

## Condominium

# Capital Needs Assessment and Replacement Reserve Analysis

### FINAL REPORT

Prepared for:



Thayer & Associates, Inc. AMO®

1812 Massachusetts Avenue  
Cambridge, MA

## Bay Square Condominium

Cambridge, MA

October 19, 2021



# Bay Square Condominium: Property Overview

**Total Buildings:** 1

**Number of Residential Buildings:** 1

**ON-SITE  
INSIGHT**   
A RECAP REAL ESTATE ADVISORS COMPANY

**Total Units:** 114

**Number of Non-Residential Buildings:** 0

<u>Building Type</u>	<u># of Buildings</u>	<u>Residential Units</u>	<u>Garage Units</u>	<u>Commercial Units</u>
Elevator	1	110	1	3
Walk-up	-	-	-	-
Townhouse	-	-	-	-
<b>Totals:</b>	<b>1</b>	<b>110</b>	<b>1</b>	<b>3</b>

**Occupancy:** Families

**Property/Development Age:** 33 years

**Year of Construction:** 1988

**Year of Most Recent Rehab:** 1994

**City & State:** Cambridge, MA

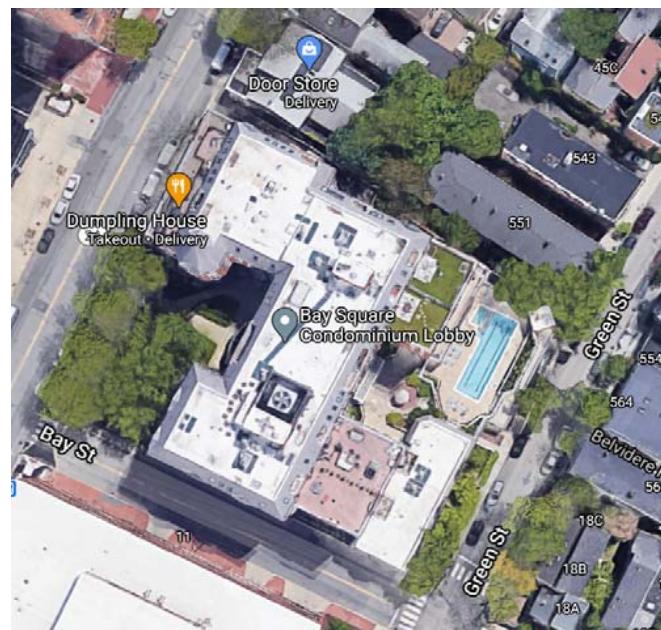
**Addresses:** 950 Massachusetts Avenue

**OSI Project Number:** 21043

**Assessment Date:** March 16, 2021

**Assessor:** Tina Cardoso

**Property Description:**



The nine-story, elevator served building was constructed in 1988 and contains 110 residential condominium units. In addition, there are three ground-floor commercial units with direct entries along the front (Massachusetts Avenue); and one parking garage unit (Unit G-1) that is comprised of 58 parking spaces in the lower level of the two-level parking garage. Amenities available for resident use include a fully staffed concierge desk in the first-floor lobby; a large open recently renovated lobby/sitting area, a fitness center with professional-grade equipment and adjacent men's and women's locker rooms; heated outdoor pool and spa; a meeting room with adjacent kitchenette; and laundry facilities. Exterior spaces include a rear courtyard with heated pool and spa and various private terraces and patios.

## Bay Square Condominium

Cambridge, MA

**Bay Square Condominium** is a single building development located in a mixed-use neighborhood of Cambridge. The nine-story, elevator served building was constructed in 1988 and contains 110 residential condominium units. In addition, there are three ground-floor commercial units with direct entries along the front (Massachusetts Avenue); and one parking garage unit (Unit G-1) that is comprised of 58 parking spaces in the lower level of the two-level parking garage. Amenities available for resident use include a fully staffed concierge desk in the first-floor lobby; a large open recently renovated lobby/sitting area, a fitness center with commercial-grade equipment and adjacent men's and women's locker rooms; heated outdoor pool and spa; a meeting room with adjacent kitchenette; and laundry facilities. Exterior resident spaces include a rear courtyard with heated pool and spa and various private terraces and patios.

Overall, the development was observed to be in good current condition. That said, the property has substantive capital needs anticipated in the coming years; a number of systems and components are at or approaching the end of their useful lives. Anticipated near-term needs include site lighting replacement; heat exchanger and trash compactor replacement, on-going as-needed building distribution piping sectional repairs and rooftop exhaust fan replacements; exterior caulk replacement, brick cleaning, and as-needed brick repair and repointing; garage repairs and recoating; exterior service and garage door replacement; roof replacement; and interior common area lighting upgrades.

Future capital actions are based on useful life expectations and assume continued effective maintenance and physical management. Costs for the twenty-year plan total \$5,300,049 or \$53,000 per one percent of beneficial interest (per % of B.I) in current dollars (\$6,780,934, or \$67,809 per % of B.I in inflated dollars, at an estimated average inflation rate of 3% per year). At current funding levels (referenced as Plan #1), the reported annual contributions of \$317,392 per year (\$3,174 per % of B.I per year) and increased to \$330,000 in Year 2 (2022) and current replacement reserve (reported to have been at \$920,944 on January 1, 2021) will fully fund all projected capital needs. For the purposes of this study, the contributions to reserves are shown being increased at 0.5% annually throughout the twenty-year plan.

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This report was prepared to generate a cash flow projection over a twenty-year timeframe (2021 through 2040) for all site, architectural, mechanical, and electrical components that comprise the Association's responsibility. The replacement costs contained in this assessment have been developed through the use of national third-party, location-adjusted, cost resource guides (R.S. Means); our own cost database compiled from recent relevant capital needs assessments completed by On-Site Insight; client/ management input regarding recent cost experiences at this property; as well as management-provided costs from proposals and inspection reports. These estimates do NOT include associated project management or engineering fees.

## **Site**

The development occupies a moderate size lot in a mixed-use neighborhood and abuts city-owned streets along three elevations. The site slopes from the front (north) to the south and features a below grade, two-level parking garage. A concrete-paved driveway and loading dock at the east elevation is accessed from Massachusetts Avenue and is used by residents for moving as well as for trash and recycling pickup. The front of the building is set back from Massachusetts Avenue and features a small, landscaped park enclosed by painted metal fencing. Pedestrian access is by concrete walkway and site illumination is by original bollard-style fixtures. The townhouse units at the rear of the building feature private entries with private patios enclosed by PVC privacy screen fencing with access gates.

A courtyard and pool deck are constructed on top of the upper garage level roof which is accessed from the main lobby as well as the fitness area. The pool deck includes a large pool with adjacent spa surrounded by large brick and concrete planters containing a variety of shrubs and plantings, all of which were recently replaced after installation of a new membrane liner to mitigate persistent historical leaking issues into the garage below. The pool is enclosed by PVC fencing and an Azek timber pergola frames the rear lobby entrance. The building is served by municipally supplied domestic water and sanitary sewer lines, and utility-supplied natural gas, electricity, telephone, cable television, and internet services.

- 1. Costs for the development's site and pool related elements total \$942,674 or \$9,427 per % BI in inflated dollars.**
2. The east elevation driveway concrete surface and adjacent walkway exhibit age and use related wear. The loading dock was repaired and sealed in 2016 and remains in good condition. Costs to reapply a protective epoxy coating to the loading dock platform are shown Years 5 and 15.
3. The concrete walkways at the front and rear courtyards were observed to be in good condition; repair allowances (including the loading dock driveway and walkway) are shown every five years beginning in Year 3.
4. The front courtyard painted metal fence was last painted circa 2017; costs to sand, prime, and paint the fence are shown in Year 11.
5. In 2017-2018, the large brick planters around the pool were renovated which included removal all of the plantings and relining the planters with a waterproofing membrane. At that time new Azek PVC fencing was installed along the eastern edge of the courtyard. Similar fencing was installed along other perimeters in 2012 and along the townhouse private patios in 2010. All fencing remains in good observable condition with no cracked or damaged/leaning sections noted during the

assessment. Replacement of the older PVC fencing is shown based on a twenty-five-year expected useful service life. Replacement of the newer courtyard fencing is not anticipated within the twenty-year timeframe of this plan.

6. The bollard light fixtures along the pedestrian walkways at the front courtyard and the lights on the two brick piers are believed to be original and are shown being replaced in Year 1.
7. The building features a full complement of municipal and utility provided site distributions systems (domestic water, sanitary waste, natural gas, electricity, telephone, cable, and internet). No issues related to these systems were reported during the assessment; and they are all shown being monitored and maintained as-needed from operating accounts throughout the plan's timeframe.
8. The site is attractively landscaped with an open grass area, shrubs, and planting beds along the rear parking areas. Landscaping is shown being maintained throughout the plan from operating accounts.
9. The concrete pool surface is in generally good condition; periodic costs for as-needed sectional repairs and resurfacing are shown every five years starting in Year 3.
10. The pool and spa were covered on the day of the assessment; however, both were reported to be in good condition. The pool and spa were last resurfaced in 2015; and future resurfacing costs are shown in Years 4 and 14. The caulking around the pool and the pool deck was replaced in 2018; future costs are shown in Year 12 after fifteen years of use.
11. The pool/spa spring-anchored mesh safety cover was replaced in 2015. Future replacements are shown in Years 4 and 14.
12. No issues regarding the various pool mechanical equipment – sand filters, separators, chlorinators, pumps, etc. – were reported during the assessment, and periodic allowances for as-needed replacements and upgrades are shown every five years beginning in Year 1.
13. The pool and spa water are heated by a pair of 399-MBH RayPak natural gas-fired boilers located in the pool mechanical room. These were installed in 2008 and remain in reportedly good operating condition. Future replacement of both boilers is shown in Year 12, after twenty-five years of use.

## **Mechanical Room**

A 7<sup>th</sup> floor mechanical room contains the heating and cooling equipment for all of the units in the building. All residences, commercial spaces, and most common spaces are heated and cooled via a closed-loop water-source heat pump system. Two 30-horsepower base-mounted pumps circulate the service loop water through all refrigerant heat pump units. The heat pumps extract heat from the loop to provide heating to the spaces, or they reject heat from the spaces to the loop to provide cooling. These pumps are equipped with Teco MA7200 variable frequency drives (VFD's) and a VFD wall mounted controller regulates the speed of the pumps. During peak heating conditions (winter) when the heat pump units cool the loop by extracting its heat, two 1,500-MBH RBI Flexcore condensing, natural gas-fired boilers maintain the loop's heating temperature range. Two Grundfos Magna3,  $\frac{3}{4}$ -horsepower, stainless steel pumps circulate the boiler water through an Alfa-Laval A15-BFG, 4,600 sf, 150-psi plate and frame heat exchanger which transfers the boiler water heat to the building loop to return the loop to its necessary temperature range.

During the cooling season, the heat pump units reject heat to the service loop, the loop temperature tends to rise above 90 degrees. At this point the service loop water passes through the same plate and frame heat exchanger and rejects the heat to the cooling tower loop. Two 20-horsepower pumps circulate the cooling tower loop through the heat exchanger to collect the rejected heat and then up to the roof-mounted Evapco AT-112, induced-draft, counterflow cooling tower which rejects the heat to the atmosphere. A chemical treatment system conditions the loop water which helps prevent contaminants from fouling the pumps and heat exchanger.

Domestic hot water (DHW) is generated via a pair of dedicated 1001-MBH Intellihot, natural gas fired boilers with integrated modulating controls. Contained in the mechanical room is a separate RBI Dominator, 300-MBH boiler which provides hydronic heating to the boiler room and adjacent storage and generator rooms. A Grundfos Magna3, 1/2-horsepower, stainless steel pump circulates the hydronic heat water.

**14. Costs related to the development's boilers and boiler room systems total \$1,187,981 or \$11,880 per unit in inflated dollars.**

15. The heating boilers date to 2016 and are in good current condition with no operational problems reported during the course of the assessment. Replacement of the 1,500-MBH RBI Flexcore condensing boilers the smaller 300-MBH RBI, high-efficiency boiler is shown in Year 15, based on a 20-year expected useful service life. Costs shown reflect the actual 2016 costs increased for inflation.
16. The Alfa-Laval plate and frame heat exchanger is periodically opened, inspected, cleaned, and all gaskets are checked and replaced as-needed. The heat exchanger is believed to be original equipment and management plans to replace in the near term. Replacement costs are shown in Year 1. Future preventative maintenance work is shown being funded as-needed from operating accounts.
17. Boiler water is circulated through the system heat exchanger by Grundfos stainless steel circulation pumps. All pumps were installed with the boilers in 2016 and costs for replacement are shown in Year 15.
18. The 30-hp service loop pump motors were replaced in 2011; and future replacement of both motors is shown in Year 10, based on a twenty-year expected useful service life. The service loop pumps are rebuilt approximately every fifteen years; and alternating rebuild costs are shown in Years 1, 8, and 16.
19. The Teco service loop pump VFD's were newly installed in 2014. Replacement of these units is shown in Year 8, after fifteen years of use.
20. The cooling tower was newly installed in 2012 and remains in good observable condition with no reported operating issues. Future replacement is shown in Year 16, after twenty-five years of use. Rebuilding of the cooling tower loop pumps and motors are shown in Years 1, 8, and 16 of the plan.
21. Domestic hot water (DHW) is generated via a pair of dedicated 1001-MBH Intellihot, natural gas fired boilers installed in 2016. Future replacement is shown in Year 15 after twenty years of use.

