

BOSTON HOUSING AUTHORITY
Proposed Annual Plan for Fiscal Year 2027
For State-Aided Public Housing

The Annual Plan is a document compiled by housing authority staff in advance of each new fiscal year. The plan serves as both a tool for the Local Housing Authority (LHA) to reflect upon the prior fiscal year, and as an opportunity to develop a clear and transparent plan that builds on successes, identifies needs, and corrects any issues that have arisen in prior years. Additionally, the Annual Plan is an important tool for tenants, who may use the document to better understand the operations and needs of their housing authority, advocate for changes to policies and procedures, access data about the housing authority, and participate in their housing authority's governance.

In addition to the physical document, the Annual Plan is also a process of public engagement. Throughout the Annual Plan process, the LHA executive director or their designee will be expected to review the Plan with any Local Tenant Organizations (LTO's) and Resident Advisory Board (RAB) before the LHA presents the plan to the LHA Board of Commissioners; make a draft available for review to all residents and the general public; post on the website and make a copy available to each LTO at least 30 business days before the public hearing; hold a hearing on the document; and collect, integrate, and report back on substantive comments. Additionally, the Board will read, offer recommendations, and approve the Annual Plan in advance of its submission to EOHLC.

The law that mandates the Annual Plan is [An Act Relative to Local Housing Authorities, Massachusetts General Laws, Chapter 121B Section 28A](#). The regulation that expands upon Section 28A is 760 CMR 4.16. The regulations that address Local Tenant Organization (LTO) and resident participation in the Annual Plan are 760 CMR 6.09 (3)(h) and 760 CMR 6.09(4)(a)(4).

The BOSTON HOUSING AUTHORITY's Annual Plan for their 2027 fiscal year includes the following components:

1. Overview and Certification
2. Capital Improvement Plan (CIP)
3. Maintenance and Repair Plan
4. Operating Budget
5. Narrative responses to Performance Management Review (PMR) findings
6. Policies
7. Waivers
8. Glossary
9. Other Elements, which may include:
 - a. Approval documents and any Public Comments
 - b. Tenant Satisfaction Survey
 - c. Performant Management Review report
 - d. Other documents added by LHA

State-Aided Public Housing Developments

The following table identifies the state-aided public housing units with developments of more than 8 units listed separately. Units in developments of 8 or fewer units are aggregated as noted. Units that the LHA provides to assist clients of the Department of Mental Health (DMH), the Department of Developmental Services (DDS), or other agencies are also aggregated separately.

Dev No	Type	Development Name	Num Bldgs	Year Built	Dwelling Units
705-03	Family	36 - 42 Harwood Street and 33 Winston Rd	5	1992	10
705-06	Family	Scattered Sites	61	1988	119
705-01	Family	23-25 Bowdoin St. / 81 E. Berkley	2	1930	13
667-03	Elderly	MONSIGNOR POWERS	1	1976	69
667-02	Elderly	FRANKLIN FIELD 667-2	7	1963	64
200-12	Family	SOUTH STREET	9	1953	132
667-01	Elderly	FRANKLIN FIELD 667-1	7	1963	40
200-01	Family	WEST BROADWAY	20	1949	485
200-04	Family	FANEUIL	10	1950	258
200-07	Family	ARCHDALE	6	1950	285
200-05	Family	FAIRMOUNT	37	1951	202
200-10	Family	GALLIVAN BLVD.	130	1953	251
	Elderly	Elderly Elderly units in smaller developments	1		5
	Other	Other Special Occupancy units	9		52
Total			305		1985

Massachusetts Rental Voucher Program (MRVP)

The Massachusetts Rental Voucher Program (MRVP) is a state-funded program that provides rental subsidies to low-income families and individuals. In most cases, a “mobile” voucher is issued to the household, which is valid for any market-rate housing unit that meets the standards of the state sanitary code and program rent limitations. In some cases, vouchers are “project-based” into a specific housing development; such vouchers remain at the development if the tenant decides to move out.

BOSTON HOUSING AUTHORITY manages 1009 MRVP vouchers.

Federally Assisted Developments

BOSTON HOUSING AUTHORITY also manages Federally-assisted public housing developments and/or federal rental subsidy vouchers serving 24185 households.

LHA Central Office

BOSTON HOUSING AUTHORITY
52 Chauncy Street Boston, MA 02111

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LHA Board of Commissioners**Role****Category****From****To**

Plan History

The following required actions have taken place on the dates indicated.

REQUIREMENT		DATE COMPLETED
A.	Advertise the public hearing on the LHA website.	10/22/2025
B.	Advertise the public hearing in public postings.	10/22/2025
C.	Notify all LTOs or RAB (if there is one) of the hearing and provide access to the Proposed Annual Plan.	10/22/2025
D.	Post draft AP for tenant and public viewing.	10/22/2025
E.	Hold quarterly meeting with LTO or RAB to review the draft AP. (Must occur before the LHA Board reviews the Annual Plan.)	11/13/2025
F.	Annual Plan Hearing. Hosted by the LHA Board, with a quorum of members present. (For Boston, the Administrator will host the hearing.)	12/8/2025
G.	Executive Director presents the Annual Plan to the Board.	1/8/2026
H.	Board votes to approve the AP. (For Boston Housing Authority, the Administrator approves and submits the AP.)	

This Annual Plan (AP) will be reviewed by the Executive Office of Housing and Livable Communities (EOHLC) following the public comment period, the public hearing, and LHA approval.

Capital Improvement Plan

EOHLC Description of CIPs:

The Capital Improvement Plan (CIP) is a five year plan which identifies capital projects, provides a planning scope, schedule and budget for each capital project and identifies options for financing and implementing the plan. The CIP identifies anticipated spending for each Department of Housing and Community Development (EOHLC) fiscal year (July 1 to June 30) based on the project schedules.

Local Housing Authorities (LHAs) receive yearly awards from EOHLC (Formula Funding Awards) which they target to their most urgent capital needs in their CIP. They may also receive special awards from EOHLC for specific projects which meet specific criteria. Special awards may be given for certain emergency, regulation compliance, energy and water conservation, and other projects. The first three years of the CIP are based on actual awards made to the LHA, while years four and five are based on estimated planning amounts, not actual awards.

LHAs may sometimes secure other sources of funding and assistance that you will note in their CIP, such as: Community Preservation Act (CPA) funding, Community Development Block Grant (CDBG) funding, Local Affordable Housing Trust Funds (AHTF), HOME grants, income from leasing a cell tower on their property, savings from net meter credit contracts with solar developers, utility rebates and contracted work from utility providers, and Sheriff's Department work crews. However, not all of these funding sources are available every year, or in all communities.

The CIP includes the following parts:

- A table of available funding sources and amounts
 - A list of planned capital projects showing spending per fiscal year
 - A table showing special awards and other funding for targeted projects, if any, which supplements Formula Funding awarded to the LHA
- A 'narrative' with a variety of additional information.

Capital Improvement Plan (CIP)

Aggregate Funding Available for Projects in the First Three Years of the CIP:

Category of Funds	Allocation	Planned Spending	Description
Balance of Formula Funding (FF)	\$17,364,645.59		Total of all FF awards minus prior FF spending
LHA Emergency Reserve	\$2,604,696.84		Amount to reserve for emergencies
Net FF Funds (First 3 Years of the CIP)	\$14,759,948.75	\$11,624,034.06	Funds to plan & amount actually planned in the first 3 years of the CIP
ADA Set-aside	\$101,867.84	\$102,200.00	Accessibility projects
DMH Set-aside	\$49,415.91	\$48,800.00	Dept. of Mental Health facility
DDS Set-aside	\$19,094.50	\$19,330.00	Dept. of Developmental Services facility
Unrestricted Formula Funding (FF)	\$14,589,570.50	\$11,453,704.06	Funds awarded by DHCD to be used on projects selected by the LHA and approved by DHCD.
Special DHCD Funding	\$59,196,043.13	\$59,010,443.13	Targeted awards from DHCD
Community Development Block Grant (CDBG) Funds	\$0.00	\$0.00	Federal funds awarded by a city or town for specific projects.
Community Preservation Act (CPA) Funds	\$651,710.00	\$651,710.00	Community Preservation Act funds awarded by a city of town for specific projects.
Operating Reserve(OR) Funds	\$2,303,556.40	\$2,303,556.40	Funds from the LHA's operating budget.
Other Funds	\$16,327,499.72	\$16,327,499.72	Funds other than those in the above categories. See explanation below.
Total funds and planned spending	\$93,238,758.00	\$89,917,243.31	Total of all anticipated funding available for planned projects and the total of planned spending.

Capital Improvement Plan (CIP)

CIP Definitions:

ADA Set-aside is funding allocated within the Formula Funding (FF) for use on projects that improve accessibility for people with disabilities. 10% of FF awards are designated for this purpose.

Available State Bond Funding is the amount of State Bond Funding available to the LHA for the first three years of the CIP. It is calculated by totaling all of FF and Special Awards granted to the LHA through the end of the third year of the plan and subtracting the amount of these funds spent prior to July 1 of the first year of the plan.

Amount spent prior to the plan is the total amount of Formula Funding (FF) and Special Awards spent prior to July 1 of the first year of the plan.

Capital project is a project that adds significant value to an asset or replaces building systems or components. Project cost must be greater than \$1000.

CDBG stands for Community Development Block Grant, a potential source of project funds.

CPA stands for Community Preservation Act, a potential source of project funds.

CapHub Project Number is the number given to projects entered into DHCD's project management system known as CapHub.

DMH Set-aside is funding allocated within the Formula Funding (FF) for use on facilities leased to the Department of Mental Health (DMH) program vendors, if any exist at this LHA.

DDS Set-aside is funding allocated within the Formula Funding (FF) for use on facilities leased to the Department of Developmental Services (DDS) program vendors, if any exist at this LHA.

Formula Funding (FF) is an allocation of state bond funds to each LHA according to the condition (needs) of its portfolio in comparison to the entire state-aided public housing portfolio.

Operating Reserve is an account, funded from the LHA operating budget, primarily used for unexpected operating costs, including certain extraordinary maintenance or capital projects.

Other Funds could include other funding by the city or town or from other sources.

Special Awards are DHCD awards targeted to specific projects. Award programs include funds for emergencies beyond what an LHA can fund, for complying with regulatory requirements, for projects that will save water or energy use, and various other programs the department may run from time to time.

Total Cost is the sum of investigation, design, administration, permitting, and construction costs for a project

Unrestricted Formula Funding (FF) is money awarded to the LHA by DHCD under the Formula Funding program other than amounts set aside (restricted) for accessibility improvements or for facilities operated by DMH or DDS.

Capital Improvement Plan (CIP)

Formula Funding and Special DHCD Award Planned Spending - Other funding not included

Cap Hub Project Number	Project Name	Development(s)	Total Cost	Amount Spent Prior to Plan	Remaining Planned for 2025	fy2026 Planned	fy2027	fy2028	fy2029	fy2030
035365	FF: building envelope - 49 Tremont St. Charlestown	Scattered Sites 705-06	\$352,145	\$317,832	\$0	\$0	\$0	\$0	\$0	\$0
035411	Auth-Wide: Stair Hall Improvements (Phase I) BHA#1259-01	SOUTH STREET 200-12	\$614,700	\$0	\$0	\$0	\$23,400	\$464,062	\$127,239	\$0
035424	FF: SUST-CSI 2019: Building Envelope and Mechanicals - Msgr Powers Phase I	MONSIGNOR POWERS\ MONSIGNOR POWERS	\$6,966,064	\$4,115,815	\$0	\$15,299	\$0	\$0	\$0	\$0
035427	FF: Authority Wide New Building Envelope BHA 1562-01	Scattered Sites 705-06	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035429	Auth-Wide: Roof Replacement (Phase I) BHA#1473-01	Multiple Developments	\$1,200,000	\$0	\$0	\$0	\$49,875	\$837,344	\$312,782	\$0
035430	Domestic Hot Water Upgrades - 2019/20 - Faneuil	FANEUIL 200-04	\$874,188	\$698,160	\$0	\$125,121	\$0	\$0	\$0	\$0
035432	Security and Public Safety - Cameras	FANEUIL 200-04	\$879,665	\$709,006	\$0	\$35,500	\$0	\$0	\$0	\$0

Capital Improvement Plan (CIP)

Formula Funding and Special DHCD Award Planned Spending - Other funding not included

Cap Hub Project Number	Project Name	Development(s)	Total Cost	Amount Spent Prior to Plan	Remaining Planned for 2025	fy2026 Planned	fy2027	fy2028	fy2029	fy2030
035450	Authority Wide Comprehensive Stair Hall Survey	GALLIVAN BLVD. 200-10	\$129,755	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035451	Authority Wide Comprehensive Mechanical Systems Survey	GALLIVAN BLVD. 200-10	\$222,285	\$18,928	\$0	\$0	\$0	\$0	\$0	\$0
035454	Authority Wide Comprehensive Site Survey	GALLIVAN BLVD. 200-10	\$60,000	\$0	\$0	\$0	\$0	\$39,000	\$21,000	\$0
035463	Building Envelope Restoration at 21 Maryland Street	Scattered Sites 705-06	\$234,908	\$131,711	\$0	\$14,375	\$0	\$0	\$0	\$0
035470	SUST-CSI 2019: Msgr Powers Phase II - HVAC, and associated work	MONSIGNOR POWERS 667-03	\$10,801,319	\$3,995,463	\$0	\$1,167,847	\$0	\$0	\$0	\$0
035480	Site beautification (Private grant)	FRANKLIN FIELD 667-1	\$695,620	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035483	BHA Project #2055-01; 62 Clifton St. & 10 Batchelder Envelope Renovations	CLIFTON & BATCHELDER STREETS 689-06	\$1,167,924	\$347,720	\$0	\$9,800	\$0	\$0	\$0	\$0

Capital Improvement Plan (CIP)

Formula Funding and Special DHCD Award Planned Spending - Other funding not included

Cap Hub Project Number	Project Name	Development(s)	Total Cost	Amount Spent Prior to Plan	Remaining Planned for 2025	fy2026 Planned	fy2027	fy2028	fy2029	fy2030
035484	ARPA FF: BHA Project #2048-01_02-Envelope Renovations 33 Winston St.	Harwood Street and Winston Rd 705-03	\$452,268	\$82,007	\$0	\$2,340	\$0	\$0	\$0	\$0
035485	ARPA FF: BHA Project #2047-01_02-Envelope Renovations Blu Hill Development	Scattered Sites 705-06	\$1,075,393	\$126,194	\$0	\$6,600	\$0	\$0	\$0	\$0
035486	ARPA Targeted: Boston Fire Alarm Upgrade -BHA Project #2065-02	WINSTON ROAD 167-02	\$3,531,293	\$0	\$0	\$1,868,470	\$0	\$0	\$0	\$0
035487	ARPA Targeted: Boston Fed Pac Panel Upgrade -BHA Project #2067-02	Scattered Sites 705-06	\$610,344	\$0	\$0	\$0	\$584,094	\$0	\$0	\$0
035498	ARPA FF: Site Utilities Drainage	FAIRMOUNT 200-05	\$258,893	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035499	ARPA FF: ECM Control Replacement	ARCHDALE 200-07	\$818,289	\$0	\$0	\$463,152	\$0	\$0	\$0	\$0
035503	BHA Project #2094-01_02 UST Stabilization(2) 15,000 Tanks / AST Installation	FANEUIL 200-04	\$656,124	\$79,681	\$0	\$470,749	\$0	\$0	\$0	\$0

