Financial Model Update
Board of Directors
June 11, 2015
BBP financial model developed/refined over 10+ years

Public updates

First model created as part of initial park planning: 2005
Public presentation of financial model: 2009
Committee on Alternatives to Housing process: 2010
Financial Model Update for Board of Directors: 2013
Financial Model Update for Board of Directors: 2014

Executing on the model

2008: One Brooklyn Bridge Park lease approved
2009: First comprehensive maritime inspection
2010: First park sections open (Pier 1 and Pier 6)
2012: Pier 1 Hotel/Condo lease approved
2013: John St and Empire Stores leases approved
2014: First maritime repairs, funded out of operating capital
2014: Pier 6 development RFP issued
OUTLINE

• Expenses
  • Operating Expenses
  • Maritime Maintenance
  • Capital Maintenance

• Revenue

• Cashflow projections
OPERATING EXPENSES:
Park is 65% complete with 10% under construction\(^1\)

\(^1\) Numbers are approximate
OPERATING EXPENSES:  
After initial park build-out, opex grows with inflation

Projected ann. opex ($M, nominal)  

NOTE: FY12 to FY15 derived from approved BBP budgets, FY16 from proposed budget, and FY17 to FY65 from projections
1. Expense growth during “Park phase-in” based on (i) addition of new parkland, (ii) increased visitation at existing parkland, and (iii) projected inflation
2. CAGR=Compound Annual Growth Rate
3. Park construction projected to be completed during FY19
4. Expense growth during “On-going maintenance” projected to be 3% annually, the historical average rate of inflation in the US
5. Nominal values include inflation
MARITIME MAINTENANCE:
Maritime infrastructure is deteriorating

BBP maritime assets¹

- 13,000 timber piles
- 11,000 concrete extensions
- 4,500 linear ft of bulkheads²
- 830,000 SF of concrete pier deck (1/3 of park)
- 3,200 linear ft of riprap or natural shore

¹ Numbers are approximate
² Concrete and steel
MARITIME MAINTENANCE:
Initial cost estimate from 2005 was simplistic

NOTE: Initial financial model from 2005 assumed $200M (real$) of maritime expenses over 50 years; it assumed consistent $4M per year expenses (a straight average), grown with inflation

Total expense over 50 years was $200M (in $2005)
(or $450M in $nominal)
MARITIME MAINTENANCE:
More refined lifecycle cost model created in 2010

Model inputs

- Quantity and type of maritime assets
- Rate of deterioration
- Unit cost for repair ($ per linear foot)

Projected expenses ($M)

Total expense over 50 years projected to be $200M (in $2010) (or $375M in $nominal)

1. Assumed $700 per linear foot in structural repair costs
2. Dive inspections were projected at ~$220K annually ($2005)
MARITIME MAINTENANCE:
Cost of repairing maritime infrastructure is escalating

<table>
<thead>
<tr>
<th>Year</th>
<th>Projected expense over 50 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$200M</td>
</tr>
<tr>
<td>2012</td>
<td>$260M</td>
</tr>
<tr>
<td>2015</td>
<td>$320M</td>
</tr>
</tbody>
</table>

2. Project scope and rate of deterioration have remained consistent with earlier projections
3. Unit costs based on awarded marine contracts for BBP work and consistent with regional averages
4. CAGR=Compound Annual Growth Rate

- Steep growth in unit costs for repairs:
  - $1,100/lin. ft. (2015)

- Growth driven by:
  - Improved local economy
  - Numerous active projects in NY Harbor
  - Limited number of specialty contractors leads to strong pricing power

10% CAGR\(^4\) from 2010 to 2015
### MARITIME MAINTENANCE: Reactive vs. preventative approach

<table>
<thead>
<tr>
<th>Approach</th>
<th>Reactive approach</th>
<th>Preventative approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associated repair</td>
<td>• Annual rehabilitation of deteriorated elements only</td>
<td>• Encase piles to prevent future deterioration</td>
</tr>
<tr>
<td></td>
<td>• Remaining non-rehabilitated elements continue to deteriorate</td>
<td>• Repair as many piles upfront as is financially viable</td>
</tr>
<tr>
<td></td>
<td>• Steel reinforced concrete encasement (4” to 8” width)</td>
<td>• ¾” epoxy protective encasement (no reinforcing steel or concrete)</td>
</tr>
<tr>
<td></td>
<td>• Transfers structural load from pile, to concrete encasement</td>
<td>• Piles maintain structural capacity</td>
</tr>
</tbody>
</table>
MARITIME MAINTENANCE: Current expense projection (reactive approach)