## **Building Mechanical and Electrical Systems**

Major building systems include a fire suppression system that is equipped with a backflow preventer; distribution piping for domestic hot and cold water; sanitary wastewater and vent; natural gas; building air conditioning; and building exhaust. Additionally, the building is served by a chute-fed hydraulic waste compaction unit with steel dumpsters. The building's domestic cold-water supply and distribution systems are augmented by a skid-mounted Syncroflo duplex booster station. Rooftop-mounted Carrier WeatherMaster 4-ton units provide fresh tempered air to the common hallways. Building interior exhaust needs are met via a series of rooftop-mounted mushroom-style powered exhaust fans.

The building is equipped with GE electrical switchgear and disconnect equipment; each unit is individually metered for consumption of electricity. The building features a SimplexGrinnell 4100U fully addressable fire alarm control panel with integrated command center and EVAC (emergency voice alarm communication) system, sub panels on each floor, and hard-wired end devices (smoke detectors, heat detectors, flow switches, pull stations, horn/strobes, etc.) throughout the building. Visitor access control to the building is regulated by a pushbutton-style intercom panel and door strike release system at the main entry. Building security is provided by a video surveillance system with 22 strategically-placed interior and exterior mounted cameras and digital video recorder station located at the concierge desk. In addition, there is a building wide in-unit intercom system.

Vertical transportation is facilitated by a pair of hoist-type elevators located at the east and west ends of the building. The elevator equipment is regularly maintained under the terms of a full-service contract.

**22. Costs related to the development's mechanical and electrical systems total \$1,047,058 or \$10,471 per % BI in inflated dollars.**

23. The building reportedly experiences on-going leaking issues related to the aging distribution piping; and an annual expenditure for as-needed sectional repairs and replacements are shown throughout the plan.
24. Building waste management is facilitated by an original chute-fed, forward-feed, hydraulic compactor with two rolling containers. The compactor has been maintained in good operating condition over the years; however, it has surpassed standard life assumptions and replacement is shown in Year 1. The rolling waste containers are currently replaced as-needed and are shown throughout the plan being maintained from operating accounts.
25. The development features a full coverage fire sprinkler system augmented by a fire pump and has a backflow prevention device in place (designed to keep stagnant sprinkler water from flowing back into the potable water system). The Leeson 75-horsepower electric fire pump, 2-horsepower Grundfos jockey pump, and Firetrol transfer switch and controller are reportedly tested and serviced on a regular basis and there were no reported operational issues regarding the fire suppression system were reported during the assessment. A future allowance to overhaul the fire pump, jockey pump, transfer switch, and controller is shown in Year 13. Although operational, the aging jockey pump exhibits considerable corrosion at its flange and base; and replacement is shown in Year 1.
26. The parking garage features a dry-pipe fire suppression system with 3/4-horsepower compressor. Future compressor

replacement is shown in Year 5, after twenty-five years of use.

- 27. The parking garage features a ToxAlert carbon monoxide (CO) detection system with nine wall-mounted CO detectors and one control panel. The system monitors the CO level in the garages and activates four wall-mounted intake and exhaust fans when an established CO level is detected. Future replacement of the CO detection system (including monitors and control panel) is shown in Year 3. Allowances to overhaul the exhaust fan motors, belts, and controls are shown over two years beginning in Years 1 and 11. In 2017, new Honeywell VFD's were installed on the garage fans. Replacement of these units is shown in Years 11-12, after fifteen years of use.
- 28. The building has two, Carrier WeatherMaster 4-ton units, which provide fresh and conditioned air to the common hallways. The units are located on the roof and are shown for replacement in Year 4 after twenty years of service.
- 29. The lobby, front desk area, fitness room, locker rooms, and rear ground floor area are heated and cooled via Carrier ceiling-mounted water-source heat pumps. No operating issues were reported; and future gradual replacement of these units is shown in Years 12-15, at one unit per year.
- 30. Stairwell smoke ventilation fans are believed to date to original construction and are shown for replacement in Year 1. Allowances for as-needed replacement of the various rooftop ventilation fans serving the resident kitchens and bathrooms, laundry rooms, locker rooms, and trash rooms are shown annually throughout the plan.
- 31. The controls, 5-horsepower pumps, and pressure tank components of the SyncroFlo domestic cold water pressure booster unit were installed in 2015 and appear to be in good condition and no problems were reported. Future costs to replace pumps and to upgrade the panel are shown in Year 7.
- 32. The units are individually metered for electricity consumption. No problems/concerns were reported with regards to the building's electrical systems and components, however due to its age, allowances for periodic infra-red, Megger, DLRO, and injection testing and maintenance of the main distribution equipment, switch gear, and automatic transfer switches are shown every five years starting in Year 1. Costs include utility, permit, and city code enforcement inspection fees.
- 33. A 300 kW Caterpillar diesel-powered standby generator, located on the 7<sup>th</sup>-floor level provides emergency power to key building systems including elevators, emergency lighting, ventilation, and other systems managed by the fire alarm control panel. No operational problems were reported; however, the generator is approaching the end of its expected useful service life of thirty-five years and replacement is shown in Year 2. Periodic replacement of the generator starter batteries is seen as an operating expense going forward.
- 34. The building is equipped with a SimplexGrinnell 4100U fully addressable fire alarm control panel with integrated command center and EVAC (emergency voice alarm communication) system, sub panels on each floor, and hard-wired end devices (smoke detectors, heat detectors, flow switches, pull stations, horn/strobes, etc.) throughout the building. The panel was installed, and all peripherals tested in 2009. No problems were reported regarding the system or its components. Panel and end unit (pull stations and smoke and heat detectors) replacement is shown in Year 5 after twenty years of use.
- 35. Building security is provided by multiple exterior and interior cameras, a monitor, and recorder. Allowances for system software upgrades and as-needed component replacements, upgrades, and additions are shown every five years beginning in Year 5.

36. There is a building wide in-unit intercom system which was reportedly replaced in recent years. An allowance to upgrade or replace the system in the future is shown in Year 16.
37. Visitor access is controlled by a large wall-mounted entry intercom/door buzzer panel at the front lobby vestibule; replacement of the panel not anticipated, and the panel should be maintained throughout from operating accounts.
38. In 2020, new key-fob panels were installed at the main entry, the garage exterior entry doors, and the garage vestibules. Future replacement of the panels and the key-fobs are shown in Year 20.
39. Building security is facilitated via a video surveillance system with several strategically located interior and exterior cameras coupled with a digital video recording system at the concierge desk. No problems or concerns were reported with regards to the developments security camera system. Periodic costs for isolated camera replacement and/or component upgrades are shown every five years starting in Year 5.
40. The building is served by two hoist-type elevators, one each located at the east and west ends of the building. Both elevators underwent a complete overhaul and refurbishment in 2014 including new Imperial 25-horsepower overhead traction machines, new solid-state controller/dispatchers with Magnetek HVP-900 AC drives, and all new cables, rollers, and governors. The traction machines should have a generally long useful service life of thirty-five years, and therefore subsequent replacement is not anticipated within the twenty-year time-frame of this plan. An allowance to overhaul both machines is shown in Year 8 after 50% of their expected useful service life has been reached.
41. The elevator penthouses have split system heat pumps to cool and heat the space; future replacement is shown in Year 8 after fifteen years of use.
42. The elevator cab interior finishes, last updated in 2005, include wood laminate panels, brass trim. The carpeted floors were replaced in 2020. Future allowances to refurbish the cab interiors and replace/update the door operators are shown in Year 8.

## **Building Architectural Systems**

The Bay Square Condominium property consists of a single structure, with a two-level partially below grade garage and commercial spaces on the first floor. Because of its sloping site there are seven above-grade stories at its front (Massachusetts Avenue) elevation and nine above-grade stories at the rear (Green Street) elevation. The building is predominately clad in face-brick with precast concrete decorative trim bands, lintels, and sills. Units feature a mix of Juliet-style balconies, full balconies with pre-cast concrete deck pavers, and large open rooftop terraces with concrete deck pavers. The two-level main parking garage is accessed off of Bay Street (west elevation). Each level features separate entry and exit powered overhead doors flanking a flush metal passage door. A separate garage for the exclusive use of the townhouse residents is accessed off of Green Street and features a single dual-use entry and exit vehicle door with adjacent flush metal passage door.

Windows are predominately fiberglass slider-type models with insulating glass units (IGUs), all newly installed in 2015. The first-floor commercial units as well as the lobby and fitness center feature large fixed IGU panels. The front entrance features a pair of double-leaf, full-lite, aluminum-framed glass entry doors (one exterior set and one interior vestibule set leading into

the lobby), and several single-leaf, full-lite, aluminum-framed glass doors provide entry into the commercial units as well as egress out to the rear courtyard and pool deck. The various service entrances, stairwell egresses, loading dock, rooftop access, and elevator machine room penthouses all feature a mix of single and double-leaf flush metal service doors. All of the unit doors and unit specific windows are believed to be the responsibility of the individual unit owners and are not included in the plan.

The building has several flat roofs with a mix of adhered Sarnafil polyvinyl chloride (PVC) membrane roof coverings and EPDM rubber membrane coverings, some covered by pre-cast concrete deck pavers to form private rooftop terraces for select units. The top floor of the building features a Mansard-style roof with faux-slate fiber-cement shingle covering.

Interior common spaces include the front entry vestibule; a large light-filled lobby with concierge desk, elevators and mail service areas; a resident-use fitness center with professional-grade equipment and adjacent men's and women's locker rooms complete with showers and saunas; a small library and meeting room with adjacent kitchenette; laundry facilities; as well as residence hallways and egress stairwells. Finishes in these areas include painted drywall walls; a mix of stone tile, ceramic tile, carpet, vinyl composition tile (VCT) and bare concrete flooring; and a mix of painted drywall and suspended acoustic tile ceilings.

**43. Costs related to the development's architectural systems total \$3,603,220 or \$36,032 per % of B.I. in inflated dollars.**

44. No problems related to the building foundation or framing systems were noted from available vantage points during the assessment. These systems are typically long-lived and not anticipated to require capital expenditures. However, an allowance has been carried in the plan for an engineering review of the structure every five years beginning in Year 2.
45. Both levels of the parking garage are finished with a concrete floor; the was sealed with an epoxy coating in 2007 and remains in generally good observable condition with normal age and use-related wear. The coating has a typical useful life of ten years; and costs to wash, prepare, and re-coat the upper garage epoxy surface are shown in Years 2 and 12. The ceiling of the upper garage is finished with suspended acoustical tiles which are believed to date to construction. Costs to replace the ceiling tiles are shown concurrent with the second epoxy coating in Year 12.
46. The lower garage and the townhouse unit garage both have original bare concrete surfaces with areas of age, use, salt, and moisture related surface deterioration visible throughout. Costs to repair, resurface, clean, etch, and then epoxy-coat the lower garage surface are shown in Year 1. Future costs to clean and re-apply the epoxy coating are shown in Year 11.
47. Access to the garage is by fiberglass segmented panel overhead doors powered by  $\frac{1}{2}$ -horsepower hoist operators of various manufacturer and age. Costs to replace the garage door are shown over five years beginning in Years 1 and 16. Periodic replacement costs for the door operators are shown every three years throughout the plan.
48. The main entry, vestibule and glass wall system were replaced in 2020 and remain in good condition; these should be maintained throughout from operating accounts.
49. The single-leaf aluminum framed glass door to the rear courtyard was replaced in 2018. Similar doors from the fitness center to the pool and the four garage vestibules are believed to be original; replacement is shown in Year 2. Each of the

garage vestibule doors have a power door opener, two were added in 2013 and two were replaced in 2016. Future replacement is shown after ten years of use.

- 50. First floor commercial single-leaf glass doors are believed to be the responsibility of the individual unit owner and not shown for replacement in the plan.
- 51. Gradual replacement of the single-leaf flush metal service doors is shown over a four-year period starting in Year 2. The loading dock double-leaf flush metal service doors have been replaced in recent years and should be maintained throughout the plan from operating.
- 52. Exterior bricks and mortar appeared to be generally good condition from available vantage points. Management has reported an ongoing infiltration issue within the courtyard, based on discussions with the Board, an allowance is shown in Year 1 to address this façade. An allowance for a professional review and as-needed brick repointing and repair of the remainder of the building is shown in Years 2 and 17.
- 53. Visible efflorescence (white crystalline masonry surface deposits) was noted at the southwest (Bay St/Green St) corner, and along Green Street. Costs for periodic power-washing to remove the damaging salts are shown in Years 7 and 12. Interim needs are included with the brick repair costs.
- 54. All exterior joint caulking (control joints and window perimeters) was reportedly spot replaced in 2005. Costs to remove and replace all control joint caulking are shown in Years 2 and 17 concurrent with the other exterior repairs.
- 55. All sliding glass windows were newly replaced in 2015 and remain in good operable condition. Future replacement is not anticipated within the twenty-year timeframe of the plan. All fixed window panels are original to the 1988 construction, however; and full replacement is shown in Year 2, based on a thirty-five-year expected useful service life.
- 56. Management reported that the Juliet balcony railings were all painted in 2010 with a durable, long-lasting RhinoShield ceramic coating which carries a twenty-five-year materials warranty. Future costs to re-apply the coating are shown in Year 14, based on the twenty-five-year warranty timeframe.
- 57. The private terrace and Mansard-level balcony brick parapet walls are topped with a square metal railing system. Repainting of all terrace and Mansard-level balcony railings is included with the roof replacement; future needs are seen as being funded from operating.
- 58. A mix of wall-mounted and recessed, HID and fluorescent fixtures facilitate illumination along the building perimeters; replacement allowances are shown annually throughout the plan.
- 59. The building currently does not have a roof anchor system; an allowance has been carried in Year 2 for the installation of the system.
- 60. The main structure roof and mansard balcony PVC membranes were all installed in 2009 and remain in good observable condition with no visible significant ponding and no reported leaking issues. Replacement of these membranes is shown in Year 8, after twenty years of use. Replacement of the lower southwest (townhouse) PVC membrane (installed in 2007) is shown in Year 6.
- 61. The membrane under the large southwest private terrace was reportedly replaced in 2020 with a twenty-five-year EPDM rubber membrane; replacement of this roof is not anticipated during the plan.