Capital Improvement Plan (CIP)

Formula Funding and Special DHCD Award Planned Spending - Other funding not included

Cap Hub Project Number	Project Name	Development(s)	Total Cost	Amount Spent Prior to Plan	Remaining Planned for 2025	fy2026 Planned	fy2027	fy2028	fy2029	fy2030
035505	BHA Project #1947-02 - Envelope Improvement TA Only - No FF	SOUTH STREET 200-12	\$409,205	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035506	ARPA FF + FF: BHA Project #2091-02 Urgent Roofing Repairs at South Street	SOUTH STREET 200-12	\$1,701,243	\$1,569	\$0	\$81,104	\$0	\$0	\$0	\$0
035508	"BHA Project #2092-01_Investigative Site Development Study - Tremont	Torrey Street 689-05	\$1,083,957	\$50,778	\$0	\$0	\$0	\$0	\$0	\$0
035509	BHA Project #2093-01_Investigative Site Development Study - Wentworth & Torrey	Tremont Street - Dorchester 689-08	\$104,117	\$40,040	\$0	\$0	\$41,234	\$2,843	\$0	\$0
035510	BHA Project # 2068-02 Envelope	Scattered Sites 705-06	\$158,450	\$0	\$0	\$0	\$152,700	\$5,750	\$0	\$0
035513	BHA Project # 2097-02_ Wire Access Points at 4 State Sites - Phase I	GALLIVAN BLVD. 200-10	\$322,983	\$0	\$0	\$0	\$212,993	\$0	\$0	\$0

Capital Improvement Plan (CIP)

Formula Funding and Special DHCD Award Planned Spending - Other funding not included

Cap Hub Project Number	Project Name	Development(s)	Total Cost	Amount Spent Prior to Plan	Remaining Planned for 2025	fy2026 Planned	fy2027	fy2028	fy2029	fy2030
035514	BHA #2108-01_02: Standby Emergency Generator System	MONSIGNOR POWERS 667-03	\$399,431	\$75,272	\$0	\$0	\$246,127	\$0	\$0	\$0
035515	BHA Project #2172-02 BWSC Emergency Underground Water Main Repairs	GALLIVAN BLVD. 200-10	\$2,100	\$0	\$0	\$0	\$2,100	\$0	\$0	\$0
035516	2138-02 ACM Abatement on Existing Pipe Insulation	West Broadway 200-1	\$73,799	\$0	\$0	\$35,714	\$0	\$0	\$0	\$0
035517	BHA Project #2171-01 Drone Aerial Imaging	SOUTH STREET 200-12	\$4,565	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035519	BHA 2222-02 Stove Replacement with Induction Stoves	FRANKLIN FIELD 667-1	\$435,675	\$0	\$0	\$0	\$62,107	\$15,569	\$0	\$0
035521	DMH Tree Trimming - Authority Wide	WINSTON ROAD 167-02	\$53,389	\$0	\$0	\$0	\$53,389	\$0	\$0	\$0
035522	2193-01 Ramp Replacement	Scattered Sites 705-06	\$72,124	\$0	\$0	\$9,857	\$62,268	\$0	\$0	\$0

Capital Improvement Plan (CIP)

Formula Funding and Special DHCD Award Planned Spending - Other funding not included

Cap Hub Project Number	Project Name	Development(s)	Total Cost	Amount Spent Prior to Plan	Remaining Planned for 2025	fy2026 Planned	fy2027	fy2028	fy2029	fy2030
035523	BHA Project # 2285-01 Resiliency Feasibility Study at West Broadway	WEST BROADWAY 200-01	\$23,000	\$0	\$0	\$23,000	\$0	\$0	\$0	\$0
035524	BHA Project # 2282-01 02 25A Energy Pilot	FRANKLIN FIELD 667-1	\$3,168,688	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035525	BHA Project No. 2321-01_02 Archdale Parkland Playground	ARCHDALE 200-07	\$1,131,038	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035526	BHA Project # 2338-01 02 SUST Gas Stove Electrification -Archdale	ARCHDALE 200-07	\$2,789,164	\$0	\$0	\$0	\$308,203	\$2,480,962	\$0	\$0
035528	2050-11 Transformer Replacement Phase II	WEST BROADWAY 200-01	\$711,350	\$0	\$0	\$76,547	\$616,179	\$0	\$0	\$0
035529	2099-11 Load Center Upgrades	GALLIVAN BLVD. 200-10	\$1,641,750	\$0	\$0	\$0	\$46,658	\$1,497,747	\$97,346	\$0
035530	2051-11 Vault Transformer Replacement	SOUTH STREET 200-12	\$1,541,720	\$0	\$0	\$0	\$171,143	\$1,377,658	\$0	\$0
035531	2087-11 Standby Emergency Generator System	MONSIGNOR POWERS 667-03	\$429,380	\$0	\$0	\$40,725	\$353,176	\$0	\$0	\$0

Capital Improvement Plan (CIP)

Formula Funding and Special DHCD Award Planned Spending - Other funding not included

Cap Hub Project Number	Project Name	Development(s)	Total Cost	Amount Spent Prior to Plan	Remaining Planned for 2025	fy2026 Planned	fy2027	fy2028	fy2029	fy2030
035532	1854-11 Building Envelope Restoration at 21 Maryland Street	Scattered Sites 705-06	\$1,435,019	\$0	\$0	\$0	\$43,845	\$1,305,852	\$82,822	\$0
035533	Building Site Utility Upgrades	FRANKLIN FIELD 667-1	\$3,419,833	\$0	\$0	\$0	\$0	\$1,862,495	\$290,194	\$0
•	BHA Prj #2342-01 02 Site Beautification Phase II (Private grant - no FF)	FRANKLIN FIELD 667-1	\$651,710	\$0	\$0	\$0	\$0	\$0	\$0	\$0
•	BHA Project #0000-01 Deck Ramp & Stair Replacement	Tremont Street - Dorchester 689-08	\$138,134	\$0	\$0	\$0	\$138,134	\$0	\$0	\$0

Capital Improvement Plan (CIP)

FUNDS IN ADDITION TO ANNUAL FORMULA FUNDING AWARD

Cap Hub Project Number	Project Name	DHCD Special Award Comment	Special DHCD Awards				Other Funding			
			Emergency Reserve	Compliance Reserve	Sustain-ability	Special Awards	CDBG	CPA	Operating Reserve	Other Funds
035400	Orient Heights Phase II	Orient Heights Phase II Redevelopment	\$0	\$0	\$0	\$16,500,000	\$0	\$0	\$0	\$5,351,330
035424	FF: SUST-CSI 2019: Building Envelope and Mechanicals - Msgr Powers Phase I	Variable refrigerant flow system, hotw system, roof and insulation	\$0	\$0	\$208,500	\$0	\$0	\$0	\$0	\$2,823,649
035432	Security and Public Safety - Cameras		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$103,806
035457	Orient Heights Phase III	HILLAP Orient Heights Phase 3	\$0	\$0	\$0	\$17,450,000	\$0	\$0	\$0	\$4,000,000
035470	SUST-CSI 2019: Msgr Powers Phase II - HVAC, and associated work	CSI- Phase 2	\$803,953	\$0	\$541,500	\$0	\$0	\$0	\$803,953	\$4,168,481
035480	Site beautification (Private grant)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$695,620
035484	ARPA FF: BHA Project	ARPA Formula Funding	\$0	\$0	\$0	\$224,670	\$0	\$0	\$0	\$0
	#2048-01_02-Envelope Renovations 33 Winston St.									

Capital Improvement Plan (CIP)

FUNDS IN ADDITION TO ANNUAL FORMULA FUNDING AWARD

Cap Hub Project Number	Project Name	DHCD Special Award Comment	Special DHCD Awards				Other Funding			
			Emergency Reserve	Compliance Reserve	Sustain-ability	Special Awards	CDBG	CPA	Operating Reserve	Other Funds
035485	ARPA FF: BHA Project #2047-01_02-Envelope Renovations Blu Hill Development	ARPA Formula Funding	\$0	\$0	\$0	\$789,053	\$0	\$0	\$0	\$0
035486	ARPA Targeted: Boston Fire Alarm Upgrade -BHA Project #2065-02	035486 - ARPA Targeted: Boston Fire Alarm Upgrade -BHA Project #2065-02	\$1,454,441	\$0	\$0	\$2,076,852	\$0	\$0	\$0	\$0
035487	ARPA Targeted: Boston Fed Pac Panel Upgrade -BHA Project #2067-02	ARPA Targeted	\$610,344	\$0	\$0	\$0	\$0	\$0	\$0	\$0
035496	ARPA FF: Transformer Replacement	ARPA Formula Funding	\$0	\$0	\$0	\$5,457	\$0	\$0	\$0	\$0
035497	ARPA FF: Temporary Structural Stair Rp	ARPA Formula Funding	\$0	\$0	\$0	\$9,500	\$0	\$0	\$0	\$0
035498	ARPA FF: Site Utilities Drainage	ARPA Formula Funding	\$0	\$0	\$0	\$56,778	\$0	\$0	\$0	\$0
035499	ARPA FF: ECM Control Replacement	ARPA Formula Funding	\$0	\$0	\$0	\$518,650	\$0	\$0	\$0	\$0

Capital Improvement Plan (CIP)

FUNDS IN ADDITION TO ANNUAL FORMULA FUNDING AWARD

Cap Hub Project Number	Project Name	DHCD Special Award Comment	Special DHCD Awards				Other Funding			
			Emergency Reserve	Compliance Reserve	Sustain-ability	Special Awards	CDBG	CPA	Operating Reserve	Other Funds
035501	ARPA FF: Vault Transformer Replacement	ARPA Formula Funding	\$0	\$0	\$0	\$9,249	\$0	\$0	\$0	\$0
035505	BHA Project #1947-02 - Envelope Improvement TA Only - No FF		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$412,205
035506	ARPA FF + FF: BHA Project #2091-02 Urgent Roofing Repairs at South Street	ARPA Formula Funding	\$0	\$0	\$0	\$1,616,194	\$0	\$0	\$0	\$0
035511	BHA Project # 2087-02-Heating & DHW Retrofit TA Only - FF Admin only		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$127,198
035513	BHA Project # 2097-02_ Wire Access Points at 4 State Sites - Phase I		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000
035516	2138-02 ACM Abatement on Existing Pipe Insulation	asbestos removal pipe insulation	\$0	\$29,766	\$0	\$0	\$0	\$0	\$0	\$0

Capital Improvement Plan (CIP)

FUNDS IN ADDITION TO ANNUAL FORMULA FUNDING AWARD

Cap Hub Project Number	Project Name	DHCD Special Award Comment	Special DHCD Awards				Other Funding			
			Emergency Reserve	Compliance Reserve	Sustain- ability	Special Awards	CDBG	CPA	Operating Reserve	Other Funds
035519	BHA 2222-02 Stove Replacement with Induction Stoves		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$358,000
035523	BHA Project # 2285-01 Resiliency Feasibility Study at West Broadway	Resiliency Feasibility Study	\$0	\$0	\$23,000	\$0	\$0	\$0	\$0	\$0
035524	BHA Project # 2282-01 02 25A Energy Pilot		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,168,688
035525	BHA Project No. 2321-01_02 Archdale Parkland Playground		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,118,368
035526	BHA Project # 2338-01 02 SUST Gas Stove Electrification -Archdale	035526 Award for Targeted Gas Stove Electrification at 200-07 Boston	\$0	\$0	\$2,789,164	\$0	\$0	\$0	\$0	\$0
035533	Building Site Utility Upgrades BHA Prj #2342-01 02 Site Beautification Phase II (Private grant - no FF)		\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$0
			\$0	\$0	\$0	\$0	\$0	\$651,710	\$0	\$0

Capital Improvement Plan (CIP) Narrative**Including Requests to DHCD & Supporting Statements****1. Request for increased spending flexibility.**

DHCD designates a spending target (cap share) and an allowable spending range for each year of the CIP. A Housing Authority may request to shift the cap shares of the first three years in order to increase scheduling flexibility. A CIP utilizing this flexibility is called an Alternate CIP. The total spending over three years and over five years must continue to meet the limits set by DHCD. DHCD will approve an Alternate CIP only with acceptable justification and only if funding is available.

Boston Housing Authority has submitted an Alternate CIP with the following justification:

- Projected spending on projects currently in bidding or construction exceeds Cap Share in one or more years of the CIP.
- The TDC for a proposed project exceeds the Cap Share for a single year and it doesn't make sense to spread it
- We have urgent projects that require excess spending in year 1 or 2.

The BHA plans its Capital Improvement Projects to align with the allocated funds (benchmarks) for each fiscal year. Given the anticipated costs of several BHA projects, meeting these goals within this CIP Planning Program is challenging. In Year 2, it was often not possible to rearrange projects to satisfy the benchmarks, so selecting an "Alternate" plan allows BHA to avoid further project adjustments. This approach will also allow the BHA to meet its 3-year and 5-year benchmarks, so that its overall financial targets will be reached.

2. Request for additional funding.

A Housing Authority may request additional funding from DHCD for projects that qualify as emergencies, required legal compliance upgrades, or sustainability improvements.

Boston Housing Authority has not requested additional funding.

3. Overall goals of the Housing Authority's CIP

BHA's CIP is to support and advance housing that fosters resilient and thriving communities, offering a comprehensive array of affordable housing options and opportunities for all residents. Our mission is to promote equity, focusing particularly on households with the lowest incomes, underserved protected classes, and individuals with special needs, while providing housing and supportive services to all members of BHA's diverse and inclusive communities. The key objective is to maintain and expand the supply of truly affordable housing units within the State Portfolio, to provide homes for low- and moderate-income households of Boston. Projects that preserve and enhance residents' quality of life will be prioritized.

4. Changes from the Housing Authority's previous CIP

Every new CIP differs from the previous CIP because projects have been completed and a new year has been added with new projects. These changes and other significant changes to the content of the CIP are highlighted below:

There are no significant changes from the previous year's CIP aside from adding new projects through CIP revisions on a rolling basis throughout the course of the last year.

5. Requirements of previous CIP approval

We had projects where the designer retired mid-way through the project, and BHA needed to restart the projects under new project numbers. EOHLC asked for additional information about these projects.

6. Quarterly capital reports

Our most recent quarterly capital report (form 80 and 90) was submitted on 10/31/2025.

7. Capital Planning System (CPS) updates

Boston Housing Authority has not completed CPS updates. Our plan going forward is as follows:

Some projects have been fully archived.

8. Project priorities

All the projects in our CIP are high priority (Priority 1 and 2 projects).

9. High priority deficiencies

We have not been able to include all of our high priority (CPS priority 1 and 2) projects in our CIP:

We have included every high-priority project that our current funding has allowed.

10. Accessibility

We have identified the following accessibility deficiencies in our portfolio:

The BHA is aware of its accessibility deficiencies and has incorporated ADA-compliant projects into our CIP to expand accessibility.

