge lawn at paths (gas edger)	49 100 lf	6 Minutes	5 Hours				1		1		1		1			4	20 Hours
	Edge lawn at plant beds (gas edger)	49 100 lf	20 Minutes	17 Hours			2	3	4.33	4.33	4.33	4.33	4.33	4.33	2		33	561 Hours

Active Lawn Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year
					J	F	M	A	M	J	J	A	S	O	N	D		
Active Lawn	Overseed (push spreader)	395	30 Minutes	198 Hours			1		1					1			3	594 Hours
	Aerate (machine)	K sf	30 Minutes	198 Hours				1	1		1		1				5	990 Hours
	Lime (push spreader)	K sf	20 Minutes	132 Hours			1							1			2	264 Hours
	Annual soil tests	K sf	20 Minutes	27 Hours			1										1	27 Hours
Water	Check irrigation heads	395 Each	15 Minutes	99 Hours				1	2	2	3	3	2	1			14	1386 Hours
	Manual control of irrigation	40 each	20 Minutes	14 Hours				1	2	2	3	3	2	1			14	196 Hours
	Check quick couplers/valves	40 Each	30 Minutes	20 Hours			1										1	20 Hours
	Drain/clean/maint. Irrigation	10 Each	240 Minutes	40 Hours				1								1	2	80 Hours
Total Area Active Lawn as sf measure:		394147																
# of trees: 1 per 350 sf of lawn area for 40% of all lawn		451																
Unit of measure: 1000 SF																		

Display Gardens Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year
					J	F	M	A	M	J	J	A	S	O	N	D		
Trees	Planting Inspection with Horticultural/IPM manager	20 K sf	5 Minutes	2 Hours			2	6	6	6	6	6	6	6	3	2	49	98 Hours
	Prune trees(from truck)	56 each	65 Min	61 Hours				0.5								0.5	1	61 Hours
	Fertilizer for trees	56 each	13 Min	13 Hours				1						1			2	26 Hours
	Pest control for trees	56 each	25 Min	24 Hours				1		1							3	72 Hours
Shrubs	Spring Planting Bed Preparation	20 1000 sf	200 Min	67 Hours				1									1	67 Hours
	Spring Planting	20 1000 sf	600 Min	200 Hours				1									1	200 Hours
	Fall Plantings (Bulbs)	20 1000 sf	600 Min	200 Hours											1		1	200 Hours
	Weed (by hand)	20 1000 sf	20 Min	7 Hours				3	3	6	6	6	6	3	3		30	210 Hours
Trash Removal	Weed (pre/post emergent)	20 1000 sf	6 Min	2 Hours			1	1	1	1	1	1	1	1			7	14 Hours
	Prune	20 1000 sf	20 Min	7 Hours				1	1	1	1	1	1	1	1		7	49 Hours
	Fertilizer (broadcast)	20 1000 sf	6 Min	2 Hours				1		1				1			3	6 Hours
	Mulch (hand apply)	20 1000 sf	28 Min	10 Hours			1	1	1	1	1	1	1	1	1		9	90 Hours
Watering	Pest control (systemic)	20 1000 sf	30 Min	10 Hours				1		1					1		3	30 Hours
	Remove trash	20 1000 sf	5 Min	2 Hours	10	10	10	15	31	30	31	31	31	30	31	16	275	550 Hours
	Check irrigation heads	56 1000 sf	15 Min	14 Hours				1	1	1	1	1	1	1	1		7	98 Hours
	Manual control of irrigation	8 each	20 Minutes	3 Hours				1	2	2	3	3	3	2	1		14	42 Hours
Soil Test	Check quick complers/valves	7 each	30 Min	4 Hours				1									1	4 Hours
	Drain/clean/maint. Irrigation	1 Each	240 Minutes	4 Hours				1							1		2	8 Hours
	Annual soil test/evaluation	7 each	30 Min	4 Hours			1										1	4 Hours
	Total Display Garden Area of Park in sq. ft.	19,550																

Total Display Garden Area of Park in sq. ft. 19,550
of trees 1 per 350 sf of display area 56

Well Maintained Gardens Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year in hours	
					J	F	M	A	M	J	J	J	A	S	O	N			D
Trees	Planting Inspection with Horticultural/TPM manager	76 K sf	5 Minutes	7 Hours			1	4	4	6	6	6	6	6	4	2	1	40	280 Hours
	Prune trees(from truck)	217	65	236			0.25									0.5	0.75	177	
	Fertilizer for trees	each	Min	Hours				1									1	48 Hours	
	Pest control for trees*	each	Min	Hours				1									1	91 Hours	
	Spring Planting Bed Preparation	each	Min	Hours															91 Hours
Shrubs	Spring Planting	76 1000 sf	600 Min	760 Hours				1									1	254 Hours	
	Fall Plantings (Bulbs)	76 1000 sf	600 Min	760 Hours													1	760 Hours	
	Weed (by hand)	76 1000 sf	20 Min	26 Hours				2	2	4	4	4	4	2	2		20	520 Hours	
	Weed (pre/post emergent)	76 1000 sf	6 Min. for a three man crew	8 Hours			1	1	1			1					4	32 Hours	
	Prune	76 1000 sf	20 Min	26 Hours				1	1	1		1		1			4	104 Hours	
	Fertilizer (broadcast)	76 1000 sf	6 Min. for a three man crew	8 Hours						1							3	24 Hours	
	Mulch (hand apply)	76 1000 sf	28 Min	36 Hours			1		1		1	1		1		1	5	180 Hours	
	Pest control (systemic)	76 1000 sf	30 Min	38 Hours				1				1					3	114 Hours	
			1000 sf	Min	Hours														Hours
					Hours														Hours

Well Maintained Gardens Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year in hours	
					J	F	M	A	M	J	J	A	S	O	N	D			
Trash Removal	Remove trash	76	5	7	10	10	10	15	31	30	31	31	31	30	34	30	16	275	1925
	Check irrigation heads	1000 sf 217	Min 15	Hours 55				1	1	1	1	1	1	1	1			7	385
Watering	Manual control of irrigation	Each 13	Minutes 20	Hours 5				1	2	2	3	3	3	2	1			14	70
	Check quick couplers/valves	each 26	Min 30	Hours 13				1										1	13
	Drain/clean/maint. Irrigation	each 3	Min 240	Hours 12				1								1		2	24
	Annual soil test/evaluation	Each 26	Minutes 30	Hours 13			1											1	13
Soil Tests		each 75,878	Min	Hours															Hours

Total sf of Well Maintained Area of Park 75,878

of trees 1 per 350 sf of well maintained ar 217

* Not annual task - emergency only but assume 1 per year for estimate purposes

General Planting Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year in hours
					J	F	M	A	M	J	J	A	S	O	N	D		
Trees	Planting Inspection with Horticultural/IPM manager	516 K sf	5 Minutes	43 Hours			1	2	2	3	3	3	3	2	2	1	22	946 Hours
	Prune trees (from truck)	2577	65 Min	2792 Hours			0.25									0.25	0.5	1396 Hours
	Fertilizer for trees	each	Min	Hours				1									1	1 Hours
	Pest control for trees*	each	Min	Hours				1									1	1074 Hours
Shrubs	Weed (by hand)	516	20 Min	172 Hours				1	1	2	2	2	1	1			10	1720 Hours
	Weed (pre/post emergent)	1000 sf	Min. for a three man crew	Hours														
		516	6 Min	52 Hours			1	1	1			1					4	208 Hours
	Prune	1000 sf	Min	Hours				1										
		516	20 Min	172 Hours				1		1		1		1			4	688 Hours
	Fertilizer (broadcast)	1000 sf	Min. for a three man crew	Hours														
		516	6 Min	52 Hours				1		1			1				3	156 Hours
	Mulch (hand apply)	1000 sf	Min	Hours														
		516	28 Min	241 Hours			1		1		1		1		1		5	1205 Hours
	Pest control (systemic)	1000 sf	Min	Hours														
		516	30 Min	258 Hours				1			1				1		3	774 Hours
		1000 sf	Min	Hours														

General Planting Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year in hours
					J	F	M	A	M	J	J	A	S	O	N	D		
Trash Removal	Remove trash	516	5	45	1	1	3	8	8	8	8	8	8	4	4	2	63	2709
	Check irrigation heads	1000 sf 1473	Min 15	Hours 369				1	1	1	1	1	1	1			7	Hours 2583
Watering	Manual control of irrigation	Each 18	Minutes 20	Hours 6				1	2	2	3	3	2	1			14	Hours 84
	Check quick couplers/valves	each 172	Min 30	Hours 86				1									1	Hours 86
	Drain/clean/maint. Irrigation	each 18	Min 240	Hours 72				1							1		2	Hours 144
	Annual soil test/evaluation	Each 172	Minutes 30	Hours 86			1										1	Hours 86
Total sf of Tree Cover with Planting Area		515,225																
# of trees	1 per 200 sf of general planting at	2577																