62. The EPDM membranes under the front elevation 6th-floor private terrace and the terrace over the main entrance are planned for 2021; this is shown as a Year 1 cost.
63. The remaining private terraces (6<sup>th</sup> floor southeast green roofs, east elevation first-floor private terrace) all reportedly date to 2005. Replacement of these membranes with durable PVC membranes is shown in Years 4-6. The lower garage entrance roof along Green Street was replaced with the planter project in 2017; future replacement is shown in Year 16.
64. The mansard-level faux-slate fiber-cement shingles are reportedly inspected and repaired as-needed annually. The shingles have a long useful service life, and full replacement is not anticipated within the timeframe of this plan.
65. Common residential hallways were last refurbished in 2019 which included painting of the walls and ceilings and new carpeting throughout. Future costs for a similar scope are shown in Year 13 after fifteen years. Lighting in the hallways is produced by frosted glass wall sconces; an allowance to upgrade the lighting is shown in Year 2.
66. The first floor, two-story lobby was redecorated in 2020. Work included new carpeting, fabric wall coverings, paint, new furniture, artwork, lighting, and new concierge desk. An allowance for a similar redecorating scope is shown in Year 15.
67. The emergency egress stairs feature painted concrete and walls and sealed concrete treads and landings. Painting of the stairways is seen as being manageable from operating accounts; no costs have been shown in the plan.
68. The fitness center features rolled rubber flooring. The rubber is shown for replacement in Years 1 and 16. The gym features several pieces of commercial-grade cardio machines and resistance equipment as well as dumbbells and television sets, all varying in age. Annual allowances are shown throughout the plan for as-needed replacements and upgrades.
69. The kitchenette, laundry rooms, and the garage elevator vestibules all feature aging VCT flooring. Replacement of all VCT is shown in Years 1 and 16. The compact kitchen unit and appliances are currently used by site staff only and are shown being maintained throughout the plan from operating accounts.
70. The men's and women's locker rooms were renovated in 2019 and included new ceramic tile and vinyl plank flooring, sink counters, stall dividers, showers and fixtures, as well new wood lockers. The locker rooms and fitness center were all painted during the renovations. Future repainting needs are shown in Years 8 and 18.

**Additional Notes:**

1. The Physical Assessment of the property was conducted on March 16, 2021. Additional information was provided to ON-SITE INSIGHT by site staff and others. OSI was represented on this assignment by Tina Cardoso. We would like to thank Management and the Board for their assistance.
2. Regular updates of this plan are recommended to ensure careful monitoring of major building systems and to adjust the program to accommodate unanticipated circumstances surrounding the buildings, operations, and/or occupants.
3. This report is delivered subject to the conditions on Appendix A, *Statement of Delivery*.



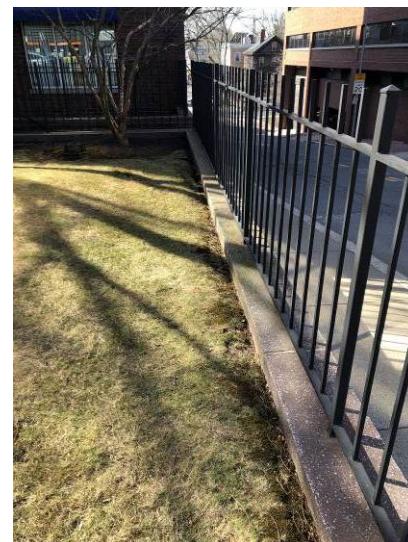
View of the enclosed park at the front of the building.



The main entry is accessed off of Massachusetts Avenue by concrete paved walkways.



View of the loading dock driveway and sidewalk at the right. The loading dock platform was repaired and sealed in 2016.



View of the metal fencing around the front park.



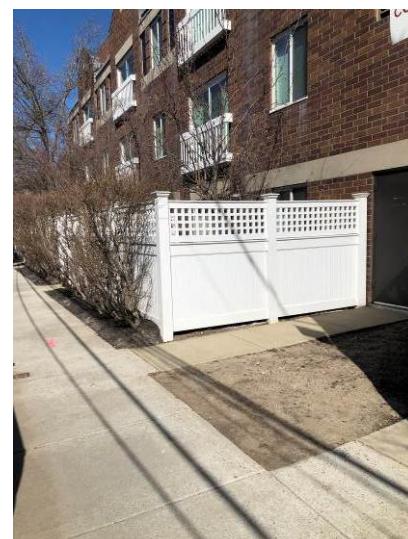
View of the original pier lighting at the front entry walkways.



The Bay Street side of the front park has brick retaining walls and recently replaced concrete stairs.



View of the fitness center entrance leading to the pool deck.



Azek PVC fencing at Green Street townhouse units installed in 2012 and is in good current condition.



View of the pool and spa. Note the brick and stone planters were refurbished in 2017-2018 and the cover was replaced in 2015.



View of the Azek PVC fencing, arbor, and gate which were installed in 2012.



The PVC lattice fencing at the end of the pool was installed in 2017.



An Azek PVC framed pergola, installed in 2009, frames the rear lobby entrance.



RayPak 399-MBH natural gas-fired boilers used to heat the pool water, both were installed in 2008.



View of the various pool and spa mechanicals including sand filters, chlorinators, and pumps.



View of the RBI Flexcore condensing boilers, each with an input rating of 1500-MBH serving the two-pipe fan coil unit system.



The RBI Dominator 300-MBH boiler was installed in 2016 to produce hydronic heat for the boiler, storage, and generator rooms.



Grundfos Magna3 stainless steel circulator pumps circulate boiler water.



View of one of two Intellihot, natural gas-fired, 1001-MBH domestic hot water boilers. Both boilers were installed in 2016 and are in good current condition.



View of the Leeson WattSaver 30-hp, base-mounted service loop pumps.



View of the 20-hp, base-mounted cooling tower loop circulating pumps.



Teco MA7200 variable frequency drives (VFD) were installed in 2014 on each service loop pump.



View of the Alfa-Laval A15-BFG, 4600 sf, 150 PSI, plate and frame heat exchanger believed to be original to the construction of the building.



View of the Evapco AT-112-612, induced-draft, counterflow cooling tower located on the roof.



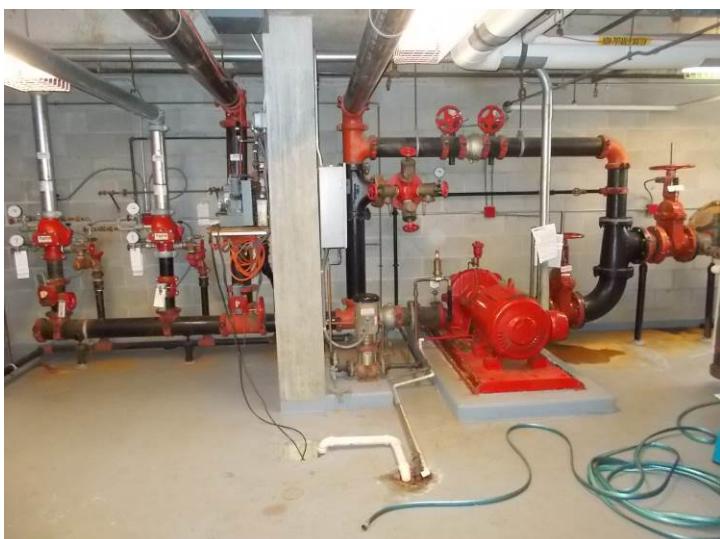
View of the chut-fed, hydraulic compactor and two-cubic yard rolling trash containers.



One of two, Carrier WeatherMaster, 4-ton, single-package rooftop units serving the common hallways.



The elevator penthouses are heated / cooled by split system heat pumps.



View of the Lincoln wet-pipe fire suppression system 75-horsepower electric fire pump (on the right); maintained, tested, and serviced on a regular basis.



The ageing 2-horsepower fire-suppression system jockey pump shows signs of leaking and corrosion at its flange and base.



View of the SyncroFlo cold water booster system with dual Baldor 5-horsepower pumps.



The 300 kW Caterpillar diesel-fired generator is located on the 7th floor level.



View of one of four garage ventilation and exhaust fan motors.



New Honeywell VFD's were installed in 2017 on all four of the garage ventilation fans.



View of the door buzzer/intercom panel located at the front entrance vestibule.



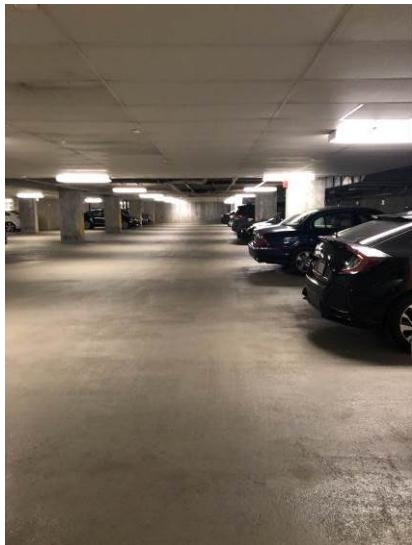
View of the Simplex 4100U fully addressable fire alarm control panel with command center.



View of the west elevator Imperial Electric 25-horsepower traction machine located in the elevator penthouse. The east elevator is similar.



Both elevators feature wood laminate panels with brass trim and new carpeted floors.



The upper garage features suspended acoustical tile ceiling and epoxy deck surface coating.



The lower garage concrete deck exhibits areas of surface deterioration.



View of the townhouse unit garage.



View of one of four garage vestibules. All vestibules have power door openers and fob entry panels.



View of a typical wall-mounted CO sensors located throughout the garage. The system activates the four intake and exhaust fans.



The upper and lower garage each have a pair of fiberglass segmented-panel overhead doors with power door operators.



The townhouse garage has a single fiberglass overhead door; access is at the rear of the building



Rusting and surface deterioration was observed on many of the garage doors.



View of the front (north) façade of the building.



Alternate view of the north façade, note the commercial units on the ground floor.



View of the west (Bay Street) façade and partial rear façade of the building.



View of the rear south east corner of the building; the pool sits atop the garage level at this corner.



View of the Sarnafil PVC membrane roof installed in 2009.



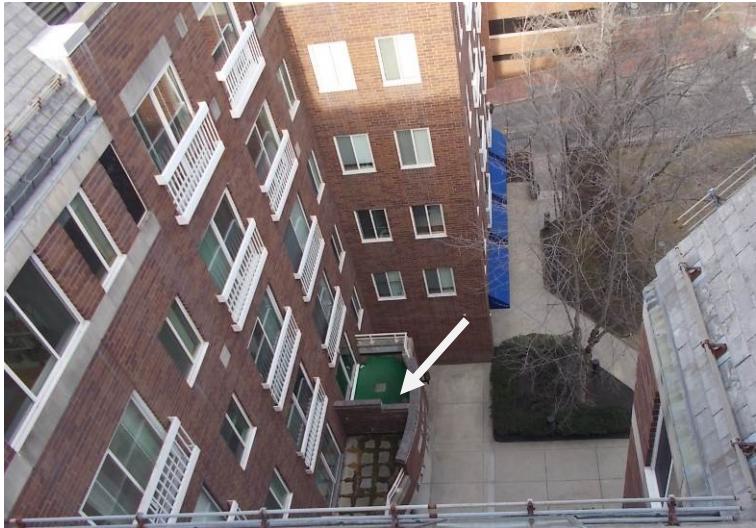
Adhered reflecting polyvinyl chloride (PVC) membrane on the 2nd floor roof installed in 2007.



The southwest private terraces had new EPDM membrane installed in 2020 and the concrete pavers were reused/replaced.



The 6<sup>th</sup> floor southeast private terrace roofs (green roofs) have membranes that are believed to date to 2005.



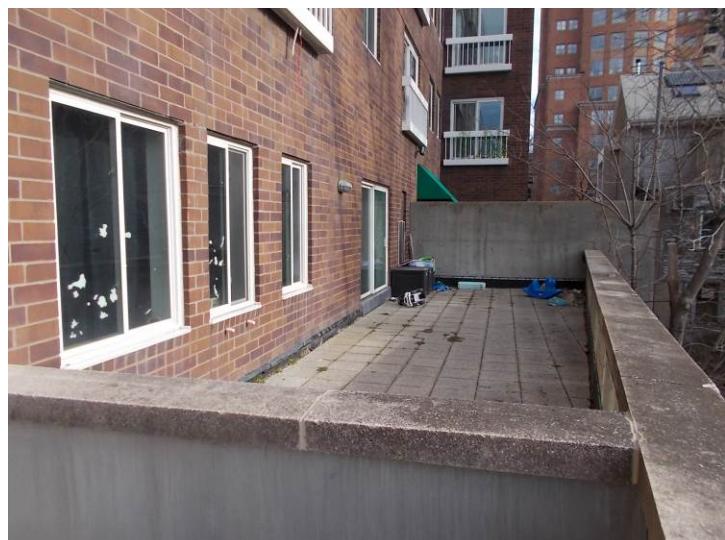
The EPDM membrane at the front entry private terrace is planned for replacement in 2021.



The EPDM membrane at the front 6th-Floor private terrace is planned for replacement in 2021.