We have incorporated the following projects in our CIP to address accessibility deficiencies: BHA's accessibility initiative includes the installation of new handicap ramps at 2000 Columbus and 1094 Tremont Street, providing safer and more convenient access for residents and visitors with disabilities. In addition to these improvements, further projects are being planned for the Fairmount Development to expand accessible routes and entrances, ensuring that all individuals can navigate the property with ease. As part of this effort, interior spaces within the management office will also be upgraded to meet ADA standards, and additional ramps will be constructed at other key locations throughout the development to further support inclusive access for all.

11. Special needs development

Boston Housing Authority has one or more special needs (167 or 689 programs) development. We have completed the service provider input process according to the required procedures detailed in the lease agreement and held an annual meeting with the service provider staff at all special needs developments as of 05/20/2025.

12. Energy and water consumption

Our 12 most recent monthly energy reports are for months 9/2004 to 8/2005.

The following table lists the DHCD thresholds for Per Unit Monthly (PUM) expense for electricity, natural gas, oil, and water use and the developments at the Housing Authority that have expenses in excess of the thresholds, if any.

	Electric PUM > Threshold	Gas PUM > Threshold	Oil PUM > Threshold	Water PUM > Threshold
Threshold PUM:	\$100	\$80	\$50	\$60

No developments exceed threshold values.

Some BHA developments do exceed PUM threshold values

Due to the size of BHA inventory, the method of reporting energy usage cannot be submitted or updated using the existing PUM table format. Please refer to the modified "PUM Energy Usage Table" found after the Executive Office of Housing and Livable Communities (EOHLC) PMR Physical Condition Report.

13. Energy or water saving initiatives

Boston Housing Authority is currently pursuing energy or water-saving audits or grants as noted in the Annual Plan. The BHA conducts ongoing energy and water use audits and is currently implementing energy and water conservation projects at Franklin Field under the "Low Income Multifamily Program". Upgrades include weatherization, new windows, boiler replacements, and water-saving fixtures in affecting 104 units to save 7,509 therms of natural gas and \$15,000 annually, lowering costs and improving resident

14. Vacancy rate

Our unadjusted vacancy rate reported to DHCD is as follows. (The unadjusted vacancy rate captured in these figures is the percentage of ALL housing units that are vacant, including both offline units being used for other purposes and units with DHCD vacancy waivers.)

3% c. 667 (DHCD Goal 2%)

3% c. 200 (DHCD Goal 2%)

19% c. 705 (DHCD Goal 2%)

Boston Housing Authority will address the excess vacancies in the following manner:

At the c.667 and c.200 communities: Some vacancies were due to building envelope issues that have been corrected as of September 30, 2025. Occupancy is expected to rise in the coming months.

At the c.705 communities: BHA is engaging in a plan to create homeownership opportunities with certain scattered site condo units, and we have been leaving units deliberately vacant to advance this initiative.

Maintenance and Repair Plan

Maintenance Objective

The goal of good property maintenance at a public housing authority is to serve the residents by assuring that the homes in which they live are decent, safe, and sanitary.

About This Maintenance and Repair Plan

This Maintenance & Repair Plan consists of several subsections describing maintenance systems followed by charts showing typical preventive maintenance, routine maintenance, and unit inspection tasks and schedules. These subsections are:

- a. **Classification and Prioritization of Maintenance Tasks** - Defines and prioritizes types of work to be accomplished by maintenance staff and vendors. Explains how the housing authority is expected to respond to work orders (tasks or requests) based on the work order classification.
- b. **Emergency Response System** - Defines what constitutes an emergency and how to notify staff of an emergency.
- c. **Normal Maintenance Response System** - How to contact the maintenance staff for a non-emergency request.
- d. **Work Order Management** - Description of the housing authority's system for managing work orders (tasks and requests).
- e. **Maintenance Plan Narrative & Policy Statement** - Self-assessment, basic information, and goals for the coming year, along with a description of the housing authority's maintenance program.
- f. **Preventive Maintenance Schedule** - A listing and schedule of tasks designed to keep systems and equipment operating properly, to extend the life these systems and equipment, and to avoid unexpected breakdowns.
- g. **Routine Maintenance Schedule** - A listing and schedule of ordinary maintenance tasks such as mopping, mowing, raking, and trash collection required to keep the facilities in good condition.
- h. **Unit Inspections** - Scheduling of annual unit inspections.

Classification and Prioritization of Maintenance Tasks

Maintenance items are tracked as “work orders” and are classified in the following categories. They are prioritized in the order listed. The following classifications and prioritization are required by the Executive Office of Housing and Livable Communities (EOHLC).

- I. **Emergencies** - Emergencies are only those conditions which are **immediately threatening** to the life or safety of our residents, staff, or structures.
 - Goal: initiated with 24 to 48 hours.
- II. **Vacancy Refurbishment - Work necessary to make empty units ready for new tenants.**
 - After emergencies, the refurbishment of vacancies for immediate re-occupancy has the highest priority for staff assignments. **Everyday a unit is vacant is a day of lost rent.**
 - **Goal: vacancy work orders are completed within 30 calendar days or if not completed within that timeframe, LHA has a waiver.**
- III. **Preventive Maintenance** - Work which must be done to **preserve and extend the useful life** of various elements of your physical property and avoid emergency situations.
 - A thorough Preventive Maintenance Program and Schedule that deals with all elements of the physical property is provided later in the document.
 - The Preventive Maintenance Program is reviewed and updated annually and as new systems and facilities are installed.
- IV. **Programmed Maintenance** - Work which is important and is completed to the greatest extent possible within time and budget constraints. Programmed maintenance is grouped and scheduled to make its completion as efficient as possible. Sources of programmed maintenance include:
 - Routine Work includes those tasks that need to be done on a regular basis to keep our physical property in good shape. (Mopping, Mowing, Raking, Trash, etc.)
 - Inspections are the other source of programmed maintenance.
 - ◇ Inspections are visual and operational examinations of parts of our property to determine their condition.
 - ◇ All dwelling units, buildings and sites must be inspected at least annually.
 - ◇ **Goal: Inspection-generated work orders are completed within 30 calendar days from the date of inspection, OR if cannot be completed within 30 calendar days, are added to the Deferred Maintenance Plan or the Capital Improvement Plan in the case of qualifying capital repairs (unless health/safety issue).**
- V. **Requested Maintenance** - Work which is requested by residents or others, does not fall into any category above, and should be accomplished as time and funds are available.
 - Requests from residents or others for maintenance work which does not fall into one of the other categories has the lowest priority for staff assignment.
 - **Goal: Requested work orders are completed in 14 calendar days from the date of tenant request or if not completed within that timeframe (and not a health or safety issue), the task is added and completed in a timely manner as a part of the Deferred Maintenance Plan and/or CIP.**

Emergency Request System

For emergency requests call the numbers listed here. Qualifying emergency work requests are listed below.

METHOD	CONTACT INFO.	TIMES
Call Answering Service	617-988-HELP (4357)	24 Hr. Backup for main Work Order line
Call LHA at Phone Number	617-988-HELP (4357)	24 Hr. Work Order Center
Other	Management/Maint Office	9am to 5pm Monday through Friday.

See attached **Preventative Maintenance Plan** for more details.

List of Emergencies - Emergencies are those conditions which are immediately threatening to the life or safety of our residents, staff, or structures. The following is a list of typical conditions that warrant an emergency response. If there is an emergency condition whether or not enumerated on this list please notify the office or answering service at the numbers listed above. If you have any questions regarding this list or other matters that may constitute an emergency, please contact the BOSTON HOUSING AUTHORITY main office.

QUALIFYING EMERGENCY WORK REQUESTS
Fires of any kind (Call 911)
Gas leaks/ Gas odor (Call 911)
No electric power in unit
Electrical hazards, sparking outlets
Broken water pipes, flood
No water/ unsafe water
Sewer or toilet blockage
Roof leak
Lock outs
Door or window lock failure
No heat
No hot water
Snow or ice hazard condition
Dangerous structural defects
Inoperable smoke/CO detectors, beeping or chirping
Elevator stoppage or entrapment
Any other life-threatening condition not listed above.

Normal Maintenance Request Process

Make normal (non-emergency) maintenance requests using the following methods:

METHOD	CONTACT INFO.	TIMES
Text Phone Number		
Call Answering Service	617-988-HELP (4357)	24 Hr. backup for Work Order line
Call Housing Authority Office	Individual site Management Office	8am to 5pm Monday through Friday
Submit Online at Website	BHA website link for customer service requests	Available 24 hours and staffed 8am to 5pm M-F
Email to Following Email	support@bostonhousinghe lp.zendesk.com	Available 24 hours and staffed 8am to 5pm M-F
Other	617-988-HELP (4357)	24 Hr. Work Order center

Work Order Management

- A. EOHLC review of this housing authority's operations shows that the authority uses the following system for tracking work orders: Emphasys/Elite
- B. We do not track deferred maintenance tasks in our work order system.
- C. Our work order process includes the following steps:

Step	Description	Checked steps are used by LHA
1	Maintenance Request taken/submitted per the standard procedures listed above for the Emergency Request System and the Normal Maintenance Request Process.	<input checked="" type="checkbox"/>
2	Maintenance Requests logged into the work system	<input checked="" type="checkbox"/>
3	Work Orders generated	<input checked="" type="checkbox"/>
4	Work Orders assigned	<input checked="" type="checkbox"/>
5	Work Orders tracked	<input checked="" type="checkbox"/>
6	Work Orders completed/closed out	<input checked="" type="checkbox"/>
7	Maintenance Reports or Lists generated	<input checked="" type="checkbox"/>

- D. Additional comments by the LHA regarding work order management:

The Authority is continuing to implement additional features and components of the work order system to allow for more efficient creation, assignment and completion of work orders, retain better documentation of completed work, and improve customer service and effective communication to residents regarding the status of their individual work order requests. We are

also implementing a Deferred Maintenance protocol that will apply to non-emergency work expected to take more than 14 days to complete.

Maintenance Plan Narrative

Following are BOSTON HOUSING AUTHORITY's answers to questions posed by EOHLC.

- A. Narrative Question #1: How would you assess your Maintenance Operations based on feedback you've received from staff, tenants, EOHLC's Performance Management Review (PMR) & Agreed Upon Procedures (AUP), and any other sources?

After successful implementation of new, streamlined procedures last fiscal year for work order management and vacancy turnover, BHA remains engaged in, and committed to, an ongoing evaluation of all aspects of the work order process and maintenance operations, with a goal of further increasing efficiency of maintenance delivery, improving customer service, and maximizing the capabilities of the work order software and other technology that can be used to improve the quality of inspections and the response to maintenance issues. Some of the coming features will include increased quality control on finished work, and the auto-generation of cyclical work items for greater efficiency.

- B. Narrative Question #2: What changes have you made to maintenance operations in the past year?

BHA has transitioned from a paper-driven work order system to fully digitized work orders with the implementation of Work Order Touch, which is a new phone-based application that allows maintenance staff to receive work order assignments on their phones, and close out the work requests as each job is completed, with no need for the added steps of printing paper and data entry. This application also allows maintenance staff completing the work to attach a photo of the completed repair.

- C. Narrative Question #3: What are your maintenance goals for this coming year?

To continue to build on efforts geared toward increasing efficiency of maintenance delivery, improving customer service, and maximizing the capabilities of the work order software and other technological resources to better communicate with resident customers, and to continue to improve the quality of the completed work and provide staff with more and better tools to succeed. This will include the implementation of a Deferred Maintenance protocol, the auto-generation of cyclical work items and improved reporting/information tools for management and maintenance supervisory staff.

D. Maintenance Budget Summary

The budget numbers shown below are for the consolidated budget only. They do not include values from supplemental budgets, if any.

	Total Regular Maintenance Budget	Extraordinary Maintenance Budget
Last Fiscal Year Budget	\$0.00	\$0.00
Last Fiscal Year Actual Spending	\$0.00	\$0.00
Current Fiscal Year Budget	\$0.00	\$0.00

E. Unit Turnover Summary

# Turnovers Last Fiscal Year	82
Average time from date vacated to make unit "Maintenance Ready"	30 days
Average time from date vacated to lease up of unit	125 days

F. Anything else to say regarding the Maintenance Plan Narrative?

[NOTE -- These budget numbers were missing on 9/12/2025, but I reported it to the programmer...hopefully they'll fix it soon. --Beth Thompson, EOHLC]

Attachments

These items have been prepared by the BOSTON HOUSING AUTHORITY and appear on the following pages:

Preventive Maintenance Schedule - a table of preventive maintenance items showing specific tasks, who is responsible (staff or vendor), and the month(s) they are scheduled

Deferred Maintenance Schedule - a table of maintenance items which have been deferred due to lack of resources.

PREVENTIVE MAINTENANCE

Chapter 1:	Introduction
Chapter 2:	Development Systems Inventory, Work Stations, Schedules and Service Records
Chapter 3:	General Standards for maintenance of mechanical spaces
Chapter 4:	Electrical systems and Exterior/common area lighting
Chapter 5:	Elevators
Chapter 6:	Fire Safety Systems
Chapter 7:	Generators
Chapter 8:	Heating Systems
Chapter 9:	Plumbing Systems
Chapter 10:	Ventilation and Air Conditioning
Chapter 11:	Roofs
Chapter 12:	Small Equipment and Skid Steer Loaders
Chapter 13:	Vehicles/Trucks
Chapter 14:	Trash Chutes and Compactors
Chapter 15:	Regular Custodial Preventive Maintenance

Chapter 1 Introduction to Preventive Maintenance

This part of the SOP manual contains the policies and procedures for preventive maintenance for the Boston Housing Authority's Family and Elderly Developments. Each of the sections provide information on the exact procedures, record keeping, activity cycles, and lines of responsibility for each building system or component covered by this policy.

The preventive maintenance program serves multiple purposes such as reducing repairs, repair costs, and loss of service to residents. The program prolongs the life of buildings, systems and structures. When preventive maintenance activities are performed correctly, we improve customer service and eliminate major breakdowns that create inconvenience to residents. Performance of preventive maintenance tasks is completed by site staff, central staff and contractors, depending upon the system or task.

1.1 Defining the Terms

Preventive maintenance is the term used to describe maintenance activities which, when performed consistently and correctly, help to prevent breakdowns and extend the life of building features, equipment and systems. These activities can be categorized in a hierarchy as follows:

Inspection – Testing – Cleaning – Serving – Repair – Replacement

1.1.1 Inspection

Inspection is an integral part of any preventive maintenance program. Inspection includes casual observation in the course of the day by BHA staff and residents through which deficiencies can be reported and corrected as well as formal inspections on a regular basis of all building components and systems. Most of the inspections called for in this manual will be performed by BHA staff (Managers, Laborers, Groundskeepers, Resident Custodians and Superintendents); others will be performed by trained technical staff such as electricians, fire extinguisher contractors, and others. Inspections pick up problems on a regular basis and report them for correction before they become larger problems.