* Not annual task - emergency only but assume 1 per year for estimate purposes

Wetland and Marsh Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year in hours
					J	F	M	A	M	J	J	A	S	O	N	D		
	Planting Inspection with Horticultural/TPM manager	83	5 Minutes	7 Hours			1	3	3	3	3	3	3	3	3	1	26	182 Hours
	Prune trees (from truck)	412	65 Minutes	447 Hours				0.25								0.25	0.5	224 Hours
Trees	Fertilizer for trees	each	Min	Hours				1									1	90 Hours
	Pest control for trees*	each	Min	Hours				1									1	172 Hours
	Weed (by hand)	83	20 Minutes for a three man crew	28 Hours				2	2	4	4	4	2	2			20	560 Hours
	Weed (pre/post emergent)	1000 sf	6 Minutes	9 Hours			1		1			1					3	27 Hours
Shrubs and other wetland plantings	Prune	1000 sf	Min	Hours				1						1			2	56 Hours
	Fertilizer (broadcast)	1000 sf	Minutes for a three man crew	Hours													2	Hours
	Mulch (hand apply)	83	6 Minutes	9 Hours				1					1				2	18 Hours
	Pest control (systemic)	1000 sf	Min	Hours													2	78 Hours
	Remove trash	83	28 Minutes	39 Hours			1										2	84 Hours
	Annual soil test/evaluation	1000 sf	30 Minutes	42 Hours				1									2	84 Hours
Trash Removal	Remove trash	83	5 Minutes	7 Hours	1	1	3	4	5	4	5	4	5	4	4	2	42	294 Hours
Soil Test	Annual soil test/evaluation	28 each	30 Minutes	14 Hours			1										1	14 Hours

Wetland and Marsh Area 82,313

of trees 1 per 200 sf of wetland, prairie and marsh area 412

* Not annual task - emergency only but assume 1 per year for estimate purposes

Rip Rap Maintenance Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year	
					J	F	M	A	M	J	J	I	A	S	O	N			D
All Maintenance	Pickup and disposal of garbage	74	5	6	2	2	2	4	8	8	8	8	8	8	8	4	4	66	407
	Spring repairs to rip rap due to ice damage	1000 sf	Min	Hours				1										1	Hours
	Plantings repair	42	45	32			1		1						1			3	Hours
	Fertilize rip rap plantings	1000 sf	Min	Hours														1	Hours
		42	20	14				1											14
Total unplanted rip rap area:		1000 sf	Min	Hours															Hours
Total unplanted rip rap area:		32,377																	
Total planted rip rap area:		41,027																	
Total rip rap area:		73,404																	

Pier Landscape (Comparable to intensive roof)

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year in hours
					J	F	M	A	M	J	J	A	S	O	N	D		
Trees	Planting Inspection with Horticultural/IPM manager	150 K sf	5 Minutes	13 Hours			1	3	3	3	3	3	3	3	1	1	24	312 Hours
	Prune small trees	750 each	30 Min	375 Hours			0.25									0.25	0.5	188 Hours
	Fertilizer for trees	750 each	10 Min	125 Hours				1									1	125 Hours
	Pest control for trees*	750 each	15 Min	188 Hours				1									1	188 Hours
Shrubs	Weed (by hand)	150 1000 sf	20 Min. for a three man crew	50 Hours				2	2	4	4	4	2	2			20	1000 Hours
	Weed (pre/post emergent)	150 1000 sf	6 Min	15 Hours			1	1	1			1					4	60 Hours
	Prune	150 1000 sf	20 Min	50 Hours				1	1	1		1		1			4	200 Hours
	Fertilizer (broadcast)	150 1000 sf	6 Min	15 Hours				1					1				3	45 Hours
	Mulch (hand apply)	150 1000 sf	28 Min	70 Hours			1		1			1	1		1		5	350 Hours
	Pest control (systemic)	150 1000 sf	30 Min	75 Hours				1				1			1		3	225 Hours

Pier Landscape (Comparable to intensive roof)

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year in hours
					J	F	M	A	M	J	J	A	S	O	N	D		
Remove trash		150	5	13	1	1	1	2	3	3	3	3	3	3	2	1	26	338
Check irrigation heads		1000 sf	Min	Hours				1	1	1	1	1	1	1			7	Hours
Manual control of irrigation		429	15	108				1	2	3	3	3	3	3	2		14	Hours
Check quick couplers/valves		5	20	2				1	2	2	3	3	2	1			1	28
Drain/clean/maint. Irrigation		50	Min	Hours				1									1	Hours
Annual soil test/evaluation		5	240	20				1							1		2	40
Soil Tests		50	Minutes	Hours				1									1	Hours
		each	30	25			1										1	25
Total sf of Pier Landscape Areas of Park				149,967														Hours
Total approximate sf of Intensive Garden Areas				149,967														100% of total
Total approximate sf of Extensive Garden Areas				0														0% of total
# of trees: 1 per 200 sf of Intensive pier or roof area				750														

* Not annual task - emergency only but assume 1 per year for estimate purposes

Safe Water Area Maintenance*

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year
					J	F	M	A	M	J	J	I	A	S	O	N		
Safe Water Area Maintenance	Pickup and disposal of garbage on water	113	45	84	4	4	4	8	8	8	8	8	8	8	8	4	80	6756
	Resetting buoys, wave attenuators and float bridges	1000 sf 1	Min 480	Hours 8	2	2	2	2	2	2	2	2	2	2	2	2	24	Hours 192
		Area	Min	Hours														Hours

*Does not include water or amenities within the marina.

Operations Staff Time Evaluation

Item	Activities Involved	SF Area or Quantity & Unit of Measure	Time to Complete Per Unit of Measure	Total Time For Item - Once	Frequency by Month												Frequency Total Per Year	Time Total Per Year
					J	F	M	A	M	J	J	A	S	O	N	D		
Parkwide Security	Unarmed Security	6 Guards per day (Average)	19 Hours	114 Hours	31	28	31	30	31	31	31	31	30	31	30	31	365	41610 Hours
	Armed Security	2 Guards per day (Average)	19 Hours	38 Hours	31	28	31	30	31	31	31	31	30	31	30	31	365	13870 Hours
	Mechanic	1 Guards per day (Average)	8 Hours	8 Hours	22	18	23	22	21	22	22	22	22	21	22	23	260	2080 Hours
	Mechanic Assistant	1	8 Hours	8 Hours	22	18	23	22	21	22	22	22	22	21	22	23	260	2080 Hours
Programming	Park Manager	1	8 Hours	8 Hours	22	18	23	22	21	22	22	22	22	21	22	23	260	2080 Hours
	Park Recreation Supervisor	1	8 Hours	8 Hours	22	18	23	22	21	22	22	22	22	21	22	23	260	2080 Hours
	Park Recreation Activities Specialist	7	8 Hours	56 Hours	22	18	23	22	21	22	22	22	22	21	22	23	260	14560 Hours
	Life Guards for Kayaking Area	2 Lifeguards per day (Average)	10 Hours	20 Hours	0	0	0	0	0	31	31	31	30	31	7	0	191	3820 Hours

BBPDC EQUIPMENT TO PURCHASE WITH IN HOUSE MAINTENANCE

Task	Equipment	Estimated Quantity	Cost	Total Cost
Landscape Maintenance	Terex multi terrain articulating boom lift, 60'	1	\$80,500.00	\$80,500.00
	Vermeer BC935, gas power, 9" capacity, 35-50HP, 3660 lbs	1	\$19,000.00	\$19,000.00
	Bobcat	1	\$60,000.00	\$60,000.00
	Lawnmowers	40	\$2,000.00	\$80,000.00
Multi-Use	3 ton truck, pickup, unmodified	7	\$35,000.00	\$245,000.00
	1.5 ton truck, pickup, unmodified	3	\$29,000.00	\$87,000.00
	All Hand and Power tools	Lump	\$20,000.00	\$20,000.00
	All Equipment for Basic Maintenance of vehicles and equipment	Lump	\$40,000.00	\$40,000.00
	Taylor Dunne	15	\$15,000.00	\$225,000.00
	Toyota Prius	16	\$26,000.00	\$416,000.00
Roadway Protection	Arrowboard	3	\$4,000.00	\$12,000.00
	Traffic Cones	100	\$12.00	\$1,200.00
	Traffic Signs and Barriers, Wood, Metal and Plastic	Lump	\$20,000.00	\$20,000.00
Upgrades	Body Revisions	7	\$2,850.00	\$19,950.00
	Hitch, controllers and rings	10	\$475.00	\$4,750.00
	Underbody Toolbox	5	\$285.00	\$1,425.00
	Tarp System	4	\$650.00	\$2,600.00
	Sand and Salt Spreader	5	\$4,225.00	\$21,125.00
	Snowplow	5	\$4,230.00	\$21,150.00
	Pavement Cleaner	1	\$100,000.00	\$100,000.00
	16 CY Packer Garbage Trucks	2	\$70,000.00	\$140,000.00
Total				\$1,616,700.00

Prices above do not include insurance, modifications installment fees, taxes or operating costs*

*Operating costs are included within the Maintenance and Operations Budget

Capital Maintenance Definition

Under the heading "Annual Landscape Maintenance" it was assumed that all necessary repairs and work could be performed on a routine basis, could be performed by in-house staff and would not result in major disruption to park users.

Included in this routine work are the following:

- Graffiti removal
- Bench slat repair, timber deck/boardwalk minor carpentry repairs
- Replacement of swing seats, basketball hoops, volleyball nets, wind screens
- Changing light bulbs (interior and exterior)
- Repairing minor bathroom leaks, toilet clogs, faucet handles
- Touch-up painting on fencing or furnishings, minor welding
- Annual replacement plantings for dead shrubs, grasses, perennials
- Resetting uneven stone, asphalt or concrete pavers, raking and overspreading compacted stone dust, minor asphalt pothole repair
- Repair of irrigation heads or drip lines, adjusting valves
- Cleaning catch basins, drainage structures, installing new grates
- All horticultural tasks except major tree replacement

Capital maintenance is work that can not be done on a daily basis, would cause a significant disruption to park users by having portions of the park closed for longer than a few days and would normally be considered work that would be bid out, performed by specialized crews or requiring equipment not owned by the park.