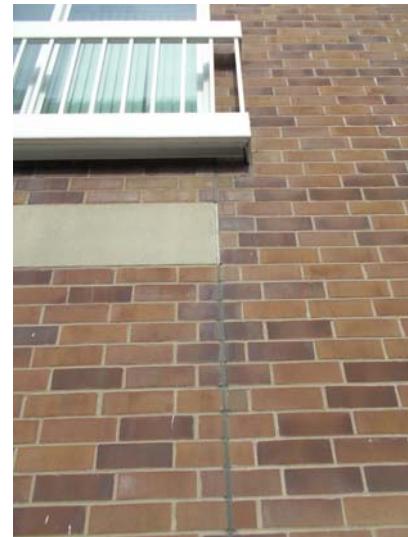
View of the fiber-cement faux-slate shingles on the mansard.



View of the first-floor private patio finished with concrete pavers; the membrane dates to 2005.



Visible efflorescence noted at various elevations of the building.



The Juliet balcony railings were painted with RhinoShield ceramic coating in 2010. The control joint caulking was spot repaired and replaced in 2005; some seam separation and cracking was observed.



View of the two-story lobby recently refurbished in 2020.



View of the new entry vestibule and entry doors installed in 2020.



Alternate view of the entry lobby with fabric wall coverings.



The concierge desk and carpeting were replaced with the lobby refurbishment.



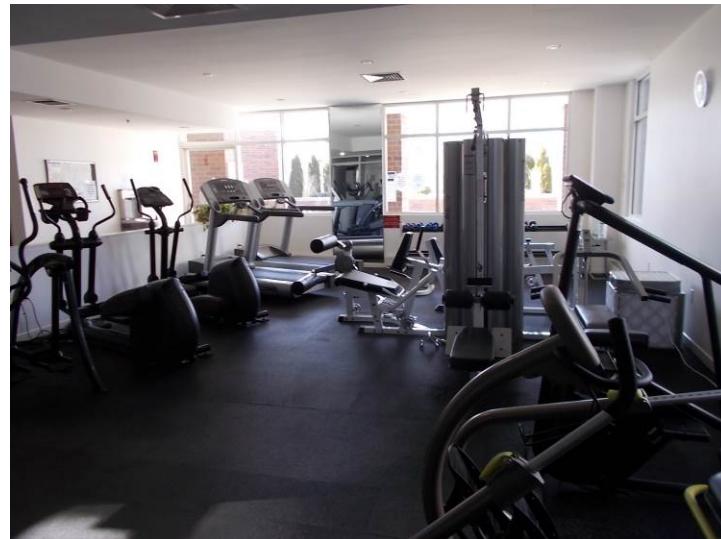
View of a typical common hallway. All halls were painted, and the carpeting was replaced in 2019. The frosted glass wall sconces are believed to be original.



View of the typical laundry room with original wallpaper walls and vinyl composition floor tiles.



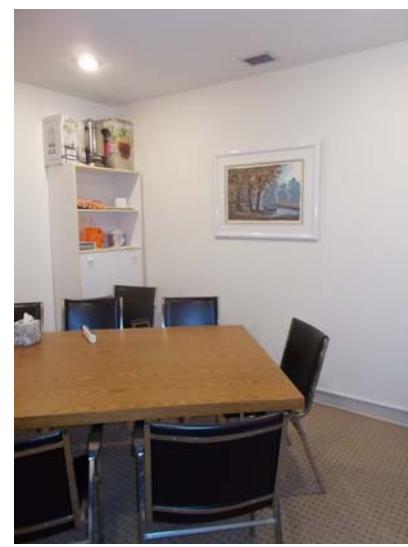
The locker rooms were refurbished in 2019.



View of the fitness center with rolled rubber flooring and various commercial-grade machines.



View of the employee kitchenette with original vinyl tile flooring and suspended acoustic tile ceiling.

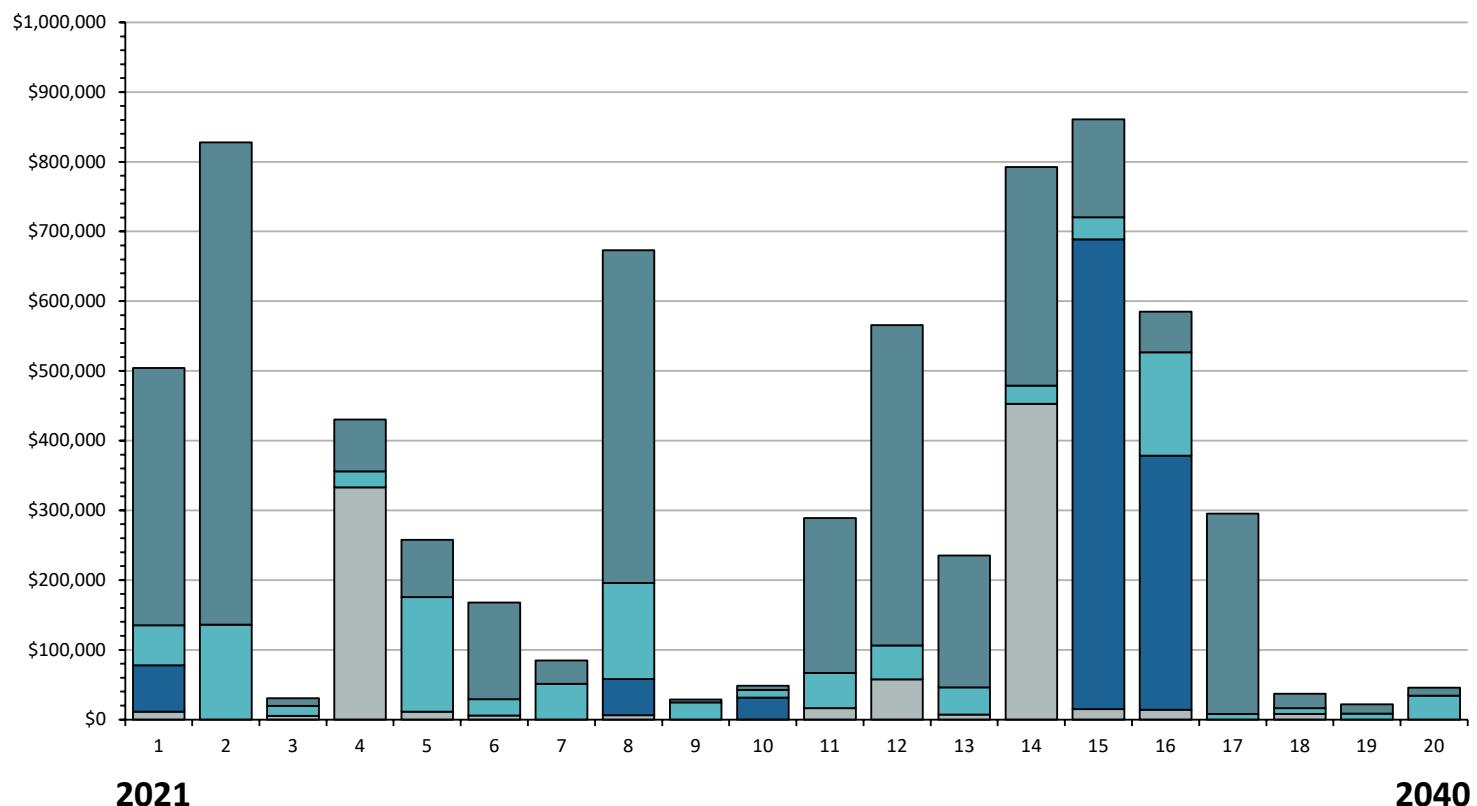


View of the meeting room with older carpeting.

# Capital Needs Summary

# Bay Square Condominium

In inflated dollars (3%)



2021

2040

## Total Costs by Building System (inflated dollars)

	In Year 1	In Years 1-10	In Years 1-20
Site Systems and Pool	\$11,350 or \$114 /%B.I.	\$372,154 or \$3,722 /%B.I.	\$942,674 or \$9,427 /%B.I.
Mechanical Room	\$66,300 or \$663 /%B.I.	\$149,638 or \$1,496 /%B.I.	\$1,187,981 or \$11,880 /%B.I.
Building Mech. & Elec.	\$57,600 or \$576 /%B.I.	\$643,587 or \$6,436 /%B.I.	\$1,047,058 or \$10,471 /%B.I.
Building Architectural	\$369,073 or \$3,691 /%B.I.	\$1,887,771 or \$18,878 /%B.I.	\$3,603,220 or \$36,032 /%B.I.

In inflated dollars: \$504,323 or \$5,043 /%B.I.

In current dollars: \$504,323 or \$5,043 /%B.I.

	In Year 1	In Years 1-10	In Years 1-20
Site Systems and Pool	\$11,350 or \$114 /%B.I.	\$372,154 or \$3,722 /%B.I.	\$942,674 or \$9,427 /%B.I.
Mechanical Room	\$66,300 or \$663 /%B.I.	\$149,638 or \$1,496 /%B.I.	\$1,187,981 or \$11,880 /%B.I.
Building Mech. & Elec.	\$57,600 or \$576 /%B.I.	\$643,587 or \$6,436 /%B.I.	\$1,047,058 or \$10,471 /%B.I.
Building Architectural	\$369,073 or \$3,691 /%B.I.	\$1,887,771 or \$18,878 /%B.I.	\$3,603,220 or \$36,032 /%B.I.

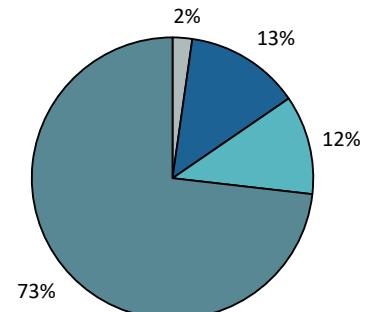
In inflated dollars: \$3,053,150 or \$30,531 /%B.I.

In current dollars: \$2,782,033 or \$27,820 /%B.I.

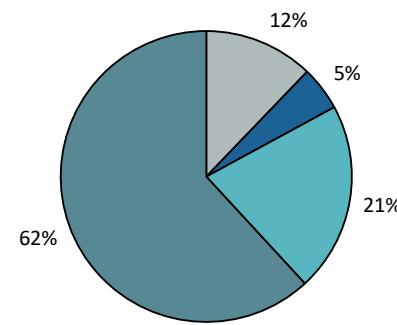
	In Year 1	In Years 1-10	In Years 1-20
Site Systems and Pool	\$11,350 or \$114 /%B.I.	\$372,154 or \$3,722 /%B.I.	\$942,674 or \$9,427 /%B.I.
Mechanical Room	\$66,300 or \$663 /%B.I.	\$149,638 or \$1,496 /%B.I.	\$1,187,981 or \$11,880 /%B.I.
Building Mech. & Elec.	\$57,600 or \$576 /%B.I.	\$643,587 or \$6,436 /%B.I.	\$1,047,058 or \$10,471 /%B.I.
Building Architectural	\$369,073 or \$3,691 /%B.I.	\$1,887,771 or \$18,878 /%B.I.	\$3,603,220 or \$36,032 /%B.I.

In inflated dollars: \$6,780,934 or \$67,809 /%B.I.

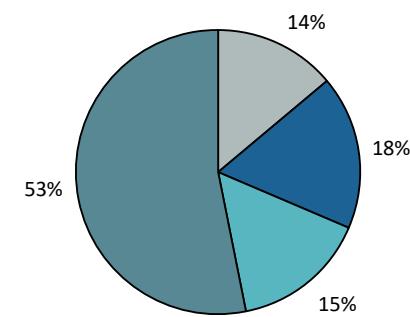
In current dollars: \$5,300,049 or \$53,000 /%B.I.



Year One Distribution



Ten Year Distribution



Twenty Year Distribution

# Capital Needs Summary

## Bay Square Condominium

Cambridge, MA

OSI Ref: 21043  
 Property Age: 33 Years  
 Occupancy: Families

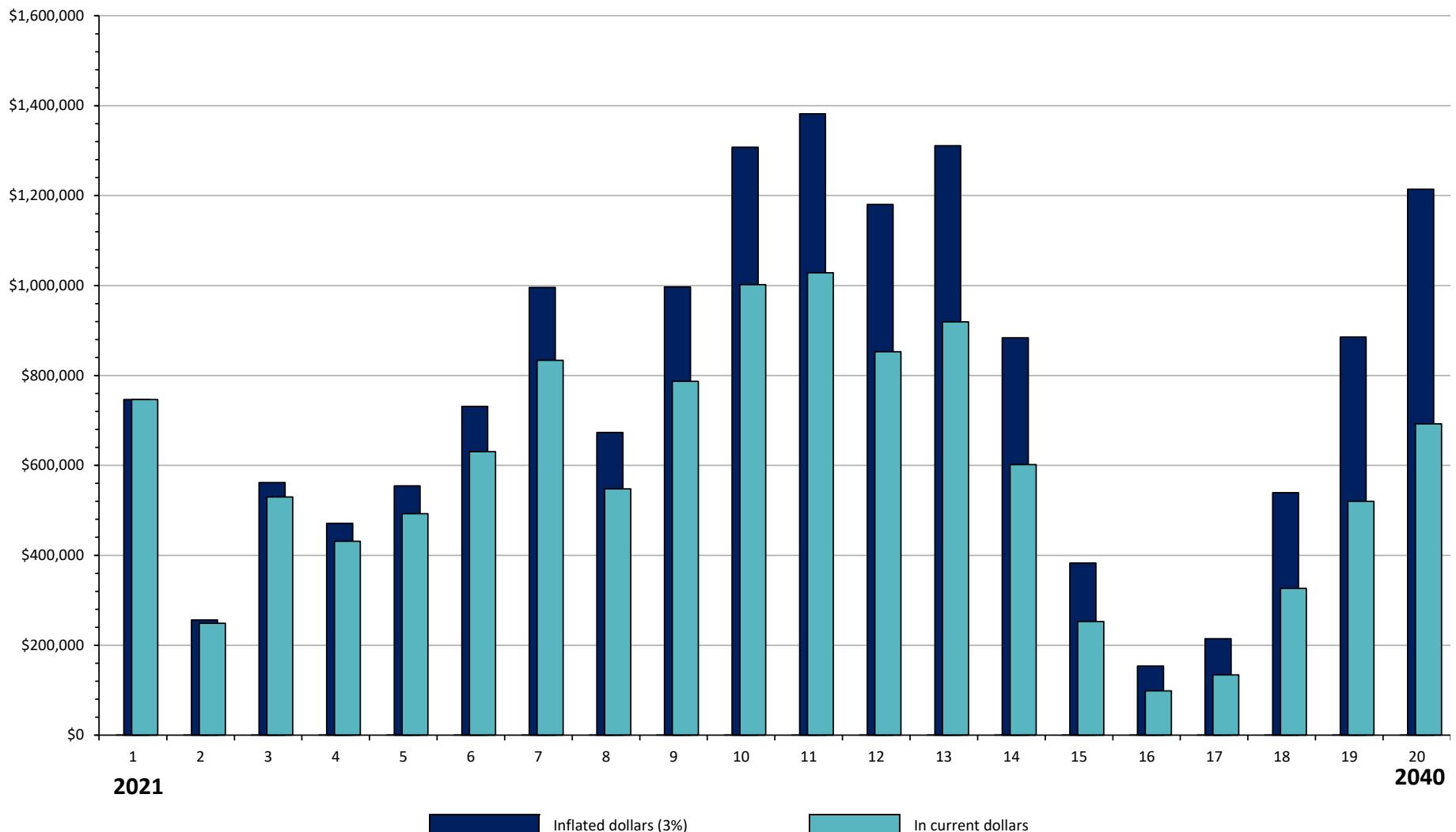
Number of Buildings: 1  
 Total Number of Units: 114