1.1.2 Testing

In general, testing is performed as a method to determine whether or not an item is working correctly. The most significant testing is performed by the fire alarm contractor who tests every "device" (smoke detectors, pull stations, sprinkler heads, etc.) every year. Other testing includes checking the generator weekly to make sure it runs, testing boilers prior to the start of the heating system, and so forth

1.1.3 Cleaning

While cleaning may not be considered a part of preventive maintenance, it is critical to the operation of many systems. It includes regular cleaning of elevator tracks to prevent the build up of debris, regular cleaning of carpets to prevent deterioration from dirt particles, regular cleaning, stripping and waxing of VCT flooring to lengthen the life of such surfaces, and regular wipe downs of all equipment after every use. It also includes cleaning of boiler fire chambers, cleaning of oil supply nozzles, and other more technical cleaning tasks which may require special training.

1.1.4 Service

Service includes such work as lubrication, changing filters, changing belts, changing oil, etc. on equipment. Small equipment such as lawnmowers and snow throwers should be serviced at least annually. Generators should be serviced quarterly. Heating systems must be serviced at various levels as frequently as daily; other service can be performed weekly, monthly, quarterly or annually. Tasks involved in service are very specific ("lubricate burner motor," "adjust hoses and belts," "replace oil lube filter"). These specific tasks are detailed on each of the service checklist forms, which will be found for various equipment and systems in this manual. All service requires some training; most service must be done by appropriate trained personnel on the BHA staff or by contractors.

1.1.5 Repair

Repairs are made either as the result of an inspection, testing or service activity which identified a repair need, or when an item suddenly becomes dysfunctional. In general, preventive maintenance activities are performed both to prevent the need for repair and to identify repairs needed before they reach the point that they cause a complete malfunction. Some repairs are actually replacements but are usually considered a repair if the item being replaced is a minor component of the system. For instance, a belt might break and cause a malfunction; you will replace the belt, and this is considered a repair to the overall equipment.

1.1.6 Replacement

Replacement of an entire system or component should only occur when the system has met or exceeded its useful life. A roof, for instance, should last between 20 and 30 years. While you might need to make repairs to the roof after 10 or 15 years, a properly cared for roof should not need to be replaced until the 20 or 25 year point. The same applies to a variety of building systems. Very frequently, well cared for building systems can last well beyond their anticipated useful life.

1.2 Defining the Expectations

The Manager of each development is responsible for insuring that all preventive maintenance activities are carried out on schedule and properly recorded. Most of the work of supervising preventive maintenance in Family Developments is delegated by the manager to the Maintenance Superintendent. In addition, the BHA's service programs coordinator handles preventive maintenance on a variety of highly technical systems, such as elevators and fire alarms, and the heating systems coordinator supervises much of the work required on large heating systems. The following lists more specifically these responsibilities:

1.2.1 Development Management and Maintenance Staff

(Includes tasks performed by managers, maintenance superintendents, laborers, groundskeepers as well as work performed by contractors under the supervision and direction of the manager)

- Boiler room Inspections
- Annual replacement of Whalen Unit filters
- Daily/Weekly walk through inspections
- Quarterly Building and Grounds Inspections
- Monthly test of emergency lighting systems
- Weekly inspection of generator
- Annual testing and servicing of fire extinguishers
- Annual replacement of batteries in battery operated smoke detectors
- Annual or more frequent preventive clearing of main drain systems
- Annual steam cleaning of trash chutes
- Annual replacement and/or cleaning of window A/C filters
- Weekly/Quarterly inspection of roof and roof fans
- Annual clearing of main vertical and horizontal drains
- Regular cleaning of gutters and down spouts
- Regular care of trash compactors
- Annual service of small engine equipment (i.e. lawn mowers and snow blowers)
- Regular cleaning of elevators and tracks

1.2.2 Heating Plant Staff

- Weekly inspection and service of boiler Rooms
- Annual cleaning and state inspections of boilers
- Regular service on burners and other boiler components

1.2.3 Service Program Coordinator

- Monthly elevator service
- Annual elevator inspections
- Quarterly testing of fire alarm systems
- Annual testing of back flow preventers
- Quarterly & annual service to generators
- Steel Skid Loader Service Three Times per Year
- Annual testing of sprinklers & fire pumps
- Management of Roofing Repair Crew
- Quarterly inspections of all BHA Fleet Vehicles
- Annual Dumpster surveys

1.2.4 Construction and Repair Division

Replacement of major building systems and equipment

1.3 Tracking and Reporting

Critical to the completion of preventive maintenance work is maintaining accurate and complete records of all work completed.

1.3.1 Record Keeping

Establish an **Annual Service Record Book, usually a loose-leaf binder**. Managers will establish a service record binder for each fiscal year. In the event that the material is too voluminous to be contained in one book, managers may decide to keep certain materials - such as weekly reports (B&G walk-through short-

forms, IPM service records etc) - in separate notebooks or files, noting in the primary notebook where to find this material.

The Service Record Books will contain all records of Preventive Maintenance performed during the year by in-house staff or by contractors. It will also include call-back service slips for items such as elevators and alarm systems. Follow the instructions in each chapter under record keeping to determine what should be in each section. Establish a section for each type of system or structure at the development.

The Service Record Binder will also contain all reports of flush out extermination.

All materials required should be filed in this book as they occur. All records must be complete no later than **April 10** of each year.

The **Work Order System** at each development will be used to maintain records of all work performed by in-house staff on the systems referred to in this manual as well as all other repair work occurring at the development. All preventive maintenance (P) work orders shall be filed in the Annual Service Record binder as well as in the work order system files.

The **purchase order filing system** shall include copies of all purchase orders, etc. and shall act as a back up filing system if necessary for preventive maintenance.

Instructions for filing of specific information is found in the Policies and Procedures sections of each of the building systems addressed in this manual.

1.3.2 Annual Schedule of Activities

As a final step in preventive maintenance planning, an annual schedule of activities will be prepared for each development. Throughout this Manual, this form is referred to as the Annual PM Plan – Schedule and Report Form. This schedule will detail out daily, weekly, monthly, quarterly and annual maintenance activities for easy reference and manager planning. The format for this schedule is contained in the SOP Master Building Systems Appendices on the S: FamEld Drive, and is a combined schedule/reporting form. The annual landscape maintenance plan, snow removal plan and annual pest management plan supplement building systems preventive maintenance plans. These plans should be maintained in the Building Systems Inventory Binder and up-dated each year.

1.3.3 Reporting

Managers will report on all preventive maintenance activities to their Regional Managers or Assistant Director of Property Management on a monthly basis. This report shall indicate the annual plan of activities and report, on a cumulative basis, what work has actually been accomplished. The report format is available in the SOP Master Building Systems Appendices on the S: FamEld Drive (same as schedule referenced above). Each development shall set up the report at the beginning of the fiscal year, based on the site's systems and schedule of activities, and report out monthly on completion of activities planned.

Chapter 2 Development Systems Inventory, Work Stations, Schedules and Service Records

2.1 Creating A Development Profile and Systems Inventory (Systems Inventory Book)

In order to properly maintain its systems and structures, a development staff needs to know what they have. Thus each development needs a Development Profile and Systems Inventory notebook or binder (referred to as the Systems Inventory Book throughout this manual). This book shall be updated each time there is a change in the system through a capital replacement or repair project, purchase of new equipment or vehicles, or major operations upgrade project.

Each Systems Inventory book shall contain detailed information on all of its structures and systems including sections on the following items, as applicable to each development:

- Site & Floor Plans, including number of buildings and units, types of units
- Annual Preventive Maintenance Plan Schedules and report forms, including Preventive on building systems, pest management, snow removal and landscape care
- Record of Capital Improvements
- Inventory, specification sheets, and service checklist forms for the following systems:
 - Electrical systems
 - Exterior and Interior common area lighting
 - Elevators
 - Fire Safety Systems
 - Generators
 - Heating Systems and all components
 - Plumbing Systems including domestic hot water
 - Roofs
 - Equipment and Vehicles
 - Trash Chutes and Compactors
 - Ventilation and Air Conditioning Systems

Inventory and Specification sheets shall include detailed information on the location, age of the system and components, replacement parts, warranty information etc as applicable and specific scheduled preventive maintenance procedures to be conducted on each system. What is to be included in each section is described in each of the following chapters of this manual. Sample Master System Inventory, Specification and Checklist forms are contained in the SOP Master Building Systems Appendices on the S: FamEld Drive. These forms will need to be customized for the actual systems and components in your Development.

Many Developments may already have a *Profile and System Inventory* notebook created for the systems and components at their sites. This data may need to be reviewed and updated. Technical Staff from the Building Services Department are currently working on revising and updating Authority-wide system inventory and specification information and may be able to provide you with assistance on creating or updating a *Systems Inventory Book* for the systems at your Development.

Our goal is to format a *Development Profile and Building System folder* on the Fam/Eld S:Drive for every Development. These folders will contain inventory, specifications and warranty information etc specific to each building structure, system and component at each Development. This initiative is a *work-in-progress*. The Building Services Department's Technical staff will be working with you on this initiative. As the information is gathered, it will be formatted and saved on the Fam/Eld S:Drive in the folder labeled **SOP Profile and Bldg. Systems by Development**.

The **SOP Profile and Bldg. Systems by Development** folder will be divided into sub-folders that correspond to each Development e.g. Charlestown's sub-folder will be labeled **101- Charlestown Profile and Bldg. Sys.** Each Development sub-folder will be further sub-divided into folders for each Building System/component/structure etc subject to preventive maintenance and organized the same way as the sub-folders in the SOP Master Building Systems Appendices folder.

2.2 Creating a PM work station

Each superintendent shall have constructed an appropriate work station for maintaining all checklists and schedules for in-house staff to complete. This work station must consist of a bulletin board on which systems information is maintained, a sample of each type of checklist is maintained, and clip boards containing all of the checklist forms which are regularly used, such as for generators, heating systems and so forth. Items used only annually do not need to be included at the work station. The work station will also include a protected (framed or laminated) copy of the annual PM schedule.

Developments may need to create more than one PM work station depending on the location of various equipment and on who is assigned to maintain it. For instance, it probably makes sense to have the boiler room PM information in the boiler room and all other information in the maintenance office.

2.3 Creating an Annual Preventive Maintenance Plan

As a final step in preventive maintenance planning, an annual calendar of activities will be prepared for each development. This schedule will detail out daily and weekly activities, and schedule out all annual maintenance tasks for easy reference and manager planning.

Based on Preventive Maintenance Task Frequency and seasonally related work, the Maintenance Superintendent shall schedule all activities required on an annual basis. For instance, quarterly service of generators might take place during the first week of April, July, October and January. Annual inspection and service of extinguishers might be done in October. Boiler cleaning might be done in July. The Heating Systems Coordinator will be involved in assisting to schedule out heating related systems maintenance and the Service Systems Coordinator will assist with fire alarm maintenance, elevator maintenance and other items. The Garage staff will schedule preventive maintenance on all trucks.

Forms and procedures for producing this plan have been developed and are located in the SOP Master Building Systems Appendices on the S: FamEld Drive

2.4 Maintenance of Service Records

Each development shall maintain a complete record of all preventive maintenance services performed on an annual, fiscal year basis (April 1 through March 31). This shall be set up as a loose-leaf binder divided into sections for each category of preventive maintenance, pest management, Building and Grounds Quarterly Inspections and landscape care completed at the development. This is referred to in this manual as the "Annual Service Record Binder or Book." Copies of all inspections, service records, and repair records shall be maintained in this binder for all systems and structures subject to preventive maintenance. Those areas, such as building and grounds walk-through short-form inspections and daily fireman log sheets, which create voluminous amounts of paper, may be set up in separate binders or files, in chronological order, starting over each April 1.

The following chapters describe, at the end of each system or structure defined, what records must be maintained in the Annual Service Record Binder or Book. Records may include inspection reports, service records from contractors, service checklists from staff, and repair records, both from contractors and staff (i.e. work orders).

Chapter 3 General Standards for Maintenance of Mechanical spaces

This chapter is included as a supplement to the information found in each of the building systems chapters that follow. This chapter deals with the responsibility of site staff to maintain the spaces that mechanical equipment is housed in.

Standard: All boiler rooms and other mechanical spaces shall be maintained securely, cleanly, litter and debris free, and well lit at all times. Areas should be painted wherever practical in order to achieve a high level of cleanliness.

3.1 Boiler Rooms

It is the responsibility of site staff – managers and maintenance superintendents – to insure that boiler rooms are maintained properly at all times. These tasks are the responsibility of the Fireman. Boiler rooms must be:

- Able to be locked and properly secured whenever no one is in it
- Have no broken windows
- Be properly and completely lit at all times
- Be free of debris and dirt at all times
- Be free of storage (do not use boiler rooms as storage areas)
- Have organized shop areas, if any
- No furniture except desk and desk chair. No TV's
- Have clean desk areas, if any
- Have clean bathrooms, if any
- Have a painted floor (repaint at least annually with heavy duty deck paint)
- Have walls painted at least 8 feet high (repaint at least every two years)
- Have working eye wash stations (if using disposable stations monitor expiration date for washing solution and replace as needed.)
- Have working and well located fire extinguishers, serviced annually
- Have working door, burner and flood alarm systems
- Be free of any safety hazards (mark or paint all low pipes)
- Have Burn kits and First Aid kits maintained and up to date
- Have spill kits and barrels (in oil fired boiler rooms)

3.2 Interior transformer areas

All interior transformer areas must be in rooms, which can be locked and are maintained in a locked state at all times, free of clutter and debris. Treat any leaks as hazardous and report to Building Services immediately.

3.3 Transformers: (exterior)

Some transformers are located outside, in enclosed fenced in areas. These fences must be securely locked at all times and the areas inside the fence clear of debris, weeds and shrubbery. If transformer is not enclosed it should be clean and free of clutter, shrubs trimmed.

3.4 Dispersed boilers/hot water heater areas of basements or rooms

If these items are in rooms, they should be kept locked at all times. Each such room should be on the same key for ease of maintenance. Some of these items may not be in separate rooms, increasing the need to insure that the basement itself is secure. The areas around this equipment should be clean and free of debris. It is helpful to paint the floor area around the equipment or if in a separate room, to paint both walls (to 8 feet) and floors. All such areas must be clearly lit at all times.

3.5 Primary and Secondary Electrical Panels

If main electric panels are in separate rooms, the rooms must be locked at all time. If not, it is critical to keep the basement locked at all times. All panels must be kept covered at all times, and locked. No storage is permitted near electrical panels and access to electrical panels must be free at all times.

3.6 Generators

If generators are in separate rooms, the rooms must be locked at all time. If not, it is critical to keep the basement locked at all times. No storage is permitted near generators. Generator rooms must be painted and kept free of debris and dirt at all times.

Some generators are located outside, in enclosed fenced in areas. These fences must be securely locked at all times and the area inside the fence free of debris, weeds and shrubbery.

3.7 Condensate return units

Condensate return units are generally in open areas of basements. Insure that lighting is available at all times at the unit. Maintain the areas free of debris and dirt. Keep spare pumps and motors on hand.

3.8 Sump pumps

Sump pumps will be located in a variety of locations including boiler rooms and basements. Keep spares on hand. You should have 2 that are operational and a spare. Insure that no debris is in the sump pump pit and that sump pump areas are well lit.