Included in this category are the following:

- Repair of pier drainage ball valves (divers required)
- Repointing of stone or masonry surfaces (scaffolding or closed access required)
- Mechanical system overhauls and replacement (buildings, bathrooms, irrigation main lines, drinking fountains)
- Resurfacing asphalt pavement, applying new color seal coat, replacement of concrete walks, installation of safety surface, installation of artificial turf, resetting large areas of stone, asphalt or concrete pavers
- Replacement of damaged light poles, ballasts, site furnishings (anchored in footings), play equipment units, basketball backstops
- Replacement or major repair to any structure, roof, shade cover
- Major tree replacements
- Major fence repair or replacement (new chain link fabric, railing posts, cables, top rails)

Security Staffing Levels - Daily and Nightly by Month													

LEVELS OF SERVICE from PROFESSIONAL GROUNDS MANAGEMENT SOCIETY

Level	Grass height for sports lawn areas maintained through cutting once every three to five days. Aeration 4 times per year minimum. Reseed and re-sod as needed. No more than 1% weed growth tolerated.	Adequate fertilization applied to all plant species timed for even nutrient supply throughout the year.	Sprinkler irrigated with adjustments throughout the year according to growing season, temperature, rainfall, etc.	Minimum litter pickup once per day, 7 days per week. High use areas to be revisited throughout each day.	According to best practices for trees and shrubs planned to accentuate special features of plant material and conform to the design concept.	Avoid public awareness of any problems. Requires frequent observation to catch problems before they become significant.	Same day removal as soon as 5 inches has accumulated. Surfaces cleared by noon of day following snowfall event. (For BBP, 40% of hardscape areas are to be cleared.)	Sweep, clean and wash all surfaces so that at no time does sand, dirt or leaves distract from appearance or safety.	Inspections to occur daily.	Ground level as well as hanging baskets, window boxes and planters of seasonal interest to be changed throughout the year including through the winter.	Fulltime monitoring of restrooms by attendant, seven days per week.	24 hour surveillance with both armed and unarmed guards and all portions of park patrolled. May include CCTV monitoring.
Level 1	Grass height for active lawn areas maintained through cutting once every five days. Aeration 2 times per year minimum. Reseed and re-sod when bare spots form. No more than 5% weed growth tolerated.	Adequate fertilization applied to all plant species correspond to at least the lowest recommended level.	Sprinkler irrigated with adjustments throughout the year according to growing season, temperature, rainfall, etc.	Minimum litter pickup once per day, 5 days per week except for areas of high use.	Once per season unless necessary due to plant species.	Performed when damage is noticeable to the public. Preventative measures are allowable and minor problems will be tolerated.	Surfaces cleared by noon of day following snowfall event. (For BBP, 40% of hardscape areas are to be cleared.)	Clean, repair, repaint and replace surfaces when appearance is noticeably deteriorated.	Once per day during regular staffing schedule.	Two rotations of material per year.	Daily April thru November, 2 shifts of 90 minutes each. Weekends only in winter with 1 90 minute shift.	Less than 24 hour surveillance with both armed and unarmed guards. Not all portions of park patrolled at all times. May include some CCTV monitoring.

Shaded areas reflect average maintenance levels assumed for Brooklyn Bridge Park in the Maintenance and Operations Plan. Reference: Professional Grounds Management Society, *Grounds Maintenance Estimating Guidelines*, 7th Edition, 1995

LEVELS OF SERVICE from PROFESSIONAL GROUNDS MANAGEMENT SOCIETY

Level	Grass Care	Fertilizing	Watering	Pruning	Planting and Removal	Snow Removal	Repairs	Inspections	Planting	Restrooms	Security	
Level 3	Grass height maintained through cutting once every ten days. No aeration. Reseed and reseed major bare spots only. No more than 50% weed growth in small areas or 15% overall tolerated.	1/2 the normally recommended levels at most once per year.	No automatic systems. Manual water application during droughts.	Minimum litter pickup of 2-3 times per week except for areas of high use.	When required for health or appearance, usually once every three years.	Only for epidemics or to save plant material which may die.	Minimal snow removal adhering to local ordinances. Some walkways not cleared at all.	Clean based on complaints. Repair and replace according to budget.	Once per week.	Existing plantings only.	Daily April thru November, 1 shift of 90 minutes each. Weekends only in winter with 1 90 minute shift.	Security for majority of park use day. Limited or no security at night. CCTV not used.
Level 4	Periodic mowing only. No aeration or fertilization. Weed control not performed.	None.	None.	Once per week.	Only for safety issues.	None except where problem is epidemic and threatens the public.	Minimal snow removal adhering to local ordinances. Some walkways not cleared at all.	Repair and replace when safety is a concern according to budget.	Once per month.	Existing plantings only.	Every other day April thru November, 1 shift of 90 minutes each. Weekends only in winter with 1 90 minute shift.	Security only for those portions of the park receiving heavy use. Some portions of the park closed or not monitored.
Level 5	Periodic mowing only. No aeration or fertilization. Weed control not performed.	None.	None.	On demand or complaint basis.	Only for safety issues.	None except where problem is epidemic and threatens the public.	Minimal snow removal adhering to local ordinances. Some walkways not cleared at all.	Service for safety only.	Once per month.	Existing plantings only.	Restrooms opened and cleaned only for events.	Security only for events.
Level 6	No mowing. No aeration or fertilization. Weed control not performed.	None.	None.	On demand or complaint basis.	Only for safety issues.	None except where problem is epidemic and threatens the public.	Only as necessary.	Service for safety only.	Once per month.	Existing plantings only.	Restrooms opened and cleaned only for events.	Security only for events.

Reference: Professional Grounds Management Society, *Grounds Maintenance Estimating Guidelines*, 7th Edition, 1995

Total Hours per Employee Type for all Park Areas with Concessions and closed piers at night

	J	F	M	A	M	J	J	A	S	O	N	D
Park Worker 1	1321	1321	1514	2235	2745	3531	3632	3568	2740	3290	1878	1169
Park Worker 2	437	437	2401	3575	2450	3255	3305	3291	2659	2634	1704	1968
Park Worker 3	172	294	2428	10464	1594	3142	2430	2968	1875	5680	1315	1763
Park Supervisor 2	250	250	544	5132	2585	3435	2890	3379	2827	2352	1666	250
Park Patrol	3534	3192	3534	3420	3534	3420	3534	3534	3420	3534	3420	3534
Sergeant, Park Patrol	1178	1064	1178	1140	1178	1140	1178	1178	1140	1178	1140	1178
Mechanic	176	144	184	176	168	176	176	176	176	168	176	184
Mechanic Apprentice	176	144	184	176	168	176	176	176	176	168	176	184
Park Manager	176	144	184	176	168	176	176	176	176	168	176	184
Park Recreation Supervisor	176	144	184	176	168	176	176	176	176	168	176	184
Park Recreation Activities Specialist	1232	1008	1288	1232	1176	1232	1232	1232	1232	1176	1232	1288
Life Guards for Kayak School	0	0	0	0	0	600	620	620	600	620	140	0
Raw Hours	8827	8141	13623	27902	15934	19859	18905	19854	16597	20516	13059	11887
Working Days per Month	31	28	31	30	31	30	31	31	30	31	30	31

Staff Levels: Total # of People per job classification

	J	F	M	A	M	J	J	A	S	O	N	D
Park Worker 1	6	7	7	11	13	17	17	16	13	15	9	5
Park Worker 2	2	2	11	17	11	15	15	15	13	12	8	9
Park Worker 3	1	2	11	50	7	15	11	14	9	26	6	8
Park Supervisor 2	1	1	3	24	12	16	13	16	13	11	8	1
Park Patrol	16	16	16	16	16	16	16	16	16	16	16	16
Sergeant, Park Patrol	5	5	5	5	5	5	5	5	5	5	5	5
Mechanic	1	1	1	1	1	1	1	1	1	1	1	1
Mechanic Apprentice	1	1	1	1	1	1	1	1	1	1	1	1
Park Manager	6	5	6	6	5	6	6	6	6	5	6	6
Park Recreation Supervisor	1	1	1	1	1	1	1	1	1	1	1	1
Park Recreation Activities Specialist	6	5	6	6	5	6	6	6	6	5	6	6
Life Guards for Kayak School	0	0	0	0	0	3	3	3	3	3	1	0
Total staff level	41.0	42.0	63.0	133.0	74.0	95.0	88.0	92.0	80.0	95.0	63.0	55.0