	2021 Year 1	2022 Year 2	2023 Year 3	2024 Year 4	2025 Year 5	2026 Year 6	2027 Year 7	2028 Year 8	2029 Year 9	2030 Year 10
<b>Site Systems</b>										
Surface	\$6,350	\$0	\$5,158	\$0	\$11,025	\$0	\$0	\$5,980	\$0	\$0
Pool and Spa	\$5,000	\$0	\$0	\$332,845	\$0	\$5,796	\$0	\$0	\$0	\$0
Site Sub-Total	<b>\$11,350</b>	<b>\$0</b>	<b>\$5,158</b>	<b>\$332,845</b>	<b>\$11,025</b>	<b>\$5,796</b>	<b>\$0</b>	<b>\$5,980</b>	<b>\$0</b>	<b>\$0</b>
<b>Mechanical Room</b>										
Boilers	\$66,300	\$0	\$0	\$0	\$0	\$0	\$0	\$52,024	\$0	\$31,315
Boiler Room Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Mechanical Sub-Total	<b>\$66,300</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$52,024</b>	<b>\$0</b>	<b>\$31,315</b>
<b>Building Mech. &amp; Electrical</b>										
Mechanical	\$42,600	\$12,463	\$14,534	\$23,275	\$8,216	\$5,912	\$50,986	\$6,272	\$24,449	\$6,654
Electrical	\$15,000	\$123,600	\$0	\$0	\$156,333	\$17,389	\$0	\$0	\$0	\$4,306
Elevators	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$131,597	\$0	\$0
Mechanical & Electrical Sub-Total	<b>\$57,600</b>	<b>\$136,063</b>	<b>\$14,534</b>	<b>\$23,275</b>	<b>\$164,549</b>	<b>\$23,301</b>	<b>\$50,986</b>	<b>\$137,869</b>	<b>\$24,449</b>	<b>\$10,960</b>
<b>Building Architectural</b>										
Structural and Exterior	\$256,294	\$423,171	\$8,147	\$9,757	\$15,396	\$1,352	\$31,103	\$1,435	\$1,478	\$3,153
Roof Systems	\$100,800	\$206,000	\$0	\$62,067	\$63,929	\$134,679	\$0	\$465,916	\$0	\$0
Halls, Stairs, Lobbies	\$1,408	\$51,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Community Spaces	\$10,571	\$10,878	\$2,440	\$2,513	\$2,589	\$2,666	\$2,746	\$9,868	\$2,914	\$3,001
Building Architectural Sub-Total	<b>\$369,073</b>	<b>\$691,549</b>	<b>\$10,587</b>	<b>\$74,337</b>	<b>\$81,914</b>	<b>\$138,697</b>	<b>\$33,850</b>	<b>\$477,218</b>	<b>\$4,391</b>	<b>\$6,154</b>
<b>Total Capital Costs</b>	<b>\$504,323</b>	<b>\$827,612</b>	<b>\$30,279</b>	<b>\$430,457</b>	<b>\$257,488</b>	<b>\$167,795</b>	<b>\$84,836</b>	<b>\$673,090</b>	<b>\$28,840</b>	<b>\$48,429</b>

## Bay Square Condominium

Costs on these two pages are aggregated by category from the Capital Needs worksheets which follow. Total capital costs on these two pages are carried forward to line F of the Replacement Reserve Analysis(es) that follow.

2031 Year 11	2032 Year 12	2033 Year 13	2034 Year 14	2035 Year 15	2036 Year 16	2037 Year 17	2038 Year 18	2039 Year 19	2040 Year 20	
\$9,407	\$0	\$6,932	\$5,654	\$14,817	\$6,271	\$0	\$8,036	\$0	\$0	<b>Site Systems</b>
\$6,720	\$57,577	\$0	\$447,315	\$0	\$7,790	\$0	\$0	\$0	\$0	Surface Pool and Spa
<b>\$16,127</b>	<b>\$57,577</b>	<b>\$6,932</b>	<b>\$452,969</b>	<b>\$14,817</b>	<b>\$14,061</b>	<b>\$0</b>	<b>\$8,036</b>	<b>\$0</b>	<b>\$0</b>	Site Sub-Total
\$0	\$0	\$0	\$0	\$568,053	\$364,409	\$0	\$0	\$0	\$0	<b>Mechanical Room</b>
\$0	\$0	\$0	\$0	\$105,881	\$0	\$0	\$0	\$0	\$0	Boilers Boiler Room Systems
<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$673,934</b>	<b>\$364,409</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	Mechanical Sub-Total
\$30,373	\$48,587	\$39,137	\$25,846	\$26,622	\$7,946	\$8,184	\$8,430	\$8,682	\$8,943	<b>Building Mech. &amp; Electrical</b>
\$20,159	\$0	\$0	\$0	\$4,992	\$140,217	\$0	\$0	\$0	\$25,356	Mechanical Electrical
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Elevators
<b>\$50,531</b>	<b>\$48,587</b>	<b>\$39,137</b>	<b>\$25,846</b>	<b>\$31,613</b>	<b>\$148,163</b>	<b>\$8,184</b>	<b>\$8,430</b>	<b>\$8,682</b>	<b>\$34,299</b>	Mechanical & Electrical Sub-Total
\$219,198	\$456,164	\$3,446	\$310,105	\$10,840	\$8,556	\$270,396	\$7,011	\$9,349	\$7,438	<b>Building Architectural</b>
\$0	\$0	\$0	\$0	\$0	\$31,159	\$0	\$0	\$0	\$0	Structural and Exterior Roof Systems
\$0	\$0	\$182,456	\$0	\$126,101	\$2,194	\$0	\$0	\$0	\$0	Halls, Stairs, Lobbies
\$3,091	\$3,184	\$3,279	\$3,378	\$3,479	\$16,469	\$16,947	\$13,262	\$3,916	\$4,033	Community Spaces
<b>\$222,289</b>	<b>\$459,348</b>	<b>\$189,181</b>	<b>\$313,483</b>	<b>\$140,420</b>	<b>\$58,378</b>	<b>\$287,343</b>	<b>\$20,272</b>	<b>\$13,265</b>	<b>\$11,471</b>	Building Architectural Sub-Total
<b>\$288,948</b>	<b>\$565,511</b>	<b>\$235,250</b>	<b>\$792,298</b>	<b>\$860,785</b>	<b>\$585,010</b>	<b>\$295,527</b>	<b>\$36,738</b>	<b>\$21,947</b>	<b>\$45,769</b>	<b>Total Capital Costs</b>



*Reported Reserve Balance as of 01/31/2021 : \$947,393*

*Estimated Reserve Balance as of 01/01/2021 : \$920,944*

*Current annual contributions to reserves : \$317,392*

At the end of Year One, Reserve Balances are projected to be: **\$746,425**

At the end of Year 20, Reserve Balances are projected to be: **\$1,214,452**

*All projected capital needs are met throughout the plan*

1. Reported replacement reserve balance of \$920,944, or \$9,209 per one percent of beneficial interest (per % of B.I.) on January 1, 2021
2. Current annual contribution to reserves of \$317,392 (\$3,174 per % of B.I per year) increased to \$330,000 in Year 2.
3. Annual contribution shown increased at 0.5% annually throughout the plan.

# Replacement Reserve (RR) Analysis: Plan One

# Bay Square Condominium

		Reserve Funding In Year 1									
		Starting replacement reserve balance:		\$920,944 or \$9,209/%B.I.							
		Contributions to Reserves:		\$317,392 or \$3,174/%B.I.							
		2021 Year 1	2022 Year 2	2023 Year 3	2024 Year 4	2025 Year 5	2026 Year 6	2027 Year 7	2028 Year 8	2029 Year 9	2030 Year 10
<b>(A) Reserve Balances</b>											
Starting Replacement Reserves		\$920,944	\$746,425	\$256,278	\$562,090	\$470,973	\$554,427	\$731,176	\$995,846	\$673,516	\$997,137
<b>(B) Annual Funding</b>											
Contributions Indexed at 0.5%		\$3,174	\$3,190	\$3,300	\$3,316	\$3,333	\$3,350	\$3,366	\$3,383	\$3,400	\$3,417
<b>(C)</b>	Additional Contributions		\$110								
	3,174		3,300	3,300	3,316	3,333	3,350	3,366	3,383	3,400	3,417
<b>(D)</b> Total Annual Reserve Funding		\$317,392	\$330,000	\$330,000	\$331,650	\$333,308	\$334,975	\$336,650	\$338,333	\$340,025	\$341,725
<b>(E)</b> Interest on Reserves at 1.50%		\$12,412	\$7,464	\$6,092	\$7,690	\$7,633	\$9,570	\$12,856	\$12,427	\$12,437	\$17,157
<b>Total Funds Available</b>		<b>\$1,250,748</b>	<b>\$1,083,889</b>	<b>\$592,370</b>	<b>\$901,431</b>	<b>\$811,915</b>	<b>\$898,972</b>	<b>\$1,080,682</b>	<b>\$1,346,606</b>	<b>\$1,025,977</b>	<b>\$1,356,018</b>
<b>(F)</b> Total Capital Cost		\$504,323	\$827,612	\$30,279	\$430,457	\$257,488	\$167,795	\$84,836	\$673,090	\$28,840	\$48,429
<b>(G)</b>		<b>Reserve Balances</b>	<b>\$746,425</b>	<b>\$256,278</b>	<b>\$562,090</b>	<b>\$470,973</b>	<b>\$554,427</b>	<b>\$731,176</b>	<b>\$995,846</b>	<b>\$673,516</b>	<b>\$997,137</b>
Outside Capital:											
Adjusted Reserve Balances		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

## Notes:

1. Reported replacement reserve balance of \$920,944, or \$9,209 per one percent of beneficial interest (per % of B.I.) on January 1, 2021
2. Current annual contribution to reserves of \$317,392 (\$3,174 per % of B.I. per year) increased to \$330,000 in Year 2.
3. Annual contribution shown increased at 0.5% annually throughout the plan.
4. Anticipated capital needs funded throughout the 20-year plan

\*ANNUAL RR CONTRIBUTIONS are shown being indexed for inflation at the % specified above except when Additional Contributions are called for.

Line C, Additional Contributions allows for material adjustments in annual RR funding that would enable the property to meet all projected needs out of reserves through Year 20.