3.9 Cable and phone junction boxes

Cable and phone junction boxes are generally located in basements but may also be in back stairwells of some developments. These boxes should be covered and locked at all times. This is the responsibility of the phone and cable companies.

3.10 Maintenance Shops & Offices

- Clean; organized; free of clutter
- Rest room clean, operational
- Doors secure; locks functional
- Floors and walls painted
- Adequate lighting
- Proper storage of flammable materials
- Floors and walls painted
- Appropriate furniture
- Lunch area for staff including table, chairs, refrigerator, microwave, sink (if possible) and lockers

3.11 Responsibility for Maintaining Standards

It is the responsibility of site staff to insure that all of the above standards are met. Day shift firemen are primarily responsible for boiler room maintenance items under the supervision of the site superintendent. Supervisory staff from the Building Services Division will perform regular inspections and assist in supervision, but the primarily responsibility for meeting these standards is the site superintendent's.

Similarly, the site superintendent is responsible for maintenance of all other mechanical spaces. Laborers and janitor/groundskeepers generally carry out the work, though tradesmen should be asked to conduct regular PM inspections and electricians and painters may be needed to conduct certain other tasks related to these spaces.

3.12 Responsibility for Materials, Supplies and Parts

It is the Site Superintendent's and Manager's responsibility to provide all necessary materials, tools, supplies and replacement parts needed to maintain boiler rooms and all equipment. Firemen or Building Services staff may make requests for such items, but orders shall be placed and managed by site staff.

3.13 Dealing with Oil Spills and Chemicals

Developments that use oil must purchase a 20-gallon Spill Pack Kit. This kit contains what you would need if there were an oil spill in the Boiler room.

All oil spills must be entered in the logbook and noted how the spill was cleaned up. It must be reported to the Heating Plant Coordinator, Manager and Maintenance Superintendent immediately.

Spill Pack Kits can be purchased through the Grainger catalog or at any oil supply company.

Chapter 4 Electrical systems and Exterior/common area lighting

4.1 Electrical Distribution System

4.1.1 Objective:

To insure the continuous provision of electricity to the development

4.1.2 Scheduled Activities

Annually:

Manager/Maintenance Superintendent Responsibilities:

Once a year, the Manager shall arrange for an in-house Electrician to perform a general inspection of the electrical distribution system. The electrician shall record on a site-map the location of all main service panels and the specifications for each unit. Based on this list, the Manager shall include stock requirements in their stock inventory system for the development.

Electrician

Annually, the Electrician shall perform a general inspection of the electrical system including, but not limited to:

1. Pulling the main circuit boards
2. Checking all circuit breakers and breaker boxes
3. Checking all main feeders
4. Tightening all lugs

4.1.3 Systems Inventory Information

An Electrical Distribution Systems Inventory and Specification sheet, including location and replacement part information, shall be maintained in the Systems Inventory Book and updated as needed. A site plan of all main service panel locations will be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the system at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Electrical Distribution Systems inventory, specification and checklists forms.

4.1.4 Service Records

Records of the Electrical Distribution preventive maintenance activities including all inspection and service checklists, repairs etc will be filed in the annual Service Record Binder in the Electrical Section.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

4.2 Battery Pack Emergency Lighting Systems

4.2.1 Objective:

To insure that all battery pack emergency lighting systems are in good working order in the event of an electrical shut down.

4.2.2 Scheduled Activities

Daily/Weekly

Laborer/Groundskeeper/Custodian Responsibilities:

During the course of daily work, the Laborer/Groundskeeper/Custodian should note any obvious breakage of the emergency lighting system and report such breakage immediately.

Monthly

Manager/Maintenance Superintendent's Responsibilities:

Once a month, the Manager/Maintenance Superintendent shall test the emergency lighting system by pressing the test button, then observing all lights to determine that they come on. If it indicates 'low charge' the battery must be changed.

Quarterly

Manager/ Maintenance Superintendent's Responsibilities:

To conduct a formal inspection of the building exterior for each unique building address. Note any breakage/defect of the emergency lighting system. Test the emergency lighting system by pressing the test button, then observing all lights to determine that they come on. If it indicates 'low charge' the battery must be changed. All deficiencies found during any inspection shall be transferred to work orders for correction as either emergency or Building and Grounds priorities.

As Needed

Manager/Maintenance Superintendent Responsibilities:

In the event that any component of an emergency lighting system is not working, the Manager or Maintenance Superintendent shall create a work order and/or contact a contractor to make appropriate repairs. In the event that an in-house Electrician completes the work, the Manager shall obtain all stock required for the repair. All such repairs shall be treated as very urgent.

4.2.3 Systems Inventory Information

A Battery Pack Emergency Lighting System Inventory and Specification sheet, including location and replacement part information, shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Battery Pack Emergency Lighting system inventory, specification and checklists forms

4.2.4 Service Records

Records of all Battery Pack emergency lighting system preventive maintenance activities including all inspection and services checklists, repairs etc will be filed in the annual Service Record Binder in the Electrical Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

Copies of all formal Quarterly Building and Grounds Inspection forms must be included in the annual Service Record Binder.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

4.3 Intercoms

4.3.1 Objective:

To insure an operable intercom system for the safety of all residents.

4.3.2 Scheduled Activities:

Annually

Manager/Maintenance Superintendent Responsibilities:

In garden style buildings, the Manager/Maintenance Superintendent shall test all intercoms in the course of the annual living unit inspection program to insure their correct operation. In multi-family dwelling buildings, the Manager/Maintenance Superintendent may choose to perform the annual testing of the intercom system with the assistance of a Laborer/Groundskeeper. Utilizing two way radios is an efficient method of performing these inspections.

In the event that any intercom is not working properly, the Manager/Superintendent shall create a work order and/or issue a purchase order to have the intercom repaired by a contractor or an in-house Electrician.

Note: The intercom test can serve a second purpose by determining if any residents are buzzing people in without checking on who they are first. This can be an important part of safety education training.

4.3.3 Systems Inventory Information

An Intercom/door bell system Inventory and Specification sheet, including location and replacement part information, shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Intercom system inventory, specification and checklists forms

4.3.4 Service Records

Records of all Intercom/door bell systems preventive maintenance activities including all inspection and services checklists, repairs etc will be filed in the annual Service Record Binder in the Electrical Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files. Records of intercom/door bell system repairs shall also be maintained as part of the Living Unit inspection system.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

4.4 Emergency Pull Cord (Call-for-Aid) Systems

4.4.1 Objective:

To insure that all pull cords are in proper working order to insure resident safety.

4.4.2 Scheduled Activities:

As-Needed

Manager/Maintenance Superintendent's Responsibilities:

Any time that an emergency pull cord is found to be out of order, the Manager or Maintenance Superintendent shall create an emergency work order, or issue an emergency purchase order to have it repaired immediately. This includes insuring that the chain or cord is hanging loosely below the actual switch and that all lights and enunciators are working properly.

Annually

Manager's Responsibilities:

Annually as part of every Living Unit Inspection, the Manager shall test the emergency pull cord to determine whether or not it is in good working order. In the event that the pull cord does not work, an emergency work order or purchase order shall be issued to have it repaired immediately.

4.4.3 Systems Inventory Information

An Emergency Pull Cord System Inventory and Specification sheet, including location of enunciators and enunciator panels and replacement part information, shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Emergency Pull Cord system inventory, specification and checklists forms

4.4.4 Service Records

Records of all Emergency Pull Cord System preventive maintenance activities including all inspection and services checklists, repairs etc will be filed in the annual Service Record Binder in the Electrical Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files. Records of Emergency Pull Cord System repairs shall also be maintained as part of the Living Unit inspection system.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

4.5 Exterior Lights

4.5.1 Objective:

To maintain maximum exterior lighting at all times.

4.5.2 Scheduled Activities:

Daily/Weekly

Laborer/Groundskeeper/Custodian Responsibilities:

To inspect all exterior lights [mounted on buildings or pole lights] daily and report any problems such as broken fixtures or missing/broken bulbs to the Manager/Maintenance Superintendent immediately. All problems must be recorded on the weekly Building & Grounds short-form. The Manager/Maintenance Superintendent shall issue a work order for the repairs.

Weekly

Manager/ Maintenance Superintendent's Responsibilities:

During each weekly Building and Grounds Walk-through inspection, the Manager/Superintendent shall observe all exterior lights to note any problems. Manager/Superintendent must also review the completed weekly Building and Grounds inspection forms to make sure that all deficiencies recorded were reported [and visa-versa] and transferred to work orders for correction as either emergency or Building and Grounds priorities.

Quarterly

Manager/ Maintenance Superintendent's Responsibilities:

To conduct a formal inspection of the building exterior for each unique building address. Note any broken fixtures or missing/broken bulbs. All deficiencies found during any inspection shall be transferred to work orders for correction as either emergency or Building and Grounds priorities.

Annually

Manager Responsibilities:

Once each year, in October, the Manager shall inspect all exterior lights at night to insure that all are working properly.

Maintenance Superintendent Responsibilities:

Once each year, during the period from May to October, the Maintenance Superintendent shall arrange to change/repair/re-lamp all non-working exterior lights.

As Needed:

Maintenance Superintendent Responsibilities:

In the event that a lamp burns out or there are other problems with the exterior lights between annual re-lamping dates, the Maintenance Superintendent shall issue a work order and arrange to have the exterior light repaired.

4.5.3 Systems Inventory Information:

An Exterior Light Inventory and Specification sheet, including location and replacement part information, shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Exterior Light system inventory, specification and checklists forms.

4.5.4 Service Records

Records of all Exterior Lights preventive maintenance activities including all inspection and services checklists, repairs etc will be filed in the annual Service Record Binder in the Electrical Section. Records of

all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Chapter 5 Elevators

5.1 Objective:

To insure the safe and continuous operation of elevators through regular service and inspection. To maintain elevators in accordance with applicable ordinances and codes,

5.2 Scheduled Activities:

Daily/Weekly

Laborer/Groundskeeper/Custodian Responsibilities:

Daily, the Laborer/Groundskeeper/Custodians shall clean the elevator cabs and sills, check the lighting in the cab and replace any burnt out bulbs (if applicable), check the call buttons, wipe down the electric eye and determine that each elevator is operable. In the event that an elevator is not functioning properly, he/she will report this to the Manager, or in his/her absence, to the Maintenance Superintendent. All problems must be recorded on the weekly B&G inspection form. If a certain address is habitually out of service due to use or vandalism, it should be brought to the attention of the Service Programs Coordinator.

Monthly

Elevator Service Contractor Responsibilities:

The Elevator Service Contractor is responsible for inspecting and servicing each elevator at least once each month or more frequently if so specified in the service contract. The tasks to be completed and the frequency for each task are defined on the BHA elevator preventive maintenance chart that is maintained in the elevator machine room. See S: FamEld Drive – SOP Master Building Systems Appendices for master Elevator preventive maintenance chart.

Quarterly

Manager/ Maintenance Superintendent's Responsibilities:

To conduct a formal inspection of the building's common areas for each unique building address. Record any problems noted with the Elevators and notify the Service Programs Coordinator.

Annually

Elevator Service Contractor /Service Programs Coordinator Responsibilities:

The Elevator Service Contractor is responsible for arranging for and coordinating with the Service Programs Coordinator, an annual inspection of all elevators by the State Elevator Inspector.

As Needed

Service Programs Coordinator Responsibilities:

The Service Programs Coordinator is responsible for bidding the elevator service contract every two years, for monitoring monthly performance against contract provisions, for insuring payments against the contract, and for making decisions concerning major repair work within the contract.

Manager/Maintenance Supervisor Responsibilities:

The Manager/Maintenance Supervisor is responsible for insuring that the elevator is properly cared for by the Laborer/Groundskeeper/Custodian, for reporting all problems with the elevator to the Service Programs Coordinator, and for obtaining copies of service slips for every visit by an Elevator service contractor. The Manager has authority to call the contractor for service on the elevator whenever it malfunctions during normal working hours. All calls for service shall be entered in the Elevator Service Log and tracked. See S: FamEld Drive – SOP Master Building Systems Appendices for master Elevator Service Log form.

Elevator Service Contractor's issues such as response times for emergencies, chronic issues with the same address or monthly maintenance work not performed should be brought to the attention of the Service Programs Coordinator immediately.

5.3 Policies for calling for emergency service

During normal working hours, the Manager and the Maintenance Superintendent have authority to contact the Elevator service contractor for service.

During non-working hours, The Work Order Center shall contact the Emergency Response Service Manager to report the problem. The ERS Manager will have authority to contact the Elevator service contractor for service.

In Developments with Special Assignment Laborers, the Work Order Center shall contact the Special Assignment Laborer, who will then check to determine if the elevator is malfunctioning, and be authorized to contact the Elevator service contractor for service. If the Special Assignment Laborer calls for service, he/she must meet the contractor, state the reason they have requested emergency service and sign service slip from elevator service contractor. A fire alarm will trigger the elevator into an emergency recall position. The Fire Alarm service contractor will have to be called to reset the system.

5.4 Policies for Inspection Notifications:

The manager is responsible for notifications to residents when the elevator car will be out of service due to inspections. Fire Alarm and Generator service contractors must be notified for yearly inspections and access must be provided. This should be coordinated with the Service Programs Coordinator.

5.5 Systems Inventory Information:

An Elevator Inventory and Specification sheet, including location and service contract information shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Elevator inventory, specification and checklists forms, Elevator Service Logs and Elevator PM Chart.

5.6 Service Records:

Records of all Elevator preventive maintenance activities including all inspection checklists, service slips, repairs etc will be filed in the annual Service Record Binder in the Elevator Section.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

The Elevator Service Contractor is responsible for filling in the BHA Elevator Preventive Maintenance Chart maintained in the elevator machine room at the time of each servicing and for providing a service slip for every visit (preventive or service visit) with information on the date, time and duration of the visit and on the work performed. This service slip shall be left with the Manager.

The Manager is responsible for maintaining all service call slips in the Service Records Binder. Service Programs Coordinator shall be responsible for maintaining central records of all service and testing etc.

Chapter 6 Fire Safety Systems

6.1 Fire Alarm – Connected Systems

6.1.1 Objective:

To insure that the fire alarm system is operating properly and is maintained in accordance with applicable ordinances and codes.

6.1.2 Scheduled Activities:

Weekly/Daily

Manager/Superintendent/Laborer/Groundskeeper/Custodian Responsibilities:

The Manager/Superintendent/Laborer/Groundskeeper/Custodian shall check the master alarm panel to determine that there is no trouble at the panel board, as indicated by a trouble light. The master alarm panel is located in various buildings at different Developments. In some Developments the master panel is located in the management office, in which case it is the responsibility of the Manager and management staff to monitor, record and report any problems.

Any problems with the panel or any fire alarm devices (i.e. smoke detectors and pull stations) shall be noted and reported to the Manager [whether it is located in the management office or elsewhere]. All problems must be recorded on the weekly Building & Grounds Inspection short forms. Newer panels will sound an alarm when a trouble is identified. This will have to be acknowledged in order to silence the alarm. The system stores the trouble in its memory. The alarm service contractor will have to be dispatched to repair/replace the device.