Projected annual expenditure ($M, nominal)

Total expense over 50 years is $320M (in $2015) (or $600M in $nominal)

1. Assumes $1,100 per linear foot in structural repair costs, up from previous cost assumption of $875 per linear foot; grown with inflation of 3% per year
2. Dive inspections are ~$250K annually ($2015) for reactive approach
3. Up from previous estimate of $260M from 2012
MARITIME MAINTENANCE:
Current expense projection (preventative approach)

Total expense over 50 years is $240M (in $2015)
(or $340M in $nominal)

1. Assumes $1,100/linear foot in structural repair (up from $875/lin ft), $525/lin ft in preventative concrete extension repair, and $425/lin ft in preventative pile repair; grown with inflation of 3% per year
2. Dive inspections are ~$150K annually ($2015) for preventative approach
3. Up from previous estimate of $210M from 2012
MARITIME MAINTENANCE:
Preventative approach has significant advantages

• Cheaper than reactive approach ($80M cheaper in $2015 or $260M in $nominal)
  o Reduced labor costs
  o Less material required
  o Economies of scale in purchasing
• Better for the environment (less fill in East River)
• Less market risk of future cost increases
• Good long-term investment option

1. BBP’s investment policy limits investment of BBP funds to low-risk, modest return vehicles; current annual rate of return on these investment vehicles is <1%

Preventative maintenance repair
Reactive maintenance pile repair
**CAPITAL MAINTENANCE:**
Refinement of capital maintenance expense estimates

<table>
<thead>
<tr>
<th>Year</th>
<th>Based on industry standards</th>
<th>2005 estimate</th>
<th>2012 estimate</th>
<th>2015 estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Based on lifecycle cost model of all BBP assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Full asset inventory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Useful life of assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replacement value</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Based on industry standards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1% to 2% of initial construction costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• $130M construction budget</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>~$2M per year</td>
<td>~$5M per year</td>
<td>~$5M per year</td>
</tr>
</tbody>
</table>

NOTE: BBP does not receive public funds for on-going capital maintenance
CAPITAL MAINTENANCE: Lifecycle estimate – illustrative example

1. Identify all park assets
   - Pier 5 astroturf (installed FY2012)

2. Assign useful life to each asset
   - 10 year life

3. Determine replacement value for each asset
   - $800K\(^1\)

4. Project replacement expenses over 50 years
   - Replacement needed in FY22, FY32, FY42 etc.

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1. In $2015; model assumes 3% annual cost inflation
**CAPITAL MAINTENANCE:**
All BBP assets used to project future expenses

180+ asset groups identified

<table>
<thead>
<tr>
<th>Artificial Turf</th>
<th>Paving / Chip Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaches (Pier 4 and Main St)</td>
<td>Picnic Grills</td>
</tr>
<tr>
<td>Benches (slats, supports)</td>
<td>Picnic Tables / Umbrellas</td>
</tr>
<tr>
<td>Boardwalk at EFF</td>
<td>Pier 2 Court Surface</td>
</tr>
<tr>
<td>Bouldering Wall</td>
<td>Plantings and Lawns</td>
</tr>
<tr>
<td>Buildings</td>
<td>Playground Equipment</td>
</tr>
<tr>
<td>Dog Run Surfaces</td>
<td>Playground Surfaces</td>
</tr>
<tr>
<td>Exercise Equipment</td>
<td>Range Fence</td>
</tr>
<tr>
<td>Ferry Dock at Pier 6</td>
<td>Retention Tanks</td>
</tr>
<tr>
<td>Floating Dock at Pier 2</td>
<td>Rink Surface</td>
</tr>
<tr>
<td>Irrigation (pumps, lines)</td>
<td>Shade Sails</td>
</tr>
<tr>
<td>Lights (poles, fixtures)</td>
<td>Sports Netting</td>
</tr>
<tr>
<td>Loop Road + parking lot</td>
<td>Squibb Bridge</td>
</tr>
<tr>
<td>Marine Fence</td>
<td>Steel Shed Structure</td>
</tr>
<tr>
<td>Overwater bridges (7 in total)</td>
<td>Vehicles</td>
</tr>
</tbody>
</table>