\*\*INTEREST EARNINGS ON RESERVES are calculated on 100% of starting balances and on 50% of the total annual contribution for the year at the rate shown

Reserve Funding In Year 20											
Projected replacement reserve balance is \$1,214,452					This is \$12,145 per % B.I. in inflated dollars or \$11,047 per % B.I. in uninflated dollars						
Projected annual funding to reserves is \$359,201					This is \$3,592 per % B.I. in inflated dollars or \$3,267 per % B.I. in uninflated dollars						
2031 Year 11	2032 Year 12	2033 Year 13	2034 Year 14	2035 Year 15	2036 Year 16	2037 Year 17	2038 Year 18	2039 Year 19	2040 Year 20		
\$1,307,589 \$1,382,097 \$1,180,815 \$1,310,991 \$883,640 \$382,635 \$153,724 \$214,806 \$539,317 \$885,389									Reserve Balances (A)		
\$3,434 \$3,452 \$3,469 \$3,486 \$3,504 \$3,521 \$3,539 \$3,556 \$3,574 \$3,592									Annual Funding (B)		
3,434 3,452 3,469 3,486 3,504 3,521 3,539 3,556 3,574 3,592									Contributions Indexed at 0.5% Additional Contributions (C)		
\$343,433 \$345,150 \$346,876 \$348,611 \$350,354 \$352,105 \$353,866 \$355,635 \$357,413 \$359,201									Total Annual Reserve Funding (D)		
#	\$20,022	\$19,079	\$18,549	\$16,337	\$9,426	\$3,993	\$2,743	\$5,614	\$10,606	\$15,632	Interest on Reserves at 1.50% (E)
\$1,671,045 \$1,746,327 \$1,546,241 \$1,675,938 \$1,243,420 \$738,733 \$510,333 \$576,055 \$907,336 \$1,260,221									Total Funds Available		
\$288,948 \$565,511 \$235,250 \$792,298 \$860,785 \$585,010 \$295,527 \$36,738 \$21,947 \$45,769									Total Capital Cost (F)		
\$1,382,097 \$1,180,815 \$1,310,991 \$883,640 \$382,635 \$153,724 \$214,806 \$539,317 \$885,389 \$1,214,452									Reserve Balances (G)		
\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0									\$0		

# Bay Square Condominium

## SITE SYSTEMS

Replacement Items	Quantity	Cost per unit in 2021 \$\$	Total Cost in 2021 \$\$	AGE (Years)	EUL (Years)	(Expected Useful life)			Notes
						Replacement Schedule	Year of action AND duration of project		
<b>SURFACE</b>									
Loading Dock Entry and Platform	1,508 sf	6.50	\$9,796	5	10	5 /15	in 1 Year	Reinforced poured concrete; concrete repaired and sealed in 2016	Future allowance for sealcoating throughout the plan
Loading Dock Walkway	140 sf		\$0	33	25			Concrete walkway along loading dock entry drive	Maintain throughout from Operating
Concrete Walkways	5700 ttl sf			varies	5	3 /8 /13 /18	in 1 Year	Poured concrete rear elevation courtyard, front walkways, pool deck	Good conditions observed; allowances throughout for sectional repairs
Rear Courtyard Brick Platform	215 sf		\$0	8	30			Dry-laid brick platform at rear courtyard	Good conditions observed; reset or repair as-needed from Operating
Brick & Stone Planters	7 ea		\$0	4	25			Planter renovation completed in 2017-2018; maintain from Operating	Azek 6-foot high PVC fencing and gate at rear courtyard and pool area.
Fencing - PVC - Rear Courtyard	115 lf	35.00	\$4,025	9	25	16	in 1 Year	Installed in 2012; replacement based on 25-years expected useful life	Azek 6-foot high PVC fencing and additional gate installed with planter
Fencing - PVC - Rear Courtyard	90 lf		\$0	4	25			renovations; Monitor and maintain from Operating	renovations; Monitor and maintain from Operating
Fencing - PVC - Green Street	110 lf	35.00	\$3,850	11	25	14	in 1 Year	Azek PVC privacy fencing at Green Street townhouse units	Installed in 2012; replacement based on 25-years expected useful life
Fencing - Metal	700 sf	10.00	\$7,000	4	15	11	in 1 Year	Painted metal fence around front park; generally good conditions observed	Costs to scrape, prime, paint and minor repairs as-needed
Pergola	1 ea		\$0	12	30			Azek PVC framed pergola at rear courtyard building entrance	Installed in 2009; monitor and maintain from Operating
Site Lighting - Bollards	7 ea	750.00	\$5,250	33	30	1	in 1 Year	Original bollard lights at front elevation courtyard and walkway	Some leaning; replace with LED bollard fixtures; maintain from Optg.
Site Lighting - Pier Lights	2 ea	550.00	\$1,100	33	30	1	in 1 Year	Original painted metal lantern-style pier lights at Mass Ave entry gate	Replace with LED fixtures; maintain from Operating in future
Site Distribution Systems	1 ls		\$0	33	60			Full complement of municipal and utility provided services	No problems reported; Monitor and maintain all from Operating
<b>POOL AND SPA</b>									
Pool Deck Caulk	373 lf	15.00	\$5,595	3	15	12	in 1 Year	Poured concrete pool deck - included with concrete above for repairs	Caulking around pool and along pool deck perimeter, replaced in 2018
Pool Surface	1 ls	300000.00	\$300,000	6	10	4 /14	in 1 Year	Replacement cycles and costs based on 15-year EUL	Gunite pool surface, no direct observation possible during assessment
Spa Surface	1 ls		\$0	6	10			2015 resurface; future allowances for as-needed repairs and resurfacing	Gunite pool surface, no direct observation possible during assessment
Pool Cover	1 ea	4600.00	\$4,600	6	10	4 /14	in 1 Year	2015 resurface; future allowances included with pool costs above	Mesh safety pool cover with anchor attachment; installed in 2015
Boilers - Pool/Spa	2 ea	18000.00	\$36,000	13	25	12	in 1 Year	Future replacement cycles and costs based on 10-year EUL.	RayPak 399-MBH natural gas-fired boilers used to heat the pool water
Pool Mechanicals	1 ea	5000.00	\$5,000	varies	5	1 /6 /11 /16	in 1 Year	Installed in 2008; replacement shown after 25 years	Various pool mechanicals - Sand filters, separators, chlorinators, pumps.
									Periodic allowances for as-needed repairs and replacements.

# Projected Capital Needs Over Twenty Years

# Bay Square Condominium

Costs inflated at 3%

SITE SYSTEMS

Replacement Items	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040
<b>SURFACE</b>																				
Loading Dock Entry and Platform	\$0	\$0	\$0	\$0	\$11,025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,817	\$0	\$0	\$0	\$0	\$0
Loading Dock Walkway	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Concrete Walkways	\$0	\$0	\$5,158	\$0	\$0	\$0	\$0	\$5,980	\$0	\$0	\$0	\$0	\$6,932	\$0	\$0	\$0	\$0	\$8,036	\$0	\$0
Rear Courtyard Brick Platform	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Brick & Stone Planters	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fencing - PVC - Rear Courtyard	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,271	\$0	\$0	\$0	\$0
Fencing - PVC - Rear Courtyard	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fencing - PVC - Green Street	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,654	\$0	\$0	\$0	\$0	\$0	\$0
Fencing - Metal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,407	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pergola	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Site Lighting - Bollards	\$5,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Site Lighting - Pier Lights	\$1,100	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Site Distribution Systems	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>POOL AND SPA</b>																				
Pool Deck Caulk	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,745	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pool Surface	\$0	\$0	\$0	\$327,818	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$440,560	\$0	\$0	\$0	\$0	\$0
Spa Surface	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pool Cover	\$0	\$0	\$0	\$5,027	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,755	\$0	\$0	\$0	\$0	\$0
Boilers - Pool/Spa	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,832	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pool Mechanicals	\$5,000	\$0	\$0	\$0	\$0	\$5,796	\$0	\$0	\$0	\$0	\$6,720	\$0	\$0	\$0	\$7,790	\$0	\$0	\$0	\$0	\$0

# Bay Square Condominium

## MECHANICAL ROOM

Replacement Items	Quantity	Cost per unit in 2021 \$\$	Total Cost in 2021 \$\$	(Expected Useful life)		Replacement Schedule Year of action AND duration of project	Notes
				AGE (Years)	EUL (Years)		
<b>BOILERS</b>							
Boilers--Main	2 ea	162000.00	\$324,000	5	20	15	in 1 Year
Boilers--Mechainical Room	1 ea	32400.00	\$32,400	5	20	15	in 1 Year
Heat Exchanger	1 ea	47400.00	\$47,400	33	25	1	in 1 Year
Boiler Water Pumps	2 ea	7050.00	\$14,100	5	20	15	in 1 Year
Boiler Water Pumps	1 ea	5050.00	\$5,050	5	20	15	in 1 Year
	2 total		\$6,500	varies	15	1 8 16	in 1 Year
Service Loop Pumps	2 ea	12000.00	\$24,000	10	20	10	in 1 Year
Service Loop Pump VFD's	2 ea	11700.00	\$23,400	7	15	8	in 1 Year
	2 total						
Cooling Tower Loop Pumps	1 ea	12400.00	\$12,400	varies	15	1 /8 /16	in 1 Year
Cooling Tower	1 ea	215000.00	\$215,000	9	25	16	in 1 Year
Expansion Tanks	2 ea		\$0	5	25		
Flue Exhaust	1 ea		\$0	5	30+		
<b>BOILER ROOM SYSTEMS</b>							
Boiler Room Valves	1 ls		\$0	33	25		No observed or reported leaking or significant corrosion noted.
Boiler Room Piping	1 ls		\$0	33	25		Monitor and maintain from Operating.
Heat Exchanger for Bldg. Heat	ea						No observed or reported leaking or significant corrosion noted.
Domestic Hot Water Generation	2 ea	35000.00	\$70,000	5	20	15	in 1 Year
Domestic Hot Water Storage	ea						Intellihot IQ1001, natural gas fired, 1001-MBH
Domestic Hot Water Pumps	ea						Installed in 2016; replacement shown after 20 years
Domestic Hot Water Pumps	ea						
Boiler Room Piping Insulation	1 ls		\$0	33	25		Monitor and maintain from Operating
Fuel Oil Storage	1 ea		\$0	8	40		Above-ground generator diesel fuel tank located in parking garage
Fuel Oil Transfer System	1 ls		\$0	8	25		Installed in 2013; maintain throughout from Operating
							Dual pump fuel oil transfer system, delivers fuel to the 7th floor generator day tank, monitor and maintain from Operating.

# Projected Capital Needs Over Twenty Years

## Bay Square Condominium

Costs inflated at 3%

### MECHANICAL ROOM

Replacement Items	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040	
<b>BOILERS</b>																					
Boilers--Main	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$490,079	\$0	\$0	\$0	\$0	\$0	
Boilers--Mechanical Room	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,008	\$0	\$0	\$0	\$0	\$0	
Heat Exchanger	\$47,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Boiler Water Pumps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,328	\$0	\$0	\$0	\$0	\$0	
Boiler Water Pumps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,639	\$0	\$0	\$0	\$0	\$0	
Service Loop Pumps	\$6,500	\$0	\$0	\$0	\$0	\$0	\$0	\$7,994	\$0	\$31,315	\$0	\$0	\$0	\$0	\$0	\$10,127	\$0	\$0	\$0	\$0	
Service Loop Pump VFD's	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,779	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cooling Tower Loop Pumps	\$12,400	\$0	\$0	\$0	\$0	\$0	\$0	\$15,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,319	\$0	\$0	\$0	\$0	
Cooling Tower	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$334,963	\$0	\$0	\$0	\$0	
Expansion Tanks	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Flue Exhaust	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>BOILER ROOM SYSTEMS</b>																					
Boiler Room Valves	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Boiler Room Piping	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Heat Exchanger for Bldg. Heat	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Hot Water Generation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$105,881	\$0	\$0	\$0	\$0	
Domestic Hot Water Storage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Hot Water Pumps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Hot Water Pumps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Boiler Room Piping Insulation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Fuel Oil Storage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Fuel Oil Transfer System	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

# Bay Square Condominium

## BUILDING MECHANICAL AND ELECTRICAL

(Expected Useful life)

Replacement Items	Quantity	Cost per unit in 2021 \$\$	Total Cost in 2021 \$\$	AGE (Years)	EUL (Years)	Replacement Schedule Year of action AND duration of project	Notes
<b>BUILDING MECHANICAL</b>							
Trash Compactors	2 ea 1 ea	15000.00	\$15,000	varies 33	30	1 in 1 Year	Two 2-cubic yard rolling trash containers-maintain from Operating Shoot-fed, forward-feed, hydraulic dumpster
Building Fire Suppression - Wet	1 ls	9850.00	\$9,850	33	50	13 in 1 Year	Wet-pipe building fire suppression system with 75-hp fire pump, and 2-hp jockey pump. Fire pump and controller; Future overhaul
Wet Fire System Jockey Pump	1 ea	3500.00	\$3,500	33	25	1 in 1 Year	Grundfos 2-horsepower jockey pump; original Significant corrosion at flange and base; replace
Garage Fire Suppression - Dry	1 ea	2200.00	\$2,200	20	25	5 in 1 Year	Dry-pipe parking garage fire suppression system with galvanized steel piping and 3/4-hp Leeson compressor, future costs to replace compressor
Garage CO Detection	1 ls	8600.00	\$8,600	17	20	3 in 1 Year	ToxAlert parking garage CO detection system with 9 wall-mounted monitors Future costs to replace all monitors and upgrade panel based
Hallway Air Conditioning	2 ea	8100.00	\$16,200	16	20	4 in 1 Year	Carrier WeatherMaster, 4-ton, energy-efficient (13 SEER) single-package rooftop units serving hallways, no reported issues; replace
Common Space HVAC	4 ea	12500.00	\$50,000	6-11	20+	12 over 4 Years	Carrier ceiling-mounted water-source heat pumps at lobby, front desk, rear ground floor, fitness room. Varying ages, future gradual replacement
Stairwell Ventilation & Exhaust	3 ea	4000.00	\$12,000	33	30	1 in 1 Year	Large rooftop stairwell smoke ventilation fans Future replacement
<i>Average costs</i>							
Building/Unit Vent. & Exhaust	44 ea 4 ea	500.00 5250.00	\$22,000 \$21,000	Varies 4	20 15	1 /11 over 2 Years	Various rooftop centrifugal down-blast exhaust fans serving common area/ resident bathrooms, kitchens, laundry, trash chutes, replacement
Garage Ventilation & Exhaust	4 ea	3500.00	\$14,000	33	10	1 /11 over 2 Years	Large wall-mounted CO monitoring system controlled fans with VFD's 2 intake/2 exhaust - Periodic motor, belt, controls overhauling
Cold Water Booster Pumps	1 ea	14200.00	\$14,200	6	15	9 in 1 Year	SyncroFlo cold water booster system with two 5-hp pumps Newly installed in 2015; future costs to replace pumps and upgrade panel
Building Sanitary Waste & Vent.	1 ls	80000.00	\$80,000	Varies	75	1 over 20 Years	2016-Back up prevention valve installed; new sewer connection to city Annual allowances for on-going as-needed sectional interior repairs
Hot/Cold Water & Nat. Gas Distr.	1 ls	37600.00	\$37,600	33	40	7 in 1 Year	SyncroFlo cold water booster system with two 5-hp pumps No reported issues, full replacement after 40 years of use
<b>BUILDING ELECTRICAL</b>							
Building Power Wiring	1 ls	15000.00	\$15,000	33	99	1 /6 /11 /16 in 1 Year	GE switchgear, panels, sub-panels, and main disconnect. Allowances for periodic Infrared, Megger, DLRO, and injection testing and maintenance
Emergency Generator	1 ea	120000.00	\$120,000	33	35	2 in 1 Year	300 kW interior-mounted Caterpillar diesel-fired generator No reported problems. Replacement costs based on 35-year EUL
Smoke / Fire Detection	1 ls	135600.00	\$135,600	15	20	5 in 1 Year	Simplex 4100U addressable panel, command center, wireless transmitter, & elevator recall. Replacement includes peripherals after 20-years
Security	1 ls	3300.00	\$3,300	0	5	5 /10 /15 /20 /16 in 1 Year	All security cameras replaced with HD models; 11 interior and 11 exterior with recording devise and monitor at security desk; upgrade allowances
Communication	1 ls	11160.00	\$75,000 \$11,160	4? 0	20	20 in 1 Year	Building wide in-unit intercom system; future upgraded/ replacement Key fob at entry & garage vestibules installed in 2020; future replacement
<b>BUILDING ELEVATORS</b>							
Shafts and Doorways							North and south elevators with 25-hp overhead traction machines. New machines, cables, rollers, governors, in 2014; full-service maint. Contract
Split Systems Heat Pumps	2 ea	3500.00	\$7,000	7	15	8 in 1 Year	Split systems heat pumps for penthouses; replacement allowances
Cabs	2 ea	20000.00	\$40,000	7	15	8 in 1 Year	Wood-laminate panels, brass trim, carpet. New door operators in 2005 Costs to refurbish cab interior finishes and door operators
Controller/Dispatcher	2 ea		\$0	7	30+		Solid state controller/dispatchers with Magnetek HPV-900 AC drives-Monitor
Machine Room Equipment	2 ea	30000.00	\$60,000	7	15	8 in 1 Year	Newly installed in 2014, no reported issues; monitor Imperial 25-horsepower overhead traction machines
							Installed in 2014; future allowance to overhaul both machines