As Needed/Weekly

Manager Responsibilities:

The Manager shall report any problems with the fire alarm system immediately upon being informed of the problem to the Service Programs Coordinator. The Manager shall also check all pull stations and the alarm panel during the regular weekly walk-through inspection.

Fire Alarm Service Contractor/In-house Electrician Responsibilities:

The Fire Alarm service contractor or in-house Electrician shall be responsible for re-setting the alarm system acknowledging the trouble after every fire alarm. The fire alarm contractor should respond within two hours to fully re-set the system. If the contractor does not show up in this time period, managers and maintenance personnel should call them. Local device replacement only will be done by site electricians and these must be of the same type and brand as the existing system.

Quarterly

Manager Responsibilities:

The Manager shall coordinate all alarm testing procedures through appropriate notification to residents and by assisting the contractor by having the Laborer/Groundskeeper/Custodian available during testing to open apartment doors as needed.

Fire Alarm Service Contractor Responsibilities:

The contractor is responsible for quarterly testing of the fire alarm system. At each quarterly visit all alarm initiating devices (i.e. pull stations, smokes, system devices) will be checked, including 25% of all apartment smoke detectors shall be tested, so that every device is tested at least once each year. The contractor shall be responsible for coordinating all testing with the development manager.

The Fire alarm service contractor is responsible for completing the Quarterly Inspection Reports and submitting copies to the Manager and to the Fire Department. The contractor is responsible for leaving service slips upon completion of any alarm reset or service visit with the manager.

Every two Years

Service Programs Coordinator Responsibilities:

The Service Programs Coordinator shall be responsible for bidding a service contract once every two years, or at such annual intervals as may be determined to be necessary. The Service Programs Coordinator shall be responsible for maintaining central records of all service and testing, and for payment of all invoices. The services programs coordinator shall be responsible for insuring that all maintenance over and above regular testing is necessary and for approving all expenditures of this type.

6.1.3 Systems Inventory Information:

A Fire Alarm System Inventory and Specification sheet, including location of all devices and service contract information shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the system at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Fire Alarm inventory, specification and checklists forms...

6.1.4 Service Records:

Development Records

Records of all Fire Alarm System preventive maintenance activities including all inspection checklists, service visits, regular testing, alarm resets and repairs etc will be filed in the annual Service Record Binder in the Fire Alarm Systems Section. The Manager shall maintain copies of all reports from the Fire Alarm Testing Contractor in the Service Record binder in chronological order and shall send the original to the Service Programs Coordinator immediately upon its receipt.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Service Programs Coordinator Records

Records of all service visits, including regular testing, alarm resets, and repair calls shall be maintained by the service programs coordinator, along with invoices.

6.2 Fire Extinguisher Inspection and Service Procedure

6.2.1 Objective:

To insure that all required fire extinguishers are in place and serviced on a regular basis in accordance with applicable ordinances and codes.

6.2.2 Scheduled Activities:

Daily/Weekly

Laborer/Groundskeeper/Custodian Responsibilities:

Routinely, the Laborer/Groundskeeper/Custodian is responsible for checking that all fire extinguishers are in their proper locations, and that the seal is not broken and the inspection tag is in place. Any instances should be brought to the immediate attention of the Manager and/or the Maintenance Superintendent. All problems should be recorded on the weekly Building & Grounds Inspection short forms.

Weekly

Manager/ Maintenance Superintendent's Responsibilities:

During each weekly Building and Grounds Walk-through inspection, the Manager/Superintendent shall observe all fire extinguishers to note any problems. Manager/Superintendent must also review the completed weekly Building and Grounds inspection forms to make sure that all deficiencies recorded were reported [and visa versa] and transferred to work orders for correction as either emergency or Building and Grounds priorities.

Quarterly

Manager/ Maintenance Superintendent's Responsibilities:

To conduct a formal inspection of all building common areas. Inspect all fire extinguishers to make sure that they are in their proper locations, and that the seal is not broken and the inspection tag is in place. All deficiencies found during any inspection shall be transferred to work orders for correction as either emergency or Building and Grounds priorities.

Annually

Manager Responsibilities:

The Manager shall issue a purchase order on an annual basis to have all fire extinguishers inspected/serviced by an appropriate contractor. The Manager shall insure that all such inspections include appropriate tagging of all extinguishers indicating the date of the inspection.

Every five years

Manager Responsibilities:

Every five years, the Manager shall issue a purchase order to have all fire extinguishers pressure tested by an appropriate contractor.

6.2.3 Systems Inventory Information

A Fire Extinguisher Inventory and Specification sheet, including location, types, sizes, date of purchase information shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Fire Extinguisher inventory, specification and checklists forms.

6.2.4 Service Records

Records of all Fire Extinguisher preventive maintenance activities including all inspection and service checklists, repairs/replacements etc will be filed in the annual Service Record Binder in the appropriate Section.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

All fire extinguishers shall be tagged by the contractor including the date inspected.

6.3 Sprinkler System Inspection and Service Procedure

6.3.1 Objective:

To insure the continuous, effective and efficient operation of the sprinkler system in accordance with all applicable codes and ordinances.

6.3.2 Scheduled Activities:

Daily/Weekly/as needed

Custodian/Laborer/Groundskeeper's Responsibilities:

The Custodian/Laborer/Groundskeeper shall report any leaking or damaged sprinkler heads as it is noticed to the manager/maintenance superintendent. The Laborer/Groundskeeper or Resident Custodian shall perform a visual inspection of the fire pump, check pump room heat weekly and report any problems/malfunction to the Manager/maintenance superintendent immediately. Any problems/ malfunction should be recorded on the weekly Building & Grounds short-form. Resident Custodians and Laborers/Groundskeepers shall remove all tape or other covering used to protect sprinkler heads during vacant unit preparation.

Manager's Responsibilities:

The Manager is responsible for reporting any damage to or suspected malfunctioning of the sprinkler system or pumps to the Service Programs Coordinator as soon as a problem is detected. The Manager shall arrange with the Superintendent to order and maintain additional heads on site for immediate replacement if/when the need arises.

Annually

Manager/Maintenance Superintendent's Responsibilities

The Manager/Superintendent is responsible for coordinating all sprinkler flow and pump testing with the Service Programs Coordinator and the contractor on an annual basis. This service should include, but not be limited to, flow testing to insure that alarms will sound if sprinkler is triggered, and, pump testing for fire and/or jockey pump.

Service Programs Coordinator Responsibilities

The Service Program Coordinator shall be responsible for obtaining quotes/bids on an annual basis and issuing a contract or purchase order for annual testing of the sprinkler system by an independent licensed sprinkler systems company. This testing is to insure that pump will perform to provide the designed amount of water at the designed pressure in the event of a fire. The Service Programs Coordinator shall be responsible for insuring adequate oversight of the contract; issuing work orders or PO for follow up repair work, and paying bills.

6.3.3 Systems Inventory Information

A Sprinkler System Inventory and Specification sheet, including location of all devices, replacement parts, as needed and service contract information shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Sprinkler System inventory, specification and checklists forms.

6.3.4 Service Records

Development Records

Copies of all records of all Sprinkler System preventive maintenance activities including all inspection checklists, service visits, annual testing and repairs etc will be filed in the annual Service Record Binder in the Fire Alarm Systems Section. The Manager shall maintain copies of all reports from the Sprinkler System Testing Contractor in the Service Record binder in chronological order and shall send the original to the Service Programs Coordinator immediately upon its receipt. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Service Programs Coordinator Records

Records of all service visits, including annual testing and repair calls shall be maintained by the service programs coordinator, along with invoices.

6.4 Smoke Detector Service Policy

6.4.1 Objective:

To insure that all smoke detectors in all common areas are operational at all times. Note: all hard-wired smoke detectors include a battery for back up purposes. Therefore, all new smoke detectors installed, even if the hard-wired type will require annual battery changes.

6.4.2 Scheduled Activities:

Daily/Weekly/As Needed

Custodian/Laborer/Groundskeeper Responsibilities:

The Custodian/Laborer/Groundskeeper shall note all missing or damaged battery operated smoke detectors during the course of day to day work and report any problems immediately to the Manager/Superintendent. All problems must be recorded on the weekly Building and Grounds inspections short-form. In the event that a battery needs replacing (as indicated by a "beep" from the unit) the Custodian/Laborer/Groundskeeper shall immediately replace the battery. Damaged device enclosures must also be noted.

Manager/Maintenance Superintendent Responsibilities:

The Manager/Maintenance Superintendent is responsible for issuing a work order and instructing a mechanic to replace all defective or missing battery smoke detectors immediately upon learning of the problem. The Manager/Maintenance Superintendent is responsible for keeping on hand adequate numbers of batteries and smoke detectors. Smoke detectors can be ordered from the BHA 120 Stock System. Batteries on hand for replacement should be checked for date code before being installed.

Quarterly

Manager/Maintenance Superintendent Responsibilities

The Manager is responsible for testing all battery-operated smoke detectors on each quarterly building and grounds inspection by activating the test button. The Manager may delegate this responsibility to the Laborer/Groundskeeper or Electrician, but shall be responsible for insuring that this is completed fully every quarter.

Annually

Custodian/Laborer/Groundskeeper Responsibilities:

Once every year, in October, the laborer/groundskeeper shall replace all batteries in all battery operated smoke detectors in common areas as a preventive maintenance measure. This shall also apply to batteries

in the new type of hard-wired smoke detectors that include a battery back up. Batteries in smoke detectors in apartments shall be changed at the time of the annual Living unit inspection.

6.4.3 Systems Inventory Information

A Smoke Detector Inventory and Specification sheet, including location of all devices, including information on battery or hard wired, and system connected or not connected and replacement part information shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master checklist for inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Smoke Detector inventory, specification and checklists forms.

6.4.4 Service Records

Copies of all records of all Smoke Detectors preventive maintenance activities including all inspection and service checklists, regular testing and repairs etc will be filed in the annual Service Record Binder in the Fire Alarm Systems Section. All defective smoke detectors shall be reported on the Building and Grounds Inspections [Weekly - Short and Quarterly - Long Forms] and LUI inspections. All replacement of batteries in common areas must be recorded on a checklist format using the smoke detector inventory/specification sheets and filed in the Service Record Binder.

Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

6.5 Smoke Hatch Inspection and Service Procedure

6.5.1 Objective:

To insure that the smoke hatch component of the fire alarm system is operating properly and is maintained in accordance with applicable ordinances and codes.

6.5.2 Scheduled Activities:

Daily/Weekly

Custodian/Laborer/Groundskeeper Responsibilities:

The Laborer/Groundskeeper shall visually inspect the smoke hatch for any noticeable problems, such as opened hatches, tampering with manual cords and/or vandalism. The Custodian/Laborer/Groundskeeper shall report any problems to the Manager/Maintenance Superintendent immediately. All problems must be recorded on the weekly Building & Grounds short-forms.

Manager/Maintenance Superintendent Responsibilities:

The Manager/Maintenance Superintendent shall report any problems with the smoke hatch or other fire alarm system components immediately upon being informed of the problem to the Service Programs Coordinator. The Manager/Maintenance Superintendent shall also check the pull cord and the hatch during

all weekly walk-through inspections. The Manager/Maintenance Superintendent shall report all resets to the Service Programs Coordinator immediately following each occurrence.

Quarterly

Manager Responsibilities:

The Manager shall coordinate all testing procedures related to smoke hatches, as part of any regular connected system inspection, through appropriate notification to residents and by assisting the contractor by having the Custodian/Laborer/Groundskeeper available during testing to allow entry into common area hallways as needed.

Annually / Every 2 years

Service Programs Coordinator Responsibilities:

The Service Programs Coordinator shall be responsible for bidding a service contract once every two years, or at such annual intervals as may be determined to be necessary. The Service Programs Coordinator shall be responsible for insuring that all maintenance over and above regular testing is necessary and for approving all expenditures of this type.

6.5.3 Systems Inventory Information

A Smoke Hatch Inventory and Specification sheet, including location and replacement part information shall be maintained in the Building Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include a master inspection and service checklist specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Smoke Hatch inventory, specification and checklists forms.

6.5.4 Service Records:

Development Records:

Copies of all records of all Smoke Hatch preventive maintenance activities including all inspection and service checklists, regular testing and repairs etc will be filed in the annual Service Record Binder in the Fire Alarm Systems Section. All defective smoke hatches shall be reported on the Building and Grounds Inspections [both the weekly short-form and the quarterly long-form].

Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

The Manager shall maintain copies of all reports from the fire alarm testing contractor in the Service Records binder, and shall send the originals to the Service Programs Coordinator immediately upon receipt.

Service Programs Coordinator Records:

The Service Programs Coordinator shall be responsible for maintaining central records of all service and testing.

Chapter 7 Generators

7.1 Objective:

To ensure a continuous, efficient and reliable source of stand-by electrical energy through regular maintenance and service of the emergency generator.

7.2 Scheduled Activities:

Weekly

Manager/Maintenance Super/Electrician/Resident Custodian Responsibilities:

The Manager/Maintenance Superintendent is responsible for insuring that the Electrician performs a weekly inspection of the emergency generator and performs the tasks detailed on the Emergency Generator Weekly Service Activity Report. The Electrician shall complete the report, sign it and give it to the Maintenance Superintendent each week upon completion. Resident Custodians shall complete this checklist at Elderly/Disabled developments. See S: FamEld Drive, SOP Master Building Systems Appendices to obtain a master copy of Emergency Generator Weekly Service Activity Report.

Quarterly

Service Contractor Responsibilities

The service contractor shall be responsible for performing quarterly inspections and service as detailed on the Emergency Generator Inspection and Service Report. See S: FamEld Drive, SOP Master Building Systems Appendices to obtain a master copy of Emergency Generator Inspection and Service Report

Annually

Generator Service Program Coordinator Responsibilities:

The Service Program Coordinator is responsible for obtaining quotes and issuing a purchase order on an annual basis to a qualified contractor for quarterly and annual service to the emergency generator and for insuring that the contractor completes all required activities on time.

The Generator Service Program Coordinator is responsible for obtaining quotes and issuing a purchase order on an annual basis to a qualified contractor for annual service and testing of the Automatic Transfer Switch.

Generator Service Contractor Responsibilities

At one quarterly service visit each year, the Generator service contractor shall complete all of the annually required tasks as indicated on the Emergency Generator Inspection and Service Report.

Manager Responsibilities

The manager shall arrange to have the fuel tank topped off at least once per year.

As Needed

Manager

The Manager shall be responsible for obtaining quotes and issuing purchase orders for repairs required to the generator which is above and beyond the scope of the annual service contract. The generator should be re-fueled after each use in an emergency condition and topped off on an annual basis.

Service Program Coordinator

The Service Program Coordinator shall be responsible for reviewing repair or replacement decisions in consultation with the manager and assisting the manager in determining actions to be taken.

7.3 Systems Inventory Information

A Generator Inventory and Specification sheet, including location and spare/replacement part information, fuel information, regular run time shall be maintained in the Systems Inventory Book and updated as needed. A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also a master checklist of inspections and services specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Generator inventory, specification and checklists forms.