**Projected capital maintenance expenses**

<table>
<thead>
<tr>
<th></th>
<th>FY2016</th>
<th>FY2019</th>
<th>FY2022</th>
<th>FY2025</th>
<th>FY2028</th>
<th>FY2031</th>
<th>FY2034</th>
<th>FY2037</th>
<th>FY2040</th>
<th>FY2043</th>
<th>FY2046</th>
<th>FY2049</th>
<th>FY2052</th>
<th>FY2055</th>
<th>FY2058</th>
<th>FY2061</th>
<th>FY2064</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$5</td>
<td>$10</td>
<td>$15</td>
<td>$20</td>
<td>$25</td>
<td>$30</td>
<td>$35</td>
<td>$40</td>
<td>$0</td>
<td>$5</td>
<td>$10</td>
<td>$15</td>
<td>$20</td>
<td>$25</td>
<td>$30</td>
<td>$35</td>
<td>$40</td>
</tr>
</tbody>
</table>

Average of ~$5M ($2015) per year

**NOTE:** Above list of assets not comprehensive

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OUTLINE

• Expenses

• Revenue
  • One-time Revenue
  • Recurring Revenue

• Cashflow projections
# ONE-TIME REVENUES:
Revenues from upfront rent, PILOST\(^1\), and PILOMRT\(^2\)

Projected one-time revenue

<table>
<thead>
<tr>
<th>Site</th>
<th>One-time rev ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Brooklyn Bridge Park</td>
<td>$4</td>
</tr>
<tr>
<td>Pier 1</td>
<td>$27</td>
</tr>
<tr>
<td>John Street(^3)</td>
<td>$31</td>
</tr>
<tr>
<td>Empire Stores</td>
<td>$32</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$93</strong></td>
</tr>
</tbody>
</table>

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1. PILOT=Payment in Lieu of Sales Tax
2. PILOMRT=Payment in Lieu of Mortgage Recording Tax
3. Includes estimated $10M in participation rent on initial sales
**RECURRING REVENUE: Model assumptions**

### Revenue variables

- **PILOT amount**
- **PILOT growth rate**
- **Ground rent amount**
- **Ground rent growth rate**

### Assumptions

**Resi:** Based on DOF market values for comparable buildings¹

**Comm:** Based on projected NOI² of each project

**Ground rent growth rate:**

- 3% annual growth in DOF market value³

### Defined in leases

<table>
<thead>
<tr>
<th>Site</th>
<th>Annual rent</th>
<th>Growth rate (per yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBBP</td>
<td>$1.4M</td>
<td>3.0%</td>
</tr>
<tr>
<td>Pier 1</td>
<td>$0.8M</td>
<td>~1.8%⁴</td>
</tr>
<tr>
<td>John Street</td>
<td>$0.2M</td>
<td>3.0%</td>
</tr>
<tr>
<td>Empire Stores</td>
<td>$1.6M</td>
<td>2.3%</td>
</tr>
<tr>
<td>Marina</td>
<td>$0.3M</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

### Projected recurring revenue

<table>
<thead>
<tr>
<th></th>
<th>Rev. per year ($2015 in M)⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBBP</td>
<td>$2.3</td>
</tr>
<tr>
<td>Pier 1⁶</td>
<td>$3.2</td>
</tr>
<tr>
<td>John St.⁷</td>
<td>$1.0</td>
</tr>
<tr>
<td>Empire Stores⁶</td>
<td>$2.7</td>
</tr>
<tr>
<td>Other⁸</td>
<td>$1.7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$10.9</strong></td>
</tr>
</tbody>
</table>