# Projected Capital Needs Over Twenty Years

# Bay Square Condominium

Costs inflated at 3%

## BUILDING MECHANICAL AND ELECTRICAL

Replacement Items	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040
<b>BUILDING MECHANICAL</b>																				
Trash Compactors	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Building Fire Suppression - Wet	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,044	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wet Fire System Jockey Pump	\$3,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Garage Fire Suppression - Dry	\$0	\$0	\$0	\$0	\$2,476	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Garage CO Detection	\$0	\$0	\$9,124	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Hallway Air Conditioning	\$0	\$0	\$0	\$17,702	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Common Space HVAC	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,303	\$17,822	\$18,357	\$18,907	\$0	\$0	\$0	\$0
Stairwell Ventilation & Exhaust	\$12,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Building/Unit Vent. & Exhaust	\$1,100	\$1,133	\$1,167	\$1,202	\$1,238	\$1,275	\$1,313	\$1,353	\$1,393	\$1,435	\$1,478	\$1,523	\$1,568	\$1,615	\$1,664	\$1,714	\$1,765	\$1,818	\$1,873	\$1,929
Garage Ventilation & Exhaust	\$7,000	\$7,210	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,519	\$24,224	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cold Water Booster Pumps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17,988	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Building Sanitary Waste & Vent.	\$4,000	\$4,120	\$4,244	\$4,371	\$4,502	\$4,637	\$4,776	\$4,919	\$5,067	\$5,219	\$5,376	\$5,537	\$5,703	\$5,874	\$6,050	\$6,232	\$6,419	\$6,611	\$6,810	\$7,014
Hot/Cold Water & Nat. Gas Distr.	\$0	\$0	\$0	\$0	\$0	\$0	\$44,896	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>BUILDING ELECTRICAL</b>																				
Building Power Wiring	\$15,000	\$0	\$0	\$0	\$0	\$17,389	\$0	\$0	\$0	\$0	\$20,159	\$0	\$0	\$0	\$0	\$23,370	\$0	\$0	\$0	\$0
Emergency Generator	\$0	\$123,600	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Smoke / Fire Detection	\$0	\$0	\$0	\$0	\$152,619	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Security	\$0	\$0	\$0	\$0	\$3,714	\$0	\$0	\$0	\$0	\$4,306	\$0	\$0	\$0	\$0	\$4,992	\$0	\$0	\$0	\$0	\$5,787
Communication	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$116,848	\$0	\$0	\$0	\$19,569
<b>BUILDING ELEVATORS</b>																				
Split Systems Heat Pumps	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,609	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cabs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,195	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Controller/Dispatcher	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Machine Room Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$73,792	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

# Bay Square Condominium

## BUILDING ARCHITECTURE

Replacement Items	Quantity	Cost per unit in 2021 \$\$	Total Cost in 2021 \$\$	AGE (Years)	EUL (Years)	(Expected Useful life)			Notes
						Replacement Schedule Year of action AND duration of project			
<b>STRUCTURE</b>									
Foundation	855 lf								Reinforced poured concrete building and garage foundation, steel and poured concrete framing. Allowances for structural review every five years
Structural Review	1 ls	10000.00	\$10,000	33	5	2 /7 /12 /17	in	1 Year	
		5.50	\$139,838			/12	in	1 Year	
Upper Garage	25,425 sf	6.25	\$158,906	14	10	2 /12	in	1 Year	Suspended acoustic tile ceiling; replace with second epoxy cycle
			\$161,938			/11	in	1 Year	Epoxy coated concrete surface installed in 2007; replace
Lower Garage Floor	25,910 sf	7.75	\$200,803	33	10	1	in	1 Year	Bare concrete floor, surface wear from salt and use, some recent rebuild of drains; cost to repair concrete where needed; Epoxy in Year 1
<b>BUILDING EXTERIOR</b>									
Aluminum/Glass Double Doors	1 ls		\$0	0	35				Aluminum-framed double-leaf front entrance and vestibule glass doors
	10 total								Door and surrounding glazing replaced in 2020 with insulated glass
Aluminum/Glass Single Doors	1 ea	4000.00	\$4,000	33	35	2	in	1 Year	Aluminum-framed single-leaf glass doors; lobby patio replaced in 2018
									Costs to replace fitness door, commercial units are owners responsibility
Garage Vestibule Doors	4 ea	4000.00	\$16,000	33	35	2	in	1 Year	Aluminum-framed single-leaf garage vestibule glass doors
	2 ea	3000.00	\$6,000	5	10	5 15	in	1 Year	Future replacement of doors only
Power Door Openers	2 ea	3000.00	\$6,000	8	10	2 /12	in	1 Year	Power door openers at parking garage elevator vestibules, 2 added in 2013 and 2 in 2016; future allowances for replacement after 10 years
									Flush-metal double-leaf service door at loading dock
Double-Leaf Service Doors	1 ea		\$0	<5	35				Appears to have been replaced; maintain from Operating
									Flush-metal single-leaf service/egress doors-loading dock, roof penthouses, Green St, and Bay St.; allowances for replacement
Single-Leaf Service Doors	11 ea	1250.00	\$13,750	33	35	2	over	4 Years	Unit balcony and terrace sliding glass doors
									Unit owner responsibility; no costs shown
Glass Sliding Doors	106 ea		\$0	varies	35				Segmented panel insulated fiberglass overhead garage doors
									Surface rust and damage observed; gradual replacement
Overhead Garage Doors	5 ea	3075.00	\$15,375	15	15	1 /16	over	5 Years	Garage overhead door wall-mounted power openers, varying ages
	5 total		\$1,250			/1 /4 /7	in	1 Year	Periodic allowances for replacement throughout the plan
Overhead Garage Door Openers	1 ea	1250.00	\$1,250	varies	3	10 /13 /16 /19	in	1 Year	Face-brick cladding at all elevations, minor step cracking observed
	56,800 total		\$50,000			1	in	1 Year	Year 1 costs for waterproofing in courtyard, Years 2 and 17 for repointing
Exterior Walls - Brick	5,680 sf	15.00	\$85,200	16	15	2 /17	in	1 Year	Visible efflorescence noted at various elevations
	56,800 total								Interim costs for power-washing to remove salts between repointing cycles
Exterior Walls - Efflorescence	17,040 sf	0.80	\$13,632	varies	5	7 /12	in	1 Year	Cast stone trim bands at 6th floor
									Review and as-needed repointing included with Exterior Walls
Trim, Soffit & Fascia	1,710 lf		\$0	33	5				Corner and control joint caulking - spot replaced last completed in 2005
									Costs for complete replacement concurrent with repointing efforts
Caulk	5,755 lf	12.00	\$69,060	varies	15	2 /17	in	1 Year	Fiberglass slider-type residence unit windows-unit owner responsibility
									Aluminum-framed, double-glazed, fixed window panels; replacement costs
Window Frames - Residences	363 ea								All Juliet balcony railings painted with RhinoShield ceramic coating in 2010
									Future re-painting costs based on 25-year warranty
Window Frames - Fixed Panel	1,080 sf	50.00	\$54,000	33	35	2	in	1 Year	Painted square metal railings, painted with standard metal primer & paint
									Painting included with roofing replacement, future needs from Operating
Juliet Balcony Railings	84 ea	2500.00	\$210,000	11	25	14	in	1 Year	Cast stone 7th Floor Mansard balcony capstones, one replaced
									No problems reported /observed with other, inspect with exterior work
Terrace & Mansard Balcony Railing	511 lf		\$0	varies	10				Mix of wall-mounted and recessed, HID and fluorescent fixtures at all elevations, annual allowance for as-needed replacements
	6 total								
Mansard Balcony Cap Stones	5 ea		\$0	28	25+				
		Average costs							
Building Mounted Lighting	35 ea	500.00	\$17,500	Varies	15	1 /16	over	15 Years	

# Projected Capital Needs Over Twenty Years

# Bay Square Condominium

Costs inflated at 3%

## BUILDING ARCHITECTURE

Replacement Items	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040
<b>STRUCTURE</b>																				
Structural Review	\$0	\$10,300	\$0	\$0	\$0	\$0	\$0	\$11,941	\$0	\$0	\$0	\$13,842	\$0	\$0	\$0	\$0	\$16,047	\$0	\$0	\$0
Upper Garage	\$0	\$163,673	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$413,531	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lower Garage Floor	\$200,803	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$217,630	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>BUILDING EXTERIOR</b>																				
Aluminum/Glass Double Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Aluminum/Glass Single Doors	\$0	\$4,120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Garage Vestibule Doors	\$0	\$16,480	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Power Door Openers	\$0	\$6,180	\$0	\$0	\$6,753	\$0	\$0	\$0	\$0	\$0	\$0	\$8,305	\$0	\$0	\$9,076	\$0	\$0	\$0	\$0	\$0
Double-Leaf Service Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Single-Leaf Service Doors	\$0	\$3,541	\$3,647	\$3,756	\$3,869	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Glass Sliding Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overhead Garage Doors	\$3,075	\$3,167	\$3,262	\$3,360	\$3,461	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,791	\$4,934	\$5,083	\$5,235	\$5,392
Overhead Garage Door Openers	\$1,250	\$0	\$0	\$1,366	\$0	\$0	\$1,493	\$0	\$0	\$1,631	\$0	\$0	\$1,782	\$0	\$0	\$1,947	\$0	\$0	\$2,128	\$0
Exterior Walls - Brick	\$50,000	\$87,756	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$136,721	\$0	\$0	\$0	\$0
Exterior Walls - Efflorescence	\$0	\$0	\$0	\$0	\$0	\$0	\$16,277	\$0	\$0	\$0	\$0	\$18,870	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Trim, Soffit & Fascia	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Caulk	\$0	\$71,132	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$110,821	\$0	\$0	\$0
Window Frames - Residences	\$0	\$55,620	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Window Frames - Fixed Panel	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Juliet Balcony Railings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$308,392	\$0	\$0	\$0	\$0	\$0
Terrace & Mansard Balcony Railings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Mansard Balcony Cap Stones	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Building Mounted Lighting	\$1,167	\$1,202	\$1,238	\$1,275	\$1,313	\$1,352	\$1,393	\$1,435	\$1,478	\$1,522	\$1,568	\$1,615	\$1,663	\$1,713	\$1,765	\$1,818	\$1,872	\$1,928	\$1,986	\$2,046