53 Average staff level, November - March

94 Average staff level, April - October

41 Difference = Seasonal Staffing Requirement

Hourly Staff Requirements

Staff Type	Hours per Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Hardscape	Park Worker 1	931.6	931.6	510.3	105.4	214.0	242.3	245.6	245.6	245.6	154.8	530.0
	Park Worker 2	436.6	436.6	400.6	1192.6	1228.6	1192.6	1228.6	1192.6	1228.6	1192.6	400.6
	Park Worker 3	171.7	294.1	231.1	261.4	262.4	321.4	262.4	325.4	325.4	258.4	195.7
	Park Supervisor 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Playgrounds	Park Worker 1	103.9	103.9	103.9	103.9	103.9	103.9	103.9	103.9	103.9	103.9	103.9
	Park Worker 2	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6
	Park Worker 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Park Supervisor 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Active Lawns	Park Worker 1	114.3	114.3	2005.3	3018.4	4947.4	3917.0	4504.4	3928.4	4250.0	1090.8	182.8
	Park Worker 3	0.0	0.0	941.0	993.0	0.0	653.0	0.0	653.0	340.0	0.0	849.0
	Park Supervisor 2	230.0	230.0	460.0	2171.0	2246.0	3129.0	3254.0	3907.0	2476.0	740.0	230.0
Display Gardens	Park Worker 1	330.0	330.0	515.0	1208.0	1736.0	2099.0	2132.0	2132.0	1736.0	1175.0	528.0
	Park Worker 2	0.0	0.0	795.5	958.0	713.0	1109.0	1109.0	1109.0	958.0	185.0	610.5
	Park Worker 3	0.0	0.0	901.5	6973.0	753.0	1857.0	1149.0	1619.0	1038.0	383.0	610.5
	Park Supervisor 2	132.0	132.0	238.0	2058.0	1410.0	2316.0	1714.0	2184.0	1648.0	706.0	132.0
Well Maintained Gardens	Park Worker 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Park Worker 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Park Worker 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Park Supervisor 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General Planting	Park Worker 1	2.0	2.0	16.0	30.0	33.0	37.0	40.0	37.0	33.0	18.0	4.0
	Park Worker 2	0.0	0.0	36.8	36.0	17.0	21.0	24.0	21.0	17.0	10.0	53.5
	Park Worker 3	0.0	0.0	42.8	91.0	19.0	23.0	34.0	23.0	19.0	20.0	53.5
	Park Supervisor 2	4.0	4.0	10.0	103.0	46.0	50.0	60.0	52.0	50.0	26.0	4.0

Hourly Staff Requirements

Staff Type	Hours per Month											
	J	F	M	A	M	J	A	S	O	N	D	
Wetlands and Prairie	Park Worker 1	50.0	50.0	427.0	794.0	646.0	992.0	1042.0	992.0	1181.0	477.0	100.0
	Park Worker 2	0.0	0.0	1077.8	1235.0	396.0	792.0	792.0	792.0	594.0	277.0	800.8
	Park Worker 3	0.0	0.0	1138.8	2823.0	456.0	792.0	792.0	852.0	594.0	573.0	800.8
	Park Supervisor 2	100.0	100.0	259.0	2574.0	942.0	882.0	894.0	954.0	870.0	840.0	100.0
Pier Landscape	Park Worker 1	7.0	7.0	46.0	98.0	116.0	161.0	172.0	161.0	116.0	53.0	7.0
	Park Worker 2	0.0	0.0	90.5	153.0	95.0	140.0	151.0	140.0	95.0	39.0	103.0
	Park Worker 3	0.0	0.0	113.5	316.0	104.0	149.0	193.0	149.0	104.0	81.0	103.0
	Park Supervisor 2	14.0	14.0	37.0	391.0	187.0	187.0	222.0	189.0	176.0	94.0	14.0
Rip Rap	Park Worker 1	25.0	25.0	25.0	200.0	100.0	100.0	100.0	100.0	100.0	50.0	50.0
	Park Worker 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Park Worker 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Safe Water	Park Worker 1	260.0	260.0	260.0	504.1	504.1	504.1	504.1	504.1	504.1	504.1	260.0
	Park Worker 3	260.0	260.0	260.0	504.1	504.1	504.1	504.1	504.1	504.1	504.1	260.0
Operation Staff	Park Patrol	3534.0	3192.0	3534.0	3420.0	3534.0	3420.0	3534.0	3534.0	3420.0	3420.0	3534.0
	Sergeant, Park Patrol	1178.0	1064.0	1178.0	1140.0	1178.0	1140.0	1178.0	1178.0	1140.0	1140.0	1178.0
	Mechanic	176.0	144.0	184.0	176.0	188.0	176.0	176.0	176.0	168.0	176.0	184.0
	Mechanic Apprentice	176.0	144.0	184.0	176.0	188.0	176.0	176.0	176.0	168.0	176.0	184.0
	Park Manager	176.0	144.0	184.0	176.0	188.0	176.0	176.0	176.0	168.0	176.0	184.0
	Park Recreation Supervisor	176.0	144.0	184.0	176.0	188.0	176.0	176.0	176.0	168.0	176.0	184.0
	Park Recreation Activities Specialist	1232.0	1008.0	1288.0	1232.0	1176.0	1232.0	1232.0	1232.0	1176.0	1232.0	1288.0
	Life Guards for Kayak School	0.0	0.0	0.0	0.0	620.0	600.0	620.0	620.0	600.0	140.0	0.0

Maintenance Space Comparison Between BBP, Central Park and HRPT

	CP 79th St. Yard		HRPT Current Facilities Plan		Proposed BBP Facilities Plan
Administration					
Office Space	1,150		1,500		1,500
Locker Rooms	2,200		1,500		1,500
Toilets	500		350		500
Meeting/Training/Lunch Room	740		1,000		1,000
Security Administration			800		1,000
Publicly Accessible Office Area* *For permits, security, etc.					500
Administrative Subtotal	4,590		5,150		6,000
Maintenance Areas					
Horticulture Storage	616		1,000		500
Vehicle Repair	685		1,200		1,200
Restoration Shop	860		1,500		1,500
General Storage	370		2,000		3,500
Bench Slats and Material Storage	300		750		750
Store Room	475		1,000		500
Volunteer Storage	160		800		800
Event Support Storage			350		350
Maintenance Subtotal	3,466		8,600		9,100
Total Building Area	8,056		13,750		15,100
Flexible Exterior Area	18,000		7,500		7,500
Total Primary Maintenance Area	26,056		21,250		22,600
Satellite Areas *					
Satellite Interior Maintenance Areas*	20,000		5,125		1,200
Satellite Exterior Maintenance Areas*			4,500		1,500
Total Maintenance Area	46,056		30,875		25,300
86th Street Shops (Trades)	25,000				

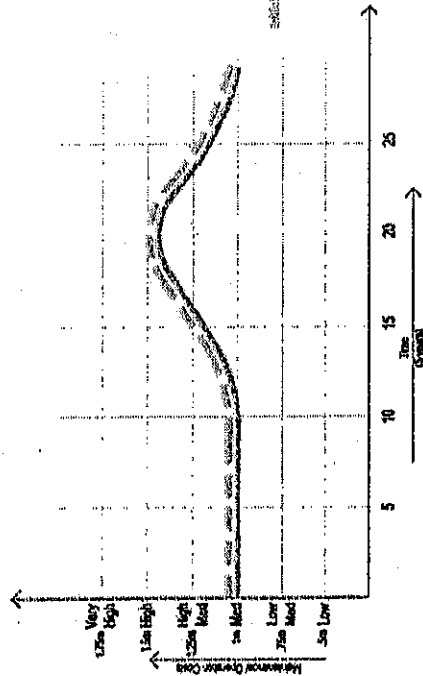
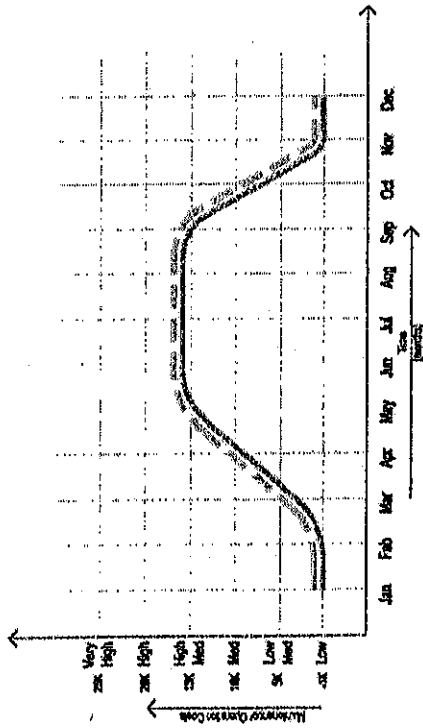
* For CP- Mineral Springs, Ramble, 86th Street Shops, Hecksher, Harlem Meer