7.4 Service Records

Development Records:

Copies of all records of all Generator preventive maintenance activities including all inspection checklists, service visits, regular testing and repairs etc will be filed in the annual Service Record Binder in the Fire Alarm Systems Section. The Emergency Generator Weekly Service Activity Report is to be completed by the Superintendent and Electrician or Resident Custodian (for elderly developments) and submitted to the development Manager. All copies shall be maintained in the Service Record Binder.

The Emergency Generator Inspection and Service Reports are completed by the Generator service contractor at the time of each inspection and are submitted to the development Manager upon completion of the service. The contractor may use its own company form. These reports shall be signed by the contractor's service representative and maintained in the service record binder. The original shall be sent to the Service Programs Coordinator immediately upon receipt.

Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Service Programs Coordinator:

The Service Programs Coordinator shall be responsible for maintaining central records of all service and testing.

Chapter 8 Heating Systems

8.1 Introduction to Heating System Maintenance

Maintenance of heating systems is among the most important maintenance to be performed within the Preventive Maintenance Plan. Heating systems including the central heating plants or the decentralized boiler rooms, the distribution systems, and heating fixtures and controls inside the units require consistent and regular maintenance to serve out their useful life and provide the very basic service of heat and hot water to all residents of our developments. In many locations, significant capital investments have been made to the heating systems throughout the City, and a number of other projects are in the planning, design, or construction stages. It is crucial that we protect this investment.

Managers, Maintenance Superintendents, Heating Systems Coordinator and Inspector, Burner Technicians, Firemen, and Steamfitter's play very important roles.

It is the primary responsibility of the Fireman to perform daily monitoring and maintenance functions to the central heating plants and/or decentralized heating boiler rooms as specified in the union contract and the primary responsibility of the Heating System Coordinator and Inspector to perform more complex tasks, inspect the work of the Firemen and Burner Technicians and make recommendations for replacement and repair of various systems and components. The Heating Systems Coordinator and Inspector will be responsible for monitoring and managing work performed by outside contractors. The Heating Systems Coordinator will retain overall responsibility for overseeing central heating plant and decentralized heating boiler room work.

Because of physical proximity, and in some cases the interrelated system components, of domestic hot water systems at most of the developments supported by the heating system, the central domestic hot water system is covered in this section.

Although preventive maintenance is not performed on electric heating systems (except as part of apartment and buildings and grounds inspections) we have included a short section on the maintenance of stock for electrically heated developments due to the extreme important of having stock on hand for heating repairs in the event of an emergency.

The heating system with forced warm air and heat pumps applies to the building at 52 Chauncy Street in Boston only.

It is extremely important that the material in this section is accurately completed and that the procedures and policies called for are strictly adhered to for the continued proper operation and longevity of the systems across the City.

8.2 Central Plants & Decentralized Boiler Rooms

8.2.1 Objective

To insure the continuous operation of all heating systems including equipment, controls, and the central domestic hot water components, to prolong the life of all equipment, components, and controls related to efficient heat generation and distribution, and to create and maintain a healthy indoor environment.

8.2.2 Scheduled Activities

Daily

Fireman Responsibilities:

The fireman is responsible for daily monitoring systems operations, performing routine maintenance services to central heating plants and/or decentralized boiler rooms as required, recording systems operational data and fuel consumption/ordering/delivery data, identifying the system or components' deficiencies if any and reporting them to Manager and/or Maintenance Superintendent, Heating System Coordinator or Inspector immediately. The fireman is responsible for filling out the *Boiler Room Service Activity Report* daily and maintaining a daily log of central plant or decentralized boiler room's activities in the logbook, which shall be located inside the boiler room. The specific duties to be performed at each site as called out in the union contract are detailed on daily *Service Activity Reports* specific to the particular plant or boiler room being serviced, including regular disposal of rubbish and periodic sweeping, washing, and painting of floors. The daily *Service Activity Report* shall be submitted monthly to the Heating System Coordinator/ Inspector and contain a record of all activities performed. The fuel oil ordering/delivery data/slips shall be submitted weekly to the Manager or Maintenance Superintendent. These slips must be forwarded to the Accounts Payable Department in a timely manner [Refer to section 30.13].

Boiler Room Service Activity reports specific to the boiler room at your Development can be obtained on the Fam/Eld S:Drive, in the *SOP Profile and Building Systems by Development* folder. This folder is organized into sub-folders for each development. Each Development sub-folder is further divided into folders for each system/component/structure subject to preventive maintenance. The Heating systems information sheets/reports etc, specific to the systems located at your Development can be obtained from the Heating sub-folder within your Development folder.

In the event of very urgent or emergency problems, and the unavailability of the development staff and Heating System Coordinator/Inspector, the fireman shall report the problems directly to the Emergency Response Service. The ERS staff or the dispatcher who answers the call after regulator hours will relay the message to the BHA Duty Officer.

Maintenance Fireman or Fireman during Off-Heating Season Responsibilities:

Spare fireman during heating season shall report to BHA Heating Dept for their daily assignments. Based on the fireman shift coverage, the spare fireman may be assigned to a regular shift covering a specific area if the regular fireman is absent, then he shall follow the procedures specified above. The spare firemen or the maintenance firemen during off-heating season will be assigned to a specific heating plant or boiler room for maintenance and cleaning work daily as instructed by the Heating System Coordinator or Heating System Inspector.

All firemen are responsible to obtain, from the BHA Central Store, maintain, and use the personal protection safety equipment based on the work they are assigned. They are responsible to follow all the regulations and rules outlined in the BHA Employee Safety and Loss Control Handbook and MSDS Binder.

Burner Technicians Responsibilities:

Burner Technicians are responsible to perform daily boiler/burner or system components' repair, adjustment, replacement, or burners' cleaning, fine-tuning, and start-up work as assigned by the Heating System Coordinator and Inspector, or respond to the service calls during evening shift or over weekend as directed by the ERS.

Weekly

Heating Systems Coordinator/Inspector Responsibilities:

The Heating Systems Coordinator or Inspector shall perform no less than a weekly inspection of all central boiler plants and boiler rooms covered by the firemen and shall instruct fireman of additional maintenance at that time in accordance with the development maintenance checklist (see appendix).

The Heating Systems Coordinator has overall responsibilities for insuring proper operation of the heating boilers and major components in the central heating plants and decentralized boiler rooms, which are monitored and covered by the firemen on daily basis, and the completion of all required maintenance, repair, and the replacement work performed on them. The Heating System Coordinator or Inspector shall submit purchase requisitions for service work that require to be carried out by contractors from outside the BHA to the Building System Maintenance Director for approval.

Manager/Maintenance Superintendent Responsibilities:

The Manager/Maintenance Superintendent shall inspect the central heating plant or the boiler room on at least a weekly basis as part of the Building and Grounds Inspection. The Manager/Maintenance Superintendent shall observe heating plant and boiler room for performance of Fireman's areas for cleanliness and proper lighting. At this time, the Manager/Maintenance Superintendent shall enter in the Boiler Room logbook an entry indicating his or her reason for being in the boiler room. Each heating plant or boiler room must have a boiler room log book.

The Manager/Maintenance Superintendent shall inspect the distribution piping, fittings, and valves in the building basement for any sign of leaks or malfunctions. All deficiencies found during any inspection shall be reported to the Heating Systems Coordinator and/or transferred to work orders for correction as either emergency or Building and Grounds priorities

Quarterly

Manager/Maintenance Superintendent Responsibilities:

To conduct a formal inspection of the heating plant and boiler room during the quarterly Building and Grounds Inspections. The Manager /Maintenance Superintendent shall inspect all areas for cleanliness and proper lighting. The Manager /Maintenance Superintendent shall inspect distribution piping, fittings, and valves in the building basement for any sign of leaks or malfunctions. Check components for rust/corrosion. All deficiencies found during any inspection shall be reported to the Heating Systems Coordinator and/or transferred to work orders for correction as either emergency or Building and Grounds priorities

At this time, the Manager/Maintenance Superintendent shall enter in the Boiler Room logbook an entry indicating his or her reason for being in the boiler room.

Annually

Heating Systems Coordinator/Inspector Responsibilities:

Each year the Heating Systems Coordinator shall schedule boiler cleanings and arrange for jurisdictional inspections at all developments. These boiler cleanings shall include all the work listed on the "Boiler Cleaning and State Mandated Inspection Scope of Services" attached. All cleanings and inspections shall take place between the period of June 15 and September 15 of each year. The Heating System Coordinator or Inspector shall submit purchase requisitions for annual services and cleaning out some of the boilers/heaters and components that require to be carried out by factory-trained technicians to the Building System Maintenance Director for approval.

Each year, the Heating Systems Coordinator shall arrange for the Burner Technicians to service and perform general preventive maintenance on all central heating plants' boilers and related major components such as boiler feed pumps, feed valves, ID fans, and controls. This service shall be performed in compliance with the "Burner Service Scope of Services" attached. All service shall be completed each year between June 15 and September 15. The Heating System Coordinator or Inspector shall submit purchase requisitions for obtaining the new complete components or replacement kits if the replacement of the components or kits is needed to the Building System Maintenance Director for approval.

The Heating Systems Coordinator and Inspector shall develop a list of summer maintenance and replacement projects for the central heating plants or decentralized boiler rooms, the distribution system components, and the controls. They shall arrange to purchase appropriate stock, plan and schedule the work to be performed by the fireman, burner technician, the steamfitter and electrician. The Heating Systems Coordinator and Inspector shall work with the Manager or Maintenance Superintendent to coordinate all such projects, including system shut-down and apartment access for apartment work etc.

As needed

Heating Systems Coordinator/Inspector Responsibilities:

The Heating Systems Coordinator and Inspector shall report all repairs required in the boiler rooms or central heating plants such as plumbing and sewer leaks, lighting, access, alarm systems etc.; and the leaks on the distribution system in the basement space to the Maintenance Superintendent, as needed, especially repairs requiring assistance from BHA trade persons.

The Heating Systems Coordinator and Inspector shall document and relay the information to the Manager or Maintenance Superintendent regarding all the work performed on the heating systems by the steamfitter and electrician so it can be recorded on the development work order system.

Manager Responsibilities

The Manager shall work with the Maintenance Superintendent and the Heating System Coordinator and Inspector as needed to insure that maintenance is performed and repairs are made to the heating system including the heating plant/boiler room, distribution system, controls, and heating fixtures inside the unit. The Manager shall make all decisions concerning major repairs to heating distribution systems in the basement, underground, and inside the residential units. The Manager shall approve all purchase orders for stock, repair or replacement work, and annual preventive maintenance service as listed above.

The Manager has overall responsibilities for insuring that all heating plant and boiler rooms maintenance and repair is completed properly and on time to insure service delivery to residents.

The Manager with the assistance of the Heating Systems Coordinator and Inspector shall work with the Project Manager or Architect to determine priorities of the needed heating systems improvements, select designers, develop designs and manage construction contracts for all major repair and replacement of heating systems and components.

8.2.3 System Inventory Information:

The Development Heating System Inventory & Specification sheet shall contain detailed specifications of all boilers, burners, controls, major components and controls on the distribution piping, heating fixture and controls inside the unit, and auxiliary equipment and instrument including major spare parts and shall be maintained in the Building Systems Inventory Book and updated as needed. The Inventory shall also include all daily, weekly, monthly, and annual service checklist forms specific to the equipment & instrument at the site. The inventory will also include location information and a site map can be used to supplement this.

Central Heating Plant and Decentralized Heating Boiler Room Information Sheets shall be provided by the Heating Maintenance Unit for all Family Developments and can be found in the S: FamEld Drive, *SOP Profile and Building Systems by Development* folder. This folder is organized into sub-folders for each development. Each Development sub-folder is further divided into folders for each system/component/structure subject to preventive maintenance. The Heating systems information sheets, specific to the systems located at your Development can be obtained from the Heating sub-folder within your Development folder.

See S: FamEld Drive, *SOP Master Building Systems Appendices* for sample master Central Heating Plant and Decentralized Heating Boiler Room inventory, specification and checklists forms if the Heating Maintenance Unit does not have this information for the heating system at your Development

8.2.4 Service Records

Development Records:

The Fireman's Daily Checklist shall be submitted weekly to the Manager or Maintenance Superintendent and the original maintained in the Service Record Book, or in separate file folders in chronological order.

The central plants and boiler rooms' logbooks shall be submitted annually to the Manager or Maintenance Superintendent and maintained in the development management office.

The fuel oil delivery slips shall be submitted weekly by the fireman to the Manager or Maintenance Superintendent. These slips must be forwarded to the Accounts Payable Department in a timely manner [Refer to section 30.13]

The Heating System Inspector's weekly Inspection and Service Report will be submitted to the Heating System Coordinator and copied to the development Manager for filing in the Service Records Book.

Records of all preventive maintenance (P) work orders completed by the steam fitter, plumber, and electrician shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Heating Department Records

All records of service and repairs performed including annual boiler cleanings and preventive maintenance service as well as other contracted repairs shall be maintained in the Heating Dept. by the Heating System Coordinator and Inspector. Copies shall be maintained in the Service Record Binder.

All records of service and repairs performed including annual boiler cleanings and preventive maintenance by BHA Firemen and/or Burner Technicians shall be maintained in the Heating Dept. by the Heating System Coordinator and Inspector. Copies shall be maintained in the Service Record Binder.

8.3 Boiler Cleaning and Jurisdictional Inspection

Boiler cleanings shall be performed annually by qualified contractors or development Firemen and Burner Technicians in accordance with the scope of services listed below. Following the cleaning, and prior to closing the boiler, the Heating Systems Coordinator and Inspector shall arrange for an insurance inspection for the boilers that are subject to annual state inspection according to state code and regulations. The following scope of services shall be adhered to:

Prior to Calling Insurance Company's Boiler Inspector:

1. All firesides are to be properly brushed and vacuumed. This includes tubes in the fire tube boilers and gas passes in cast iron sectional boilers.
2. All fireboxes are to be cleaned and vacuumed.
3. All hand hole plates and manhole covers are to be removed and surface cleaned.
4. All controls and plugs are to be opened and flushed out.
5. The area around the boiler including the boiler itself (top, etc.) is to be cleaned and free of soot.

Prior to and During the Inspection:

1. Water shall be drawn off and the waterside thoroughly washed out.

2. Manhole and hand hole plates, washout plugs, as well as inspection plugs in water column connections shall be removed as required by the inspector. The furnace and combustion chambers shall be cooled and thoroughly cleaned.
3. Insulation and brickwork shall be removed if required by the inspector in order to determine the condition of the boiler, headers, furnace, supports or other parts.
4. The pressure gauge shall be removed for testing if required by the Inspector.
5. Any leakage of steam or hot water into the boiler shall be prevented by disconnecting the pipe or valve at the most convenient point or at any appropriate means approved by the inspector.
6. Before opening the manhole or manholes and entering any part of a boiler that is connected to a common header with any other boilers, the required steam or water system valves or cocks between the two closed stop valves opened. The feed valves must be closed, tagged and preferably padlocked, and drain valves or cocks between the two valves opened. After draining the boiler, the blow-off valves shall be closed, tagged, and preferably padlocked. Blow-off lines, where practicable, shall be disconnected between pressure parts and valves. All drains and vent lines shall be opened.