# Bay Square Condominium

## BUILDING ARCHITECTURE--continued

Replacement Items	Quantity	Cost per unit in 2021 \$\$	Total Cost in 2021 \$\$	(Expected Useful life)		Replacement Schedule Year of action AND duration of project	Notes
				AGE (Years)	EUL (Years)		
<b>ROOF SYSTEMS</b>							
Structure	18,926 ttl sf 1 ls	200000.00	\$200,000	33	50+	2 in 1 Year	Concrete structure; monitor Roof anchor project per Management and Board
Roof Covering - Main Structure	10,626 sf	32.00	\$340,032	12	20	8 in 1 Year	Adhered light/heat reflecting polyvinyl chloride (PVC) main structure roof Installed 2009, no reported or observed active leaks; future replacement
Roof Covering - Mansard Balconies	485 sf	80.00	\$38,800	12	20	8 in 1 Year	PVC membrane under the 7th-Floor Mansard balconies; costs to replace membrane and reuse existing pavers; cost from recent terrace in 2020
Roof Covering - Lower Roofs	2,375 sf	25.00	\$59,375	14	20	6 in 1 Year	Adhered light/heat reflecting polyvinyl chloride (PVC) membrane 2nd floor Installed 2007, no reported or observed active leaks; future replacement
Roof Covering-SW Private Terrace	2,050 sf	—	\$0	0	25	—	EPDM membrane replaced in 2020; retained/reused pavers 25 Year warranty; monitor roof in future; replacement not anticipated
Roof Covering - North/ Entrance	1,260 sf	80.00	\$100,800	16	20	1 in 1 Year	EPDM membranes under the front 6th-Floor private terrace, terraces at entrance planned for 2021; estimated pricing based on 2020
	250 sf	—	\$20,000	4	20	/16 in 1 Year	EPDM membranes @ garage entrance, and east 1st floor, South 2nd floor
Roof Covering - Various Terraces	2,130 sf	80.00	\$170,400	16	20	4 over 3 Years	6th floor SE (green), No reported or observed active leaks; future replace Fiber-cement faux-slate shingles over Mansard roof, no missing shingles noted from available view points; annual contract for inspection/repairs
Roof Covering - Mansard Roof	8,100 sf	—	\$0	33	40	—	Internal drains, no observed or reported issues noted Monitor, clean, and maintain from Operating
Roof Drainage	1 ls	—	\$0	33	20	—	Brick clad elevator machine room penthouses
Penthouses	2 ea	—	\$0	33	20	—	As-need repair/repoint included with Exterior Walls
Skylights	40 ea	—	\$0	6	30	—	Skylights at penthouse units and upper common hallways All replaced in 2015; monitor
<b>HALLS / GARAGE VESTIBULES</b>							
Hallway Walls	32,975 sf	1.00	\$32,975	2	15	13 in 1 Year	Painted drywall walls, last full paint cycle completed in 2019 Painting shown with carpet replacement; interim touchup from Operating
Hallway Ceilings	10,000 sf	1.00	\$10,000	2	15	13 in 1 Year	Painted drywall walls, last full paint cycle completed in 2019 Painting shown with carpet replacement; interim touchup from Operating
Hallway Floors - Carpet	10,000 sf	8.50	\$84,997	2	15	13 in 1 Year	Carpet on first floor installed in 2018; upper floors replaced in 2019 Future replacement costs based on previous pricing; replace after 15 years
Floor Covering - VCT	256 sf	5.50	\$1,408	33	15	1 /16 in 1 Year	Vinyl composition tiles (VCT) at garage elevator lobbies; replace
Hallway Interior Lighting	1 ls	50000.00	\$50,000	33	30+	2 in 1 Year	Frosted glass wall sconces with CFL bulbs Replacement / upgrades shown in Year 2 (2022) per Board
<b>STAIRS</b>							
Stair Walls and Ceilings	5,925 sf	—	\$0	varies	15	—	Painted drywall wall and ceiling surfaces No observed or reported problem, monitor and maintain from Operating
Stair Floors	1,300 sf	—	\$0	33	50+	—	Bare, unpainted concrete treads and landings No observed or reported problem, monitor and maintain from Operating
Hall / Stair Doors	1 ls	—	\$0	33	40+	—	Flush metal stairwell, service closet, and trach chute doors No observed or reported problem, monitor and maintain from Operating
Stair Railings	1 ls	—	\$0	33	50+	—	Painted steel stringers and railings No observed or reported problem, monitor and maintain from Operating

# Projected Capital Needs Over Twenty Years

# Bay Square Condominium

## BUILDING ARCHITECTURE--continued

Costs inflated at 3%

Replacement Items	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040	
<b>ROOF SYSTEMS</b>																					
Structure	\$0	\$206,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Roof Covering - Main Structure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$418,196	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Roof Covering - Mansard Balconies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$47,719	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Roof Covering - Lower Roofs	\$0	\$0	\$0	\$0	\$0	\$68,832	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Roof Covering-SW Private Terraces	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Roof Covering - North/ Entrance	\$100,800	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Roof Covering - Various Terraces	\$0	\$0	\$0	\$62,067	\$63,929	\$65,847	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$31,159	\$0	\$0	\$0	\$0	
Roof Covering - Mansard Roof	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Roof Drainage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Penthouses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Skylights	\$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	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Hallway Walls	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$47,014	\$0	\$0	\$0	\$0	\$0	\$0	
Hallway Ceilings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14,257	\$0	\$0	\$0	\$0	\$0	\$0	
Hallway Floors - Carpet	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$121,185	\$0	\$0	\$0	\$0	\$0	\$0	
Floor Covering - VCT	\$1,408	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,194	\$0	\$0	\$0	\$0	
Hallway Interior Lighting	\$0	\$51,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>STAIRS</b>																					
Stair Walls and Ceilings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Stair Floors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Hall / Stair Doors	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Stair Railings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

# Bay Square Condominium

## BUILDING ARCHITECTURE--continued

Replacement Items	Quantity	Cost per unit in 2021 \$\$	Total Cost in 2021 \$\$	AGE (Years)	EUL (Years)	Replacement Schedule		Notes
						Year of action AND duration of project	in 1 Year	
<b>LOBBIES/MAIL FACILITIES</b>								
Lobby Walls & Ceilings	5,525 sf	5.00	\$27,623	0	15	15	in 1 Year	Painted drywall wall and ceiling surfaces with fabric wall coverings Future allowance for upgrades and replacements.
Lobby Floors - Carpet	1385 sf	10.00	\$5,745	0	15	15	in 1 Year	Stone tile flooring, installed in 2001 - maintain from Operating Carpet installed in 2020; future replacement allowance
Mail Facilities	575 sf		\$0	33	45			Recessed aluminum mailbox cluster panels Generally good conditions; maintain from Operating
Furnishings & Artwork	113 ea		\$0	varies	15	15	in 1 Year	Lobby lounge furniture and wall art - Couches, chairs, tables. Future lobby redecorating after 15 years; timing and costs are discretionary
<b>FITNESS CENTER / KITCHENETTE</b>								
Walls and Ceilings	3,674 sf	1.00	\$3,674	2	10	8 /18	in 1 Year	Suspended acoustic tile in kitchen area; some staining observed-Optg. Painted drywall walls and ceilings; painted in 2019, future paint cycles
Floor Covering - Rolled Rubber	925 sf	8.50	\$7,858	17	15	1 /16	in 1 Year	Rolled rubber gym flooring Replacement based on assumed age and standard life assumptions
Floor Covering - VCT	75 sf	5.50	\$413	33	15	1 /16	in 1 Year	Vinyl composition tiles (VCT) at employee kitchenette; replace
Kitchenette Cabinetry/Appliances	1 ls		\$0	33	35			Compact kitchen unit with sink, two burners, and mini-fridge unit. Upper cabinet with rangehood. Minimal use; maintain from Operating Various commercial-grade resistance & cardio machines, free weights, TVs Varying ages/conditions, annual allowances for as-needed replacements
Exercise Equipment	1 ls	46000.00	\$46,000	Varies	10	1	over 20 Years	
<b>LIBRARY / MEETING ROOM</b>								
Walls and Ceilings	560 sf	1.00	\$560	20	15	2 /17	in 1 Year	Painted drywall walls and ceilings; paint allowances
Floor Covering	160 sf	8.50	\$1,360	20	15	2 /17	in 1 Year	Carpet; minimal use; allowance or replacement Table, chairs, racks, etc.
Furnishings	1 ls		\$0	20	20			Future as-needed replacements from Operating
<b>PUBLIC LAUNDRIES</b>								
Walls and Ceilings	1,900 sf	1.85	\$3,515	33	15	2 /17	in 1 Year	Painted ceilings with wallpaper walls Older finishes; refurbish allowance in Year 2
Floor Covering	360 sf	7.85	\$2,826	33	15	2 /17	in 1 Year	VCT floors. Age and use related wear, staining. Replacement cycles concurrent with kitchenette and garage lobbies
Laundry Equipment	1 ls		\$0	varies	20			Leased washers and dryers, assumes continuation
<b>LOCKER ROOMS</b>								
Walls and Ceilings	2,050 sf	1.00	\$2,050	2	10	8 /18	in 1 Year	Painted drywall walls and ceilings Painted in 2019; future paint cycles shown concurrent with hallways
Floor Covering	725 sf		\$0	3	20			New ceramic tile and vinyl plank flooring installed during 2018 rehab Maintain throughout the plan from Operating
Fixtures/Accessories	1 ls		\$0	3	20			All fixtures replaced, showers retiled, postformed sinks & wood lockers Maintain throughout the plan from Operating
Sauna Heating Elements	2 ea		\$0	3	15			Sauna heating element, one in each locker room No reported operating issues; maintain throughout from Operating

# Projected Capital Needs Over Twenty Years

## Bay Square Condominium

### BUILDING ARCHITECTURE--continued

Costs inflated at 3%

Replacement Items	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040	
<b>LOBBIES/MAIL FACILITIES</b>																					
Lobby Walls & Ceilings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41,782	\$0	\$0	\$0	\$0	\$0	
Lobby Floors - Carpet	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,690	\$0	\$0	\$0	\$0	\$0	
Mail Facilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Furnishings & Artwork	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$75,629	\$0	\$0	\$0	\$0	\$0	
<b>FITNESS CENTER / KITCHENETTE</b>																					
Walls and Ceilings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,518	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,072	\$0	\$0
Floor Covering - Rolled Rubber	\$7,858	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,243	\$0	\$0	\$0	\$0	
Floor Covering - VCT	\$413	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$643	\$0	\$0	\$0	\$0	\$0	
Kitchenette Cabinetry/Appliances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Exercise Equipment	\$2,300	\$2,369	\$2,440	\$2,513	\$2,589	\$2,666	\$2,746	\$2,829	\$2,914	\$3,001	\$3,091	\$3,184	\$3,279	\$3,378	\$3,479	\$3,583	\$3,691	\$3,802	\$3,916	\$4,033	
<b>LIBRARY / MEETING ROOM</b>																					
Walls and Ceilings	\$0	\$577	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$899	\$0	\$0	\$0	\$0	
Floor Covering	\$0	\$1,401	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,182	\$0	\$0	\$0	\$0	
Furnishings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>PUBLIC LAUNDRIES</b>																					
Walls and Ceilings	\$0	\$3,620	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,641	\$0	\$0	\$0	\$0	
Floor Covering	\$0	\$2,911	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,535	\$0	\$0	\$0	\$0	
Laundry Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>LOCKER ROOMS</b>																					
Walls and Ceilings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,521	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,388	\$0	\$0	
Floor Covering	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Fixtures/Accessories	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Sauna Heating Elements	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	

## **Appendix A: Statement of Delivery**

Our Capital Needs Assessment (the "CNA" or the "Report") on the subject property is delivered subject to the following terms and conditions:

1. The report and analysis may be relied upon by you as a description of the observed current conditions of the building and site improvements, only as of the date of this report, and with the knowledge that certain limitations and exceptions within the report that are the reflective of the scope of services as defined in our contract. Although care has been taken in the performance of this assessment, ON-SITE INSIGHT, Inc. (and/or its representatives) makes no representations regarding latent or concealed defects that may exist and no warranty or guarantee is expressed or implied. This report is made only in the best exercise of our ability and judgment. Conclusions reached in this report assume current and continuing responsible ownership and competent property management.
2. We have undertaken no formal evaluation of environmental concerns, including but not limited to asbestos containing materials (ACMs), lead-based paint, chlorofluorocarbons (CFCs), polychlorinated biphenyls (PCBs), and mildew/mold.
3. Conclusions in this report are based on estimates of the age and normal working life of various items of equipment and/or statistical comparisons. Actual conditions can alter the useful life of any item. When an item needs immediate replacement depends on many factors, including previous use/misuse, irregularity of servicing, faulty manufacture, unfavorable conditions, Acts of God and unforeseen circumstances. Certain components that may be working when we made our inspection might deteriorate or break in the future without notice.
4. To prepare this report, we used historic data on capital activities and costs, blueprints (when available), and current prices for capital actions. We have not independently verified this information, have assumed that it is reliable, but assume no responsibility for its accuracy.
5. Unless otherwise noted in the report, we assume that all building components meet code requirements in force when the property was built.
6. If accessibility issues are referenced in the report, the site elements, common areas, and dwelling units at the development were examined for compliance with the requirements of the Uniform Federal Accessibility Standards (UFAS), and for Massachusetts properties, the Massachusetts Architectural Accessibility Board (AAB). The methodology employed in undertaking this examination is adapted from a Technical Assistance Guide (TAG-88-11) titled "Supplemental Information About the Section 504 Transition Plan Requirements" published by the Coordination and Review section of the U.S. Department of Justice Civil Rights Division, and the AAB Rules and Regulations, 521 CMR effective July 10, 1987. The Guide also incorporates the requirements of UFAS, published April 1, 1988 by the General Services Administration, the Department of Defense, the Department of Housing and Urban Development, and the U.S. Postal Service. Changes in legislation and/or regulations may make some observations moot.
7. Response Actions and estimated costs of responses were developed by ON-SITE INSIGHT, Inc. If additional structural work is necessary, costs for some Response Actions may exceed estimates. Whenever the Response Action is to remove, reposition, or modify walls, a competent structural engineer should be retained before any work is done, because such investigation may disclose that a Response Action is either more costly than estimated, or is not possible.
8. Conclusions reached in this report assume current and continuing responsible ownership and competent property management. Any unauthorized reliance on or use of the report, including any of its information or conclusions, will be at the third party's sole risk. For the same reasons, no warranties or representation, express or implied in this report, are made to any such third party. Reliance on the report by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the contract Terms and Conditions. The limitation of liability defined in the Terms and Conditions is the aggregate limit of ON-SITE INSIGHT's liability to the client and all relying parties.
9. Regular updates of this plan are recommended to ensure careful monitoring of major building systems and to adjust the program to accommodate unanticipated circumstances surrounding the buildings, operations, and/or occupants.