* For HRPT- Smaller facilities located throughout the Park

Proposed BBP Primary Facility	
Overall Size	22,500 - 24,000 sf.
Interior Area	15,500 sf.
Exterior Area	7,500 sf.
Interior Space	
Admin.	1,500 sf. for desk, chair and filing cabinets
Lockers	1,500 sf. -12- 12"x18"x18" stacked lockers, 2-3' benches
Shower	350 sf. for toilet, sink and shower stall
Locked Storage	500 sf. for chemical storage with area drain.
Open Storage	3,500 sf. of open area, wall space for shelves, tool hanging and spare parts
Slop sink	25 sf. area for sink and clean up
Eye wash area	Allow for eye wash unit
Special Needs:	100 sf. for cold trash storage; 36"-42" doors allowing for equipment needs.
Restoration Shop	1,500 sf.
Vehicle Repair	1,200 sf.
Spare Parts Storage	750 sf.
Volunteer Storage	800 sf.
PEP Area	
Total Area	1,000 sf.
Dimensions	Desk, filing cabinets, chairs pin-up area
Special needs:	Locked cabinet for storing and charging walkie-talkies (15 sf.)
Event Support Storage	
Area	350 sf. of locked storage
Dimensions	
Adjacencies	
Special needs	Shelves, cabinets, layout table
Systems	
Water:	Hot & cold water for sink and slop sink (assume large drain)
Lighting	Task lighting and office lighting
Communications	
Phone	Yes
Alarm	Alarm
Electric:	220 V, 3 phase for chilled trash storage, 110 V for office and storage areas
	Required
HVAC	Required
Access Requirements	
Public Access	Public access required to all areas as part of deliveries, vehicle maintenance, training programs, PEP activities, volunteer organizations, etc.
Storage Access	Doors should be a minimum of 3'
Vehicle storage	75 sf. for up to 3 golf carts or 2 electric work vehicles
Exterior Area	7,500 sf of hardscape area adjacent to and/or in facility to allow for temporary and overnight parking of park vehicles (approximately 20 vehicles, dependent on parking layout), material and supply deliveries. Allow for the temporary storage of 20 CY containers.
Vehicle Access	
Temporary Storage	

Proposed BBP Secondary Facility	
Overall Size	2,500-2,700 sf.
Interior Area	1,200 sf.
Exterior Area	1,500 sf.
Interior Space	
Admin.	100 sf. for desk, chair and filing cabinets
Lockers	175 sf. -12- 12"x18"x18" stacked lockers, 2-3' benches
Shower/Toilet	35 sf. for toilet, sink and shower stall
Locked Storage	150 sf.
Open Storage	150 sf. of open area, wall space for shelves and/or tool hanging
Slop sink	25 sf. area for sink and clean up
Eye wash area	Allow for eye wash unit
Special Needs:	100 sf. for chilled trash storage area; Doors should be 3'0" -42" to allow for equipment needs.
PEP Area	
Total Area	175 sf.
Admin area	Desk, filing cabinets, chairs pin-up area
Special needs:	Locked cabinet for storing and charging walkie-talkies (15 sf.)
Event Support Storage	
Area	350 sf. of locked storage
Dimensions	
Adjacencies	
Special needs	Shelves, cabinets, layout table
Systems	
Water:	Hot & cold water for sink and slop sink (assume large drain)
Lighting	Task lighting and office lighting
Communications	
Phone	Yes
Alarm	Alarm
Electric:	220 V, 3 phase for chilled trash storage, 110 V for office and storage areas
HVAC	Required
Access Requirements	
Public	No public access
Storage Access	Doors should be a minimum of 3'
Vehicle storage	75 sf. for up to 3 golf carts or 2 electric work vehicles
Exterior Area	1,500 sf. of hardscape area adjacent to facility to allow for temporary parking of small vehicles and drop off of materials and supplies
Vehicle Access	Provide turn-around and access for deliveries and/or loop circulation, allow for temporary storage of 20 CY container
Temporary Storage	

Proposed BBP Tertiary Facility	
Overall Size	500 sf.
Interior Area	500 sf.
Exterior Area	500-800 sf. of flexible hardscape near facility
Interior Space	
Admin.	100 sf. for desk, chair, file cabinet
Lockers	12 wall mounted lockers 12" x 18" x 18" totaling 18 sf. of wall space
Shower	6 sf. area for shower stall
Locked Storage	Locked steel cage area of 150 sf.
Open Storage	Open storage area totaling 150 sf.
Slop sink	4 sf. area
Eye wash area	Eye wash unit
Special Needs:	Open space; no partitions; wall space for shelves, hooks, Access to restrooms
PEP Area	Sub-station area included in M&O admin space.
Total Area	Desk and phone that can be shared with M&O
Dimensions	
Special needs:	Phone, locked cabinet for charging of radios
Event Support Storage	
Area	
Dimensions	100 sf. of lockable storage space
Adjacencies	
Special needs	
Systems	
Water:	Hot & cold water at slop sink
Lighting	Task lighting and overall lighting for admin office and storage areas
Communications	
Phone	Yes
Alarm	Facility should be alarmed
Electric:	220 V in M & O storage and 110 V in admin & events area
HVAC	Required
Access Requirements	
Public	No access required
Storage Access	Doors should be a 3'0" to 2"
Vehicle storage	No vehicle storage
Exterior Area	500-800 sf. of hardscape area adjacent to facility to allow for
Vehicle Access	parking of small vehicles and drop off of materials and supplies.
Temporary Storage	Provide turn-around area for vehicles or "one way" circulation.



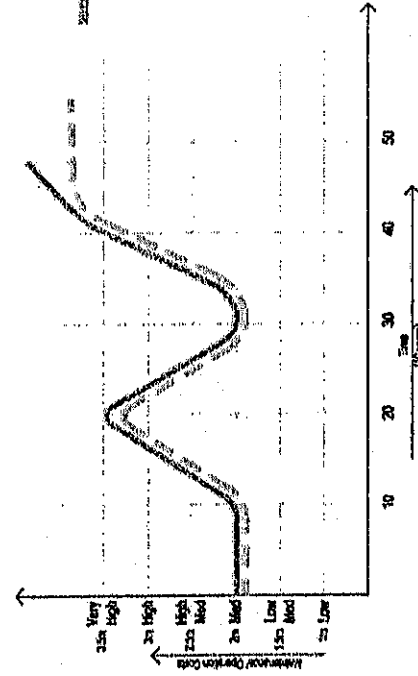
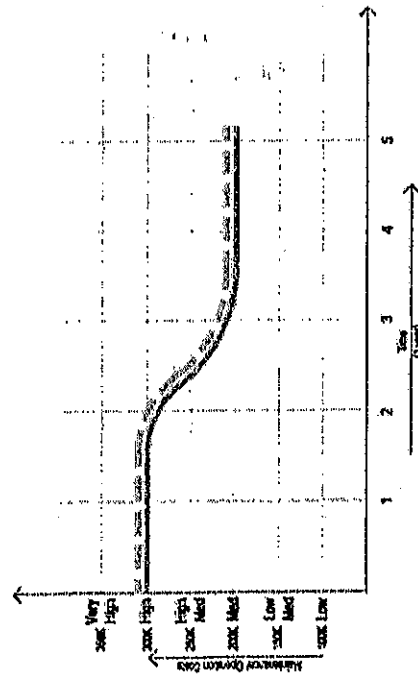
LEGEND

FURNISHINGS

- benches
- tables/ chairs
- trash cans
- drinking fountains
- lights
- signage
- bicycle racks
- bollards
- railings

STRUCTURES

- maintenance facilities
- operation offices
- restrooms
- information booths
- concessions
- classrooms



NOTES:

- * UPKEEP AND REPAIR WOULD BE ELAVATED DURING HEIGHTENED USE.
- * ASSUMES INITIAL BREAK IN AND REPLACEMENT PERIOD PRIOR TO A STEADIER EXPECTED MAINTENANCE AND REPLACEMENT COST.
- * ASSUMES 20 YEAR LIFE CYCLE FOR MAJORITY OF PARK EQUIPMENT AND INTERIORS. FOR EXAMPLE, BUILDINGS - MAJOR REPAIR AND RENOVATION (MECHANICAL SYSTEM, ROOF, ETC.)
- * PIERS - MAJOR REPAIR AND/ OR REPLACEMENT - EVERY 50 YEARS.

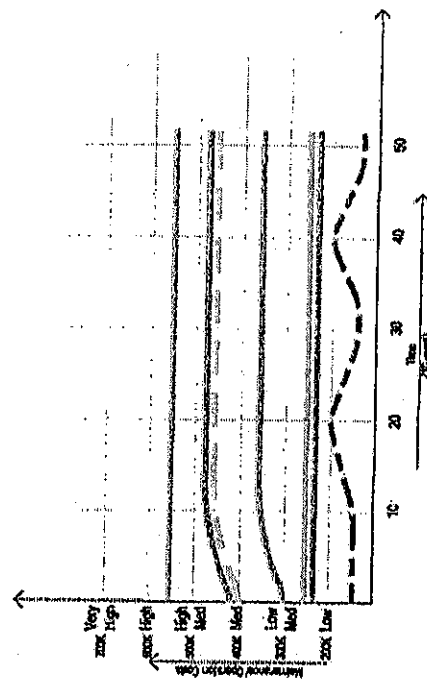
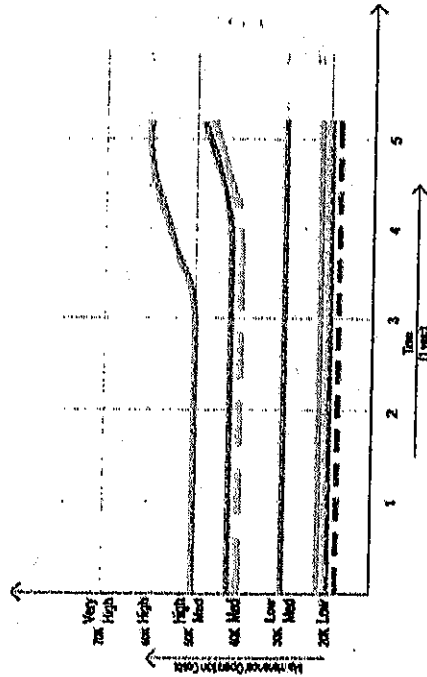
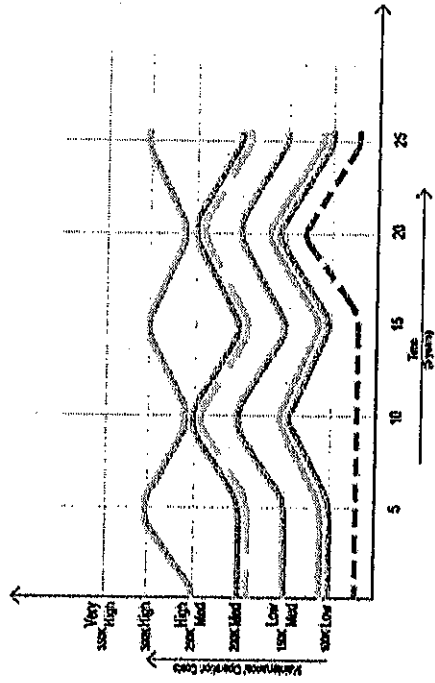
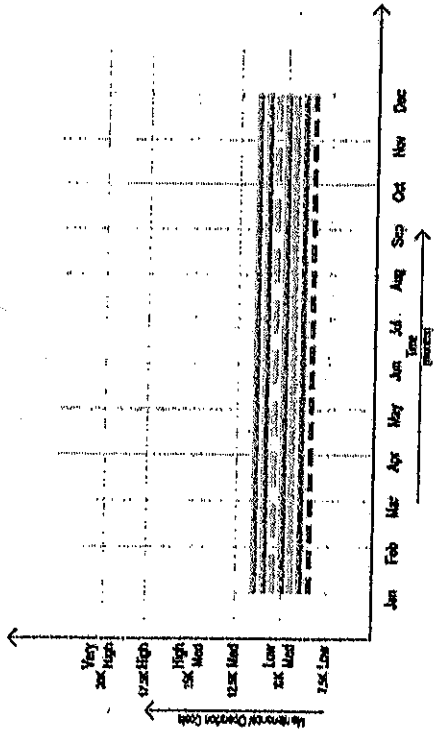
BROOKLYN BRIDGE PARK FURNISHINGS/STRUCTURES MAINTENANCE SCHEDULE