1. DOF=Dept of Finance; ~$120/SF for Pier 1 residential, John St, and OBBP
2. NOI=Net Operating Income
3. Based on historical annual rate of inflation in US
4. Growth rate is 7.5% every 5 years
5. Projected revenue based on first stabilized year of each asset
6. Participation for Pier 1 hotel and Empire Stores assumed to be zero; current projections suggest project revenue and profit thresholds will not be met
7. Includes ~$200K per year in annual Park Transfer Fee beginning in FY2020
8. Includes revenues from marina, concessions, parking, permits, and events

NOTE: Model assumes current tax rates (10.684% for commercial and 12.855% for multifamily residential) in all future fiscal years
### RECURRING REVENUE:
Expiration of tax abatements

<table>
<thead>
<tr>
<th>Type</th>
<th>Length of full abatement</th>
<th>Length of phase out</th>
<th>Abatement expires</th>
<th>Additional rev. to BBP at expiration ($2015 in M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBBP (residential)</td>
<td>J-51</td>
<td>10 yrs</td>
<td>5 yrs</td>
<td>2024</td>
</tr>
<tr>
<td>OBBP (commercial)</td>
<td>ICIP</td>
<td>15 yrs</td>
<td>10 yrs</td>
<td>2034</td>
</tr>
<tr>
<td>Empire Stores</td>
<td>ICAP</td>
<td>15 yrs¹</td>
<td>10 yrs¹</td>
<td>2042</td>
</tr>
<tr>
<td>Pier 1 hotel</td>
<td>ICAP</td>
<td>15 yrs</td>
<td>10 yrs</td>
<td>2042</td>
</tr>
</tbody>
</table>

**NOTE:** Years are fiscal years; Empire Stores and Pier 1 hotel abatements have not yet been granted, therefore abatement expirations are projections.

1. Only applies to office space and first 10% of building’s retail; all retail over 10% of total building size has a 10 year full abatement and 5 year partial abatement.

2. All values are projections based on projected future DOF valuations; Source: BBP.
RECURRING REVENUE:
Growth driven by expiring tax breaks, inflation

1. Growth driven by commencement of ground rent and by PILOT values increasing as buildings are constructed and occupied
2. CAGR=Compound Annual Growth Rate
3. Assumes 3% inflation of PILOT, defined escalation terms on ground leases as shown in previous slide
OUTLINE

• Expenses
• Revenue
• Cashflow projections
CASHFLOW PROJECTION:
Assuming no Pier 6¹ (reactive maritime approach)

1. Cashflow projection assumes no revenues from Pier 6 development sites
2. Includes all projected expenses (opex, maritime, and capital maint.) and all projected revenues (one-time, recurring, and rev from abatement expirations)
3. “Reserve balance” is aggregate beginning balance of operating, capital maintenance, and maritime maintenance reserve funds in any given year

NOTE: Cost of borrowing during negative “Reserve fund balance” years not included
CASHFLOW PROJECTION: Assuming no Pier 6¹ (preventative maritime approach)

1. Cashflow projection assumes no revenues from Pier 6 development sites
2. Includes all projected expenses (opex, maritime, and capital maint.) and all projected revenues (one-time, recurring, and rev from abatement expirations)
3. "Reserve balance" is aggregate beginning balance of operating, capital maintenance, and maritime maintenance reserve funds in any given year

NOTE: Cost of borrowing during negative "Reserve fund balance" years not included
CASHFLOW PROJECTION:
What does a self-sustaining park look like?

Maritime expenses drive down park reserves
Maritime expenses decrease + tax abatements expire

Reserve fund balance can’t fall below zero; assumes BBP doesn’t go into debt
City can sweep excess PILOT²

NOTE: For illustrative purposes only; does not represent a real projection
1. "Reserve balance" is aggregate beginning balance of operating, capital maintenance, and maritime maintenance reserve funds in any given year
2. 2006 PILOT legislation allows City to sweep excess PILOT funds after FY2026
Conclusion

• Model has long history and has been publicly vetted over 10+ years

• BBP constantly refining model assumptions to reflect latest on-the-ground realities and market dynamics

• Despite major economic changes over past decade, current projections are still largely in-line with originally conceived financial plan

• Revenues from Pier 6 development sites are essential to BBP’s financial solvency