MATHEWS

NIELSEN

December 04, 2003

1000 Avenue
New York, NY 10001
212.611.1000
212.611.1000



LEGEND

ASPHALT

CONCRETE

UNIT PAVERS

POROUS PAVING

ATHLETIC SURFACES

WOOD

METAL DECKS

NOTES:

* DISREGARDS TRASH AND SNOW REMOVAL REPAIR MATERIAL ONLY.

BROOKLYN BRIDGE PARK

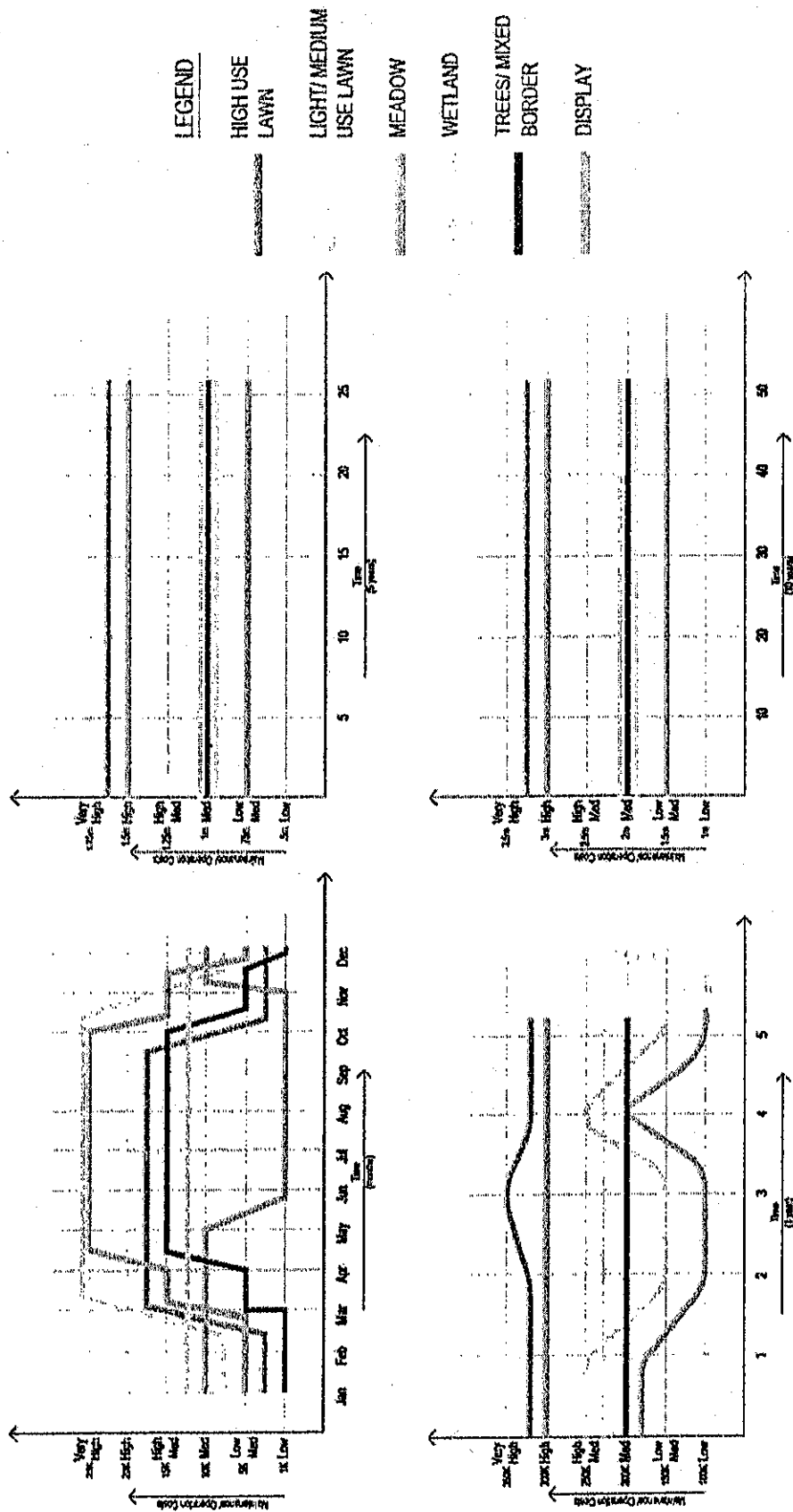
PAVING MAINTENANCE SCHEDULE

MATHEWS

NIELSEN

December 04, 2003

1000 Avenue A
New York, NY 10018
212.487.4000 FAX
212.487.4000



BROOKLYN BRIDGE PARK **PLANTING MAINTENANCE SCHEDULE**

MATHEWS
NIELSEN
 December 04, 2003

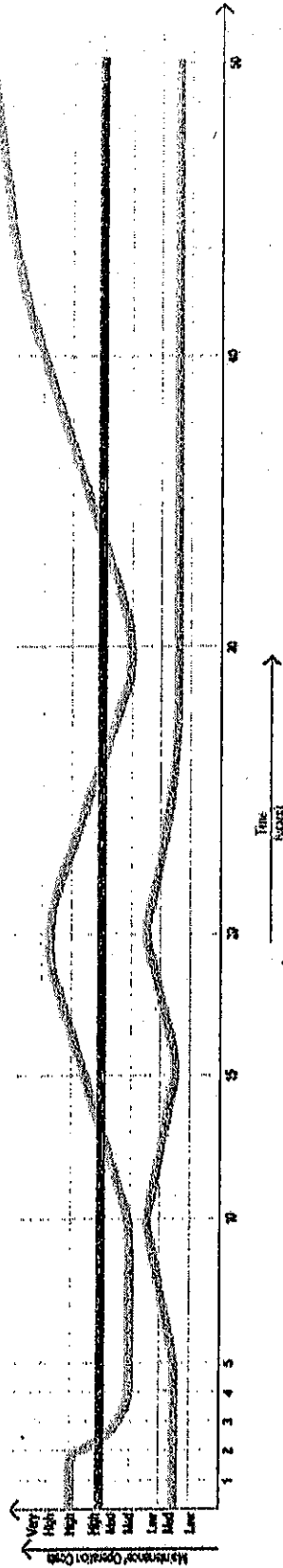
- NOTES:**
- * MEADOW—MAJORITY OF WORK PERFORMED OUTSIDE OF GROWING SEASON.
 - * WETLAND IS A DELICATE SYSTEM REQUIRING MAJOR WORK TO BE DONE OUTSIDE OF GROWING SEASON.
 - * HIGH USE LAWN, RESTORATION EVERY 3-5 YEARS.
 - * LIGHT/MEDIUM USE LAWN, RESTORATION EVERY 10 YEARS.
 - * WETLANDS, MEADOWS, FIRST YEAR ESTABLISHMENT IS HIGH, THEN DROPS TO REGULAR VALUE. EVERY 4-5 YEARS, MAJOR RESTORATION ACTIONS.

LEGEND

PLANTING

PAVING

FURNISHINGS/
STRUCTURES



NOTES:

- ASSUMES MORE SECURITY DUE TO GREATER USE OF PARK DURING SUMMER.
- ASSUMES HIGHER EDUCATION PROGRAM COSTS AND INPUT DURING SCHOOL'S NORMAL SESSION.
- ASSUMES CORPORATE/BRANDED SPONSORSHIP AND INPUT FOR SPECIAL EVENTS INCLUDING SECURITY AND SETUP. ASSUMES ALL ASPECTS OF PARK ADMINISTRATION, SITE MANAGEMENT, PLANTING, PAVING AND FURNISHINGS MAINTENANCE WOULD BE AFFECTED WITH THE NUMBER OF PLANNED EVENTS.

BROOKLYN BRIDGE PARK

MAINTENANCE SCHEDULE

MATTHEWS

NIELSEN

December 04, 2003

1000 Avenue B
New York, NY 10018
212.333.3333
212.333.3333

PARK COMPARISONS

	Central Park Conservancy	Bryant Park	Battery Park City	Riverbank	Hudson River Park Trust	Proposed Brooklyn Bridge Park
Park Acreage	843 Acres	5 Acres	35.27 Acres	28 Acres	550 Acres, 5 miles	79.96
	307 Acres of other landscape including walkways/plaza areas 150 acres of water 250 acres of lawns 136 acres of woodlands	5 Acres of landscape including walkways and other landscape areas, an intensely used 1.5 acre great lawn, terrace area at the front of the New York Public Library, gardens, promenade, concessions and reading room.	Exclusive of Oval lawn, Marina and Wintergarden 92 Acres total		460 Acres of Water 90 Acres of Plaza/Upland 54 Acres developed and maintained incl. all bikeways, mostly paved landscape	32 Acres of Hardscape 10 Acres of all lawns 20 of other Landscapes 10 of Park maintained safe water and 13 acres of buildings
Park Personnel (LF)	2638 LF	1912 LF	1930 LF	450 LF	3897 LF	32,049 LF
Park Personnel (LF)/Acre	3.1 LF/Acre	382.4 LF/Acre	54.7 LF/Acre	16.07 LF/Acre	43.3 LF/Acre	277.89 LF/Acre
Staff/acre	1 person / 2.17 acre	11 person / acre	4 people / acre	4.5 people / acre	1.3 people / acre	people / acre average
Cost/acre	\$13,200 / acre	\$580,000 / acre	\$212,000 / acre	\$261,600 / acre	For 54 acres: \$97,600 / acre Incl. Security: \$185,200/acre	\$165,395 per acre \$190,055 per acre, including security
Number of Full Time Employees	251	47	BPCPC Staff 86	120-125	40	53
Number of Seasonal Employees	30	8	50	35	30	41
Management Organizations (Refer Org. charts)	49 Zone Gardeners + 10 Specialty Crews Combines Horticulture, M & O and Trash Pick	Managed by the Bryant Park Restoration Corporation, a not for profit management company and the 34th Street Partnership, the local BID.	Horticulture, M & O (includes trash) and Programming separate Zone gardeners for unique parks		DOE Fund- 35 6 zones Horticulture, M & O (includes trash), Security separate, all under Operations	
Security	PEP service, no charge and minimal presence. Only called when Zone gardeners and Management cannot handle. All including evening crew (2 shifts) have radios. Relationship with NYPD.	This park has 24 hour security. Two uniformed BPCPC officers are present at all times.	Patrolled by PEP, Park Rangers and mounted police. All paid by BPCA.	24/7, 25-28 people stationed who patrol 5 parks. 14 summer police	24/7 presence, PEP/CSA Outsource, 4 zones coincide with Police jurisdictions, 16 PEP officers including 1 captain and 4 sergeants, 22 CNAs for all 5 miles. 3 shifts. Relationship with NYPD.	197 presence, 21 patrol officers, 8 sergeant officers on average per month for 3 shifts. 3 title guards on duty while kayak school is in operation.
Outsourced Tasks and/or Trade	Tree Limb Removal; Considering some lawn mowing	Tree Limb Removal	Major tree work; Trash removal/ street cleaning; Emergency Plumbing Contract		Trash removal; Horticulture / M & O of 9A, bikeway and walkway; Horticulture for 14th Street, Clinton Cove, Chelsea water side park; Arbovit; Irrigation; Snow Plowing; Water Maintenance (Coast Guard)	
Total Operating Budget	\$22,107,000	\$2,900,000	\$6,600,000	\$7,325,000	\$17,067,212	\$15,197,487
Administration/Programming	\$4,900,000	\$1,476,100	\$2,120,000	\$4,500,000	\$3,299,377	\$1,200,000
Horticulture and MO	\$11,100,000	\$754,000	\$3,470,000	\$1,500,000	\$5,000,000	\$4,476,225
Others depending on Park includes OTIS, Education, Capital maintenance, Fundraising, Operating Reserve/Contingencies, Concessions, Travel, IT	\$6,200,000	\$185,500 for Capital Maintenance, 6.9% of the total operating budget.	\$1,020,000	\$1,325,000	\$1,317,835	\$6,711,964
Security	No charge	\$481,400	Paid by BPCA	\$1,000,000	\$5,000,000	\$1,971,880
Utility Costs						\$837,417
Electric (NTPA)					(Per 40) \$2,000,000	\$520,865
Gas or oil					(Per 40) \$350,300	\$102,535

Brooklyn Bridge Park M & O Planning

Summary Highlights of Park Interviews

1. Areas of Agreement

- High level of service is required for security and parks cannot depend on NYPD.
- High level of service is required for comfort stations.
- High level of maintenance required for lawns as this is a signature expectation of park visitors.
- High level of service is required for trash collection.
- Cannot depend on Dept. of Sanitation or Dept. of Transportation for garbage collection or snow plowing/deicing practices.
- Outsourcing does not necessarily result in savings as additional supervisory and administrative staff is required. For example, a contract for outsourced labor must be written carefully to control costs, ensure quality and rapid response time.

2. Areas of Divergent Policies

- Disagreement as to efficacy of security cameras in lieu of warm bodies.
- Tremendous variability in out-sourcing vs. in-house. Those parks which do most work in-house believe it ensures better quality control, faster response time/less down time, but not cost savings.
- NYC parks have DPR backup, a service not available to state or quasi-state maintained parks.
- Administrative staff: great variability among park administrator interviewees.
- Labor/sub-contracts: both city and state parks outsource labor. City parks outsource skilled trades including forestry and automotive repairs and state parks outsource some educational training. One advantage to outsourcing skilled trades is that "higher tech" operational systems (for fountains, restrooms, irrigation, etc) can be utilized.
- Sanitation: city parks have own sanitation trucks; state parks do not. Variability among parks in terms of dumping charges.

3. Recommendations Applicable to BBP

- Major educational programming locations need convenient bus parking, comfort station and food concession.
- Consider zone gardener or recreational staff approach for point responsibility, consistency of care and additional "eyes and ears" to supplement security.
- Consider alternative workforces or equivalent to reduce low-level/low skill work force. Some alternative workforces are better than others particularly those that arrive as a group and with a supervisor. Not necessarily more cost effective than in-house at low-level pay scale.

- Establish standards for permitted events to ensure park protection.
- Irrigation mandatory for high use lawns.
- Need rodent control program.
- Concessions effective but management required to assure quality control.
- All vehicles/equipment must have a back-up vehicle or equipment. Cannot afford to have broken mowers, packers and sweepers.
- Consider ramifications of low-tech vs. hi-tech mechanical/electrical systems. Low-tech can have lower capital and maintenance cost but are less energy efficient; hi-tech are more costly in capital and labor maintenance but more energy efficient.
- Design structures/facilities that will be operated by BBP to be energy efficient as utility costs keep rising.
- Establish a management structure that allows for direct communication between event programmers and permit issuing and those responsible for M&O to ensure adequate staff, no conflict with maintenance schedules for longevity of materials, park protection and post-event clean up.
- Create a administrative position for a property manager to prepare leases and write contracts for concessions to ensure greater quality control and park protection.
- Consider establishing a relationship with the US Coast Guard and Army Corps to help maintain protected waters. Should consider acquisition of skimmer boat to supplement water/rip rap clean up.

LABOR RATES from New York State Department of Civil Service Classification and Compensation
Program Salary Schedules, April 1, 2002.

Classification	Title	Salary Grade	Salary with Benefits	Total Rate of Pay	Civil Service Negotiating Unit
Park Worker	Park Worker 1	4	\$26,737.13	\$12.85	Operational Services
	Park Worker 2	6	\$29,691.55	\$14.27	Operational Services
	Park Worker 3	9	\$35,121.64	\$16.89	Operational Services
	Park Supervisor 2	14	\$46,868.40	\$22.53	Operational Services
Security	Park Patrol Officer, Unarmed	As provided in June 14, 2004 meeting	\$39,228.64	\$18.86	Agency Law Enforcement Services
	Sergeant Park Patrol, Armed	As provided in June 14, 2004 meeting	\$48,992.15	\$23.55	Agency Law Enforcement Services
Mechanic	Motor Equipment Mechanic	12	\$41,716.58	\$20.06	Operational Services
Mechanic	Motor Equipment Mechanic Apprentice	6	\$29,691.55	\$14.27	Operational Services
Park Worker	Pesticide Control Specialist 2	21	\$65,186.92	\$31.34	Scientific, and Technical Services
Park Manager	Park Manager 2	21	\$65,186.92	\$31.34	Scientific, and Technical Services
Lifeguard	Lifeguard	11 / Average	\$39,861.54	\$19.16	Security Services
Park Recreation Supervisor	Park Recreation Supervisor	14	\$44,546.88	\$21.42	Scientific, and Technical Services
Park Recreation Activities Specialist	Park Recreation Activities Specialist	10	\$45,867.23	\$22.05	Institutional Services

Note: Salaries are effective through April 1, 2004. New salary schedules were published after the June Submission.

LABOR COSTS based on New York State Department of Civil Service Classification and Compensation Program Salary Schedules, April 1, 2002.

Designation	Tasks Work Crews can Perform	Required staff for each type of work crew						
		Labor Types	Rate per/hr	Labor Types	Rate per/hr	Labor Types	Rate per/hr	Total Rate
Park Worker 1	Snow Shoveling, 2-4", Snow Removal at crosswalks, Salt/sand application, Sweeping (Hand), Lawn Mowing, Raking and Edging, Hand Watering	Park Worker 1	\$12.85					\$12.85
Park Worker 2	Powerwashing, Pavement washdown with hose, Lawn and turf Fertilizer, Weed Control, Aeration, Overseeding, Liming,	Park Worker 2	\$14.27					\$14.27
Bathroom Cleaning Crew	Cleaning and maintenance of bathrooms	Park Worker 2	\$14.27	Park Worker 2	\$14.27			\$28.55
Park Worker 3	Salt/sand Application, w/ vehicle, Snowplowing, 2-4", Sweeping (machine), Asphalt Repair (coldpatch), Concrete Repair, Paver Resetting, Rodent Control	Park Worker 3	\$16.89					\$16.89
Work Crew Type 1	Tree Pruning, from ground	Park Worker 3	\$16.89	Park Worker 2	\$14.27			\$31.16
Work Crew Type 2	Tree Pruning, with cherry picker	Park Worker 3	\$16.89	2 Park Workers 2	\$28.55	2 Park Worker 3	\$33.77	\$79.21
Work Crew Type 3	Shrub Pest Control, Shrub Anti-Dessicant, Shrub Chemical Weed Control, Tree Pest Control	Park Supervisor 2	\$22.53	Park Worker 3	\$16.89			\$39.42
Work Crew Type 4	Tree Fertilization	Park Worker 2	\$14.27	Park Worker 3	\$16.89			\$31.16
Work Crew Type 5	Soil Testing	Park Supervisor 2	\$22.53	Park Worker 3	\$16.89			\$39.42
Work Crew Type 6	Shrub Weeding, Shrub Fertilization, Shrub Pruning, Shrub	Park Worker 3	\$16.89	Park Worker 2	\$14.27	Park Worker 1	\$12.85	\$44.01
Work Crew Type 7	C/M Garbage Pickup	Park Worker 1	\$12.85	Park Worker 2	\$14.27	Park Worker 2	\$14.27	\$41.40
Work Crew Type 8	Planting Inspections and turfgrass inspections, soil tests	Park Supervisor 2	\$22.53	Park Supervisor 2	\$22.53			\$45.07

LABOR COSTS based on New York State Department of Civil Service Classification and Compensation Program Salary Schedules, April 1, 2002.

Designation	Tasks Work Crews can Perform	Required staff for each type of work crew						
		Labor Types	Rate per/hr	Labor Types	Rate per/hr	Labor Types	Rate per/hr	Total Rate
Work Crew Type 9	Pickup of hand swept garbage and emptying of trash cans, Pickup and disposal of garbage on water, Resetting buoys	Park Worker 3	\$16.89	Park Worker 1	\$12.85			\$29.74
Plumbing Crew	Irrigation Maintenance	Park Worker 3	\$16.89	Park Worker 3	\$16.89			\$33.77
Park Patrol	Park Patrol	Security (unarmed)	\$18.86					\$18.86
Sergeant, Park Patrol	Sergeant, Park Patrol	Security (armed)	\$23.55					\$23.55
Lifeguard	Lifeguard duties at pool	Lifeguard	\$19.16					\$19.16
Park Manager	plan, direct, and coordinate the operations, recreation activities and facilities, maintenance, programs, and non-Park Police related security	Park Manager	\$31.34					\$31.34
Park Recreation Supervisor		Park Recreation Supervisor	\$21.42					\$21.42
Park Recreation Activities Specialist		Park Recreation Activities Specialist	\$22.05					\$22.05

Area Calculations												
		Playground s	Active Lawns	Display Gardens	Well Maintained Gardens	General Planting	Wetland and Marsh	Pier Landscape	Rip Rap Shoreline	Planted Rip Rap Shoreline	Buildings	
Hardscape											Safe Water	
	100,796	9,000	48,102	4,000	63,878	137,801	50,513	127,272	24,968	29,740	28,400	414,703
	75,271	9,000	91,004	15,550	12,000	182,744	31,800	22,695	7,409	11,287	60,720	35,673
	234,317	8,947	110,477			20,185					119,200	
	420,443		136,264			149,680					4690	
	93,688		8,300			24,815					90777	
	92,152										21600	
	125,328											
	3,000											
	128,290											
	56,407											
	18,794											
	22,000											
Total	1,370,486	26,947	394,147	19,550	75,878	515,225	82,313	149,967	32,377	41,027	325,387	450,376
		Open sided buildings on piers	Artificial Turf	Asphalt Paving		Items from cost estimate						
Areas to close at night												
	228,068	35,993	165,315	= 26,095		Trees in hardscape		630				
	234,317	32,462		39,336		Light poles		555				
	207,387	31,418		290,637		Sport Lights		6				
	202,629			30,386		Benches		820				
				14,444		Drinking Fountains		14				
				4,083		Trash Cans		275				
Total	872,401	99,873	165,315	404,981								

Assumptions made for the BBP project.

1. All operations are in-house.
2. Vehicles, M&O offices and security offices will be on site.
3. The park will hire an experienced staff that includes horticulturalists and tradesmen.
4. Labor Rates are from the 2002 New York State Department of Civil Service Salary Schedules or by New York State Office of Parks, Recreation & Historic Preservation who provided rates for security personnel. New rates became effective April 1, 2004 but were not published until after the June submission.
5. Labor rates include a fringe rate of 36.4%.
6. For powerwashing of hardscape areas, assume 5% of paved areas per year are to be powerwashed.
7. For washing with hose, assume 70% of paved areas per year are to be hosed down.
8. For asphalt repair, concrete repair and paver resetting, assume 1/250th (.004%) of total hardscape area per year per item will need to be repaired.
9. The estimate does not include possibility of periodic re-sodding for active use fields.
10. The estimate does not include cost of re-aligning, changing field layouts throughout season.
11. Quantity of trees and quantity of irrigation zones and quick couplers is based on the November 2004 plan.
12. Parkwide Security for special events is not included.
13. Security is based on an average number of guards to supply 19 hours of security on a daily basis. It is assumed that access to piers 2, 3 and 5 will be closed at dusk so that sufficient security presence can be maintained after dusk. No security is provided between 1 AM and 6 AM.
14. Mowing rates are based on the use of a fescue sod mix for all lawn areas.
15. Exclusions: Administration for Special Events, Major Structural Repairs (Piers, Bulkhead and Buildings), Education and Cultural Programming.
16. Marina operator will be responsible for maintenance of the marina water and all related docking equipment and structures. Maintenance of all safe water areas, wave attenuators, float bridges and buoys and the water area within the cove between the Brooklyn and Manhattan Bridges will be the responsibility of the Park.

References for the BBP project.

1. Labor Rates are from 2002 New York State Department of Civil Service Salary Schedules and are based on new employees hired under State Parks Department classifications. (Classifications assigned are based on incomplete data from the New York State Department of Civil Service. Additional information as well as confirmation of classifications currently applied is needed.)
2. Professional Grounds Management Society, *Grounds Maintenance Estimating Guidelines*, 7th Edition, 1995.
3. RSMeans, *Site Work and Landscape Cost Data*, 22nd Annual Edition, 2003.
4. APPA: The Association of Higher Education Facilities Officers, National Recreation and Park Association and the Professional Grounds Management Society, *Operational Guidelines for Grounds Management*, 1st Edition, 2001.
5. Consolidated Edison Company of New York, Inc., *P.S.C. No. 9 - Electric Tariff*, Third Revised Leaf No. 244, 245, 246, 247, 248, 249, Date of Original Issue: Various; Effective Date: Various
6. Central Park Conservancy, *Central Park Conservancy Annual Report 2001*, January 2002.
7. Central Park Conservancy, *Central Park Conservancy Annual Report 2002*, January 2003.
8. Central Park Conservancy, *Central Park Conservancy Annual Report 2003*, January 2004.
9. Central Park Conservancy, *Central Park Conservancy Annual Report 2004*, January 2005.
10. U.S. Department of Energy, Energy Information Administration, *1999 Commercial Buildings Energy Consumption Survey (CBECS), Detailed Tables, Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels*, 1999
11. Ohio State University Extension Fact Sheet, *Water Use Planning Guide*, AEX-420-94, Ohio State University, 590 Woody Hayes Dr., Columbus, Ohio
12. Prospect Park Alliance, *Annual Report 2003*
13. Prospect Park Alliance, *Annual Report 2004*
14. Chicago Park District, *2003 Audited Financial Statement*, May 31, 2004
15. Chicago Park District, *2005 Operating Budget Recommendations*
16. Project for Public Spaces, *Bryant Park, NY: Publicly Owned, Privately Managed, and Financially Self-Supporting*
17. Bryant Park Restoration Corporation, www.Bryantpark.org