After the Inspection:

- The original Boiler Inspection Certificates when issued shall be maintained at BHA Heating Dept., one copy set shall be displayed in the boiler plant or boiler room, and another set shall be kept in file by the development management.
- If the boiler fails to pass the inspection, the Heating Systems Coordinator/Inspector and the development staff shall work together to identify the reason for failure on the inspection, address the deficiencies if any, and arrange re-inspections if needed until the Boiler Inspection Certificate is obtained.
- Heating Systems Coordinator/Inspector shall inform the BHA Risk Management the inspection problem and result whenever it becomes available.

8.4 Annual Preventive Maintenance and Start up Services – Gas Fired Boiler Systems

For gas-fired boiler systems, a qualified service contractor or qualified BHA service personnel shall perform annual preventive maintenance and start up services in accordance with the scope of services listed below.

Scope of Services

1. Report upon arrival to BHA Representative when required.
2. Inspect and report on conditions of refractory, exhaust hood, and heat exchangers if applied.
3. Drain and recharge expansion tanks for hydronic heating system.
4. Inspect all boiler controls and safeties on individual boiler and on the common header. Inspect the combustion air in-take fan and/or exhaust louver opening for proper operation.
5. Inspect ignition assembly replace electrode if needed, inspect pilot thermocouples, scanner, and replace them if needed.
6. Tighten electrical connections to individual controls, pump, valve, and inside the control panel.
7. Open and clean boiler pump's controller, low water cutoffs, and automatic feeder if applied.
8. Test all boilers, inspect the gas trains and adjust gas manifold pressure, and adjust fuel-air ratio and check sequences of operations. Check the exhaust damper opening and draft inducer operation if applied.
9. Test the prove function of pilot status, limits, flow switches, combustion air intake and/or exhaust louver opening, and operating controls.
10. Adjust and calibrate indoor/outdoor temperature settings and burner sequencing control.
11. Remove gas manifold and gas header.
12. Remove pilot assemblies and burners.
13. Clean gas train orifice opening, pilot assemblies, and burners.
14. Reassemble burner and gas manifolds (replace burner gaskets).

15. Perform efficiency tests on each boiler and provide a written test report to BHA and tag system with test results.
16. Submit report to BHA on boiler condition and suggest the needed repairs as required.

8.5 Annual Preventive Maintenance and Start up Services – Oil Fired Boiler Systems

Annual preventive maintenance and start up services shall be performed on all oil-fired boiler systems by a qualified service contractor or BHA Fireman and Burner Technician in accordance with the scope of services listed below. This service shall be performed by September 15 of each year.

Scope of Services

1. Report in with BHA representative
2. Record and report abnormal conditions, measurements taken etc.
3. Inspect all burner linkages for proper installation and/or damage
4. Test primary and secondary shut off dampers for tight seal.
5. Inspect linkages for ease of operation and lubricate as required.
6. Verify operation of primary and secondary air dampers and inspect for cleanliness

High and Low Pressure Air Atomizing Oil Burner Only

1. Remove and replace nozzles
2. Inspect condition of, and replace the air filter element
3. Inspect installation of mounting points and tighten all major points

Atomizing Supply Air Compressor

1. Lubricate motor bearings
2. Lubricate compressor bearings
3. Inspect pull grooves and belts for alignment, wear and tension, and replace belt (s)
4. Verify operation of air compressor
5. Inspect and correct for unusual noises, vibrations, odors, etc
6. Inspect motor windings for dirt buildup and clean
7. Inspect starter for signs of wear, overheating, arcing, burns, etc.
8. Lubricate coupling
9. Visually inspect coupling for abnormal conditions
10. Change oil and oil filter
11. Change air filter

Rotary Cup Oil Burner (only)

1. Clean, inspect and lubricate all mechanical linkages and couplings
2. Lubricate all bearings and gears
3. Clean atomizing cup

Mechanical Atomizing Oil Burner (Only)

1. Remove, clean and inspect nozzles

Force or Induced Draft Blower

2. Inspection condition of and clean blowers and air passages
3. Inspect installation of mounting points and tighten all major points
4. Visually inspect coupling for abnormal conditions
5. Lubricate coupling
6. Inspect motor windings for dirt build up.
7. Lubricate motor bearings
8. Inspect for unusual noises, vibrations, odors etc.

9. Lubricate blower bearings
10. Inspect pulley grooves and belts for alignment, wear and tension (replace belts)
11. Inspect starter for signs of wear, overheating, arcing, burns, etc.

Fuel System and Oil Pumps

1. Inspect area around pump seals for seal leakage
2. Inspect installation of mounting points and tighten all major points
3. Inspect starter for signs of wear, overheating, arcing, burns, etc.
4. Verify operation and setting of oil pressure regulator
5. Replace cartridge type oil filter and gasket if necessary
6. Inspect for unusual noises, vibrations, odors, etc.
7. Lubricate pump bearings
8. Lubricate coupling
9. Inspect and Lubricate motors
10. Inspect motor windings for dirt build up
11. Visually inspect accessible fuel delivery system for leaks.

Pre-heater

1. Verify operation of oil pre-heater system
2. Verify accuracy of pre-heater pressure and temp gauges - replace if defective

Pilot

1. Leak test pilot gas train (soap test)* if applied
2. Inspect ignition assembly replace electrode and ignition wiring including raja clips
3. Inspect pilot orifice and clean
4. Inspect and set spark gap

Flame safeguard

1. Clean flame detectors
2. Test flame detention device
3. Test minimum pilot test
4. Test pilot flame failure protection
5. Test main flame failure protection
6. Perform combustion test and adjust air mixture as necessary (CO2 Test)
7. Test for detection with hot combustion chamber

Operational Test

1. Test low oil pressure safety circuit
2. Test low oil temperature safety circuit
3. Verify operation of operating controls
4. Inspect flame condition
5. Test atomizing air pressure supervisory switch
6. Test all special safety devices
7. Verify operation of high operating limit controls

8.6 Centralized Domestic Hot Water Systems

8.6.1 Objective:

To insure the continuous operation of the centralized domestic hot water heating system, for proper delivery of service to the residents according to state plumbing and sanitary codes.

8.6.2 Scheduled Activities

Daily

Fireman Responsibilities:

The Fireman is responsible for performing daily inspections and service of the domestic hot water system. The Fireman shall maintain in the daily log of boiler room activities, including the temperature of the heated water stored in the tanks and at the outlet of the tempering valve if available, or the water temperature just coming out of the instantaneous hot water heaters when applied. The Fireman shall inspect the heating (either steam or heating hot water) control valve, city water feed, and domestic hot water re-circulating pump for proper operation. The Fireman shall visual inspect any sign of leaks around the system and report any deficiency to Heating the Manager and System Coordinator/Inspector. This daily checklist as part of the heating system shall be submitted weekly to the Manager and the Heating Dept. accordingly.

Weekly

Fireman Responsibilities

Oil Fired developments during off-heating season: to insure the continued operation of the central heating system, weekly, the Fireman shall dip the oil tank and take a reading. The Fireman shall log this reading to the boiler plant logbook and copy it to Maintenance Superintendent who will order oil as needed. The Fireman or Maintenance Superintendent shall be responsible for obtaining delivery slips from the deliverer and giving them to the Manager for immediate submission to the Accounts Payable Coordinator. Please note: during the heating season, tank should be checked daily or at more frequent intervals. Oil may be ordered any working day.

Manager Responsibilities

The Manager shall inspect the boiler room on at least at weekly basis as part of the Building and Grounds Inspection. Manager shall observe boiler room for performance of Fireman's areas for cleanliness and proper lighting, as well as check the daily log for entries on DHW temperature readings. At this time, the Manager should log an entry in the Boiler Room logbook of their visit.

As needed

Fireman Responsibilities

The Fireman shall immediately report any problems to the Manager and/or Maintenance Superintendent, and the Heating Systems Coordinator/Inspector. In the event of very urgent or emergency problems, and the unavailability of the development staff, the Fireman shall report the problems directly to the ERS; the ERS staff or the dispatcher who answers the call after regulator hours will relay the message to the BHA Duty Officer.

Manager Responsibilities

The Manager shall inspect the distribution piping, fittings, and valves in the building basement for any sign of leaks or malfunctions.

The Manager shall work with the Heating System Coordinator and Inspector as needed to insure that maintenance is performed and repairs are made to the domestic hot system including the hot water storage tanks or instantaneous hot water heaters, heating coils, control valves, tempering valves, and the re-circulating pump etc.

The Manager shall work with the Maintenance Superintendent to insure that the storage tanks are drained and cleaned in summer, the maintenance is performed and repairs are made to the distribution piping and

controls, and plumbing fixtures such as mixing valves inside the unit. The Manager shall make all decisions concerning major repairs to the domestic hot water distribution systems in the basement, underground, and inside the residential units. The Manager shall approve all purchase orders for stock, repair or replacement work, and annual preventive maintenance service as listed above.

The Manager has overall responsibilities for insuring that all the domestic hot water system maintenance and repair is completed properly and on time to insure service delivery to residents.

The Manager, with the assistance of the Heating Systems Coordinator and Inspector will work with the Project Manager or Architect to determine priorities of needed domestic hot water system improvements, select designers, develop designs and manage construction contracts for all major repair and replacement of domestic hot water systems and components.

8.6.3 Systems Inventory Information

The Development Centralized Domestic Hot Water Inventory & Specification sheet shall contain detailed specifications of the system's components including spare parts and shall be maintained in the Systems Inventory Book and updated as needed. The Inventory shall also include all daily; weekly, scheduled service checklist forms specific to the equipment & instrument at the site.

Centralized Domestic Hot Water Information Sheets shall be provided by the Heating Maintenance Unit for Family Developments and can be found in the S: FamEld Drive, *SOP Profile and Building Systems by Development* folder. This folder is organized into sub-folders for each development. Each Development sub-folder is further divided into folders for each system/component/structure subject to preventive maintenance. The Centralized Domestic Hot Water information sheets, specific to the systems located at your Development can be obtained from the Heating sub-folder within your Development folder.

See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Centralized Domestic Hot Water inventory, specification and checklists forms if the Heating Maintenance Unit does not have this information specific to your Development

8.6.4 Service Records

Copies of all records of all Centralized Domestic Hot Water Systems preventive maintenance activities including all inspection checklists, services, regular testing and repairs etc will be filed in the annual Service Record Binder in the Heating Section.

Records of all preventive maintenance (P) work shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

8.7 Electrically-Heated Developments

8.7.1 Objective

To supply resident with adequate heat and insure that parts and supplies are on hand to repair electric heating in the event of failure.

8.7.2 Scheduled Activities

Monthly/As Needed

Manager/Maintenance Superintendent Responsibilities

The Manager/Maintenance Superintendent is responsible for insuring that all electric heating components are in stock at all times. In particular, Managers should insure that the development is well stocked prior to the start of each heating season (September 15 of each year). Components include electric heat elements for baseboards (various sizes) and line voltage thermostats.

Annually

Manager's Responsibilities:

During the course of Living Unit Inspections, check all thermostats and heating units to insure that they are working properly. It will not be possible to check heating units for operation on hot days; however, this procedure should be followed on any day that the temperature allows. Heating units with broken or missing covers can create a fire hazard and should be replaced or repaired immediately.

8.7.3 Systems Inventory Information

An Electrical Heating Inventory and Specification sheet, including location and replacement/spare part information, shall be maintained in the Systems Inventory Book and updated as needed.

Specification sheets should include all sizes and types of electric baseboard units with notations as to where each size/type is used (i.e. room of apartment). A site plan may be used to supplement this information and will be maintained in the Systems Inventory book. The Inventory shall also include all scheduled service checklist forms specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Electrical Heating inventory, specification and checklists forms.

8.7.4 Service Records

Copies of all records of all Electrical Heating systems preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Heating Systems Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

8.8 Fan Coil Unit inventory and Maintenance

8.8.1 Objective

To maintain all fan coil units in good working condition.

8.8.2 Scheduled Activities

Annually

Maintenance Superintendent/Manager/Electrician Responsibilities:

On an annual basis, during the off-heating season between May 15 and September 15, the in-house electrician shall check each fan coil unit following the procedure described below. It is the manager/maintenance superintendent's responsibility to schedule this work. Additionally, the filters shall be changed at this time.

Maintenance Procedure:

- Inspect the unit for any signs of leaking and unusual odors
- Remove return grille and replace filter
- Clean grille if required
- Inspect the fan and clean
- Inspect the drain pan and clean.
- Check the condensate drain line to insure it is open and clear.

In elderly buildings changing filters may be assigned to the resident custodian. At this time he/she will check the general operation of the system, and if the motor is malfunctioning, the Electrician shall repair or replace as needed.

8.8.3 Systems Inventory Information

The Fan Coil Unit Inventory & Specification sheet shall contain detailed specifications of all units including replacement part information as necessary and shall be maintained in the Systems Inventory Book and updated as needed. The Inventory shall also include all scheduled service checklist forms specific to the equipment at the site, as applicable. The inventory will also include location information and a site map can be used to supplement this.

For Family Developments - Fan Coil Unit Information Sheets shall be provided by the Heating Maintenance Unit and can be found in the S: FamEld Drive, *SOP Profile and Building Systems by Development* folder. This folder is organized into sub-folders for each development. Each Development sub-folder is further divided into folders for each system/component/structure subject to preventive maintenance. The Fan Coil Unit Information Sheets, specific to the systems located at your Development can be obtained from the Heating sub-folder within your Development folder.

Elderly developments with fan coil units (Bellflower and Roslyn) need similar information. A hard copy should be kept in the Systems Inventory Binder. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Fan Coil Unit inventory, specification and checklists forms

8.8.4 Service Records

Copies of all records of all Fan Coil Units preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Heating Systems Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

8.9 Condensate Return Pumps

8.9.1 Objective

To insure the continuous operation of all condensate return pumps through regular inspection and service, thereby insuring appropriate heat circulation, minimization of loss of energy and save water.

8.9.2 Scheduled Activities

Weekly

Steam fitter Responsibilities:

During the heating season, the Steamfitter shall complete a weekly inspection of all condensate return pumps using the Condensate Return Pump checklist. Any failure of a pump shall be immediately reported to the Maintenance Superintendent and work orders issued as appropriate to make all necessary repairs.

Each weekly inspection shall include:

1. Checking that the control (float switch) is in the automatic position
2. Watching the unit run through at least one complete cycle to check for proper operation
3. Checking for steam or water leaks, unusual odors or sounds.

Monthly

Maintenance Superintendent Responsibilities:

The Maintenance Superintendent shall accompany the Steamfitter on inspections at least once per month and note any problems during their walk-through to be addressed as part of routine maintenance or preventive maintenance.

8.9.3 Systems Inventory Information

The Condensate Return Pumps Inventory & Specification sheet shall contain detailed specifications of all units including replacement part information as necessary and shall be maintained in the Systems Inventory Book and updated as needed. The Inventory shall also include all scheduled service checklist forms specific to the equipment at the site, as applicable. The inventory will also include location information and a site map can be used to supplement this. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Condensate Return Pumps inventory, specification and checklists forms.

8.9.4 Service Records

Copies of all records of all Condensate Return Pumps preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Heating Systems Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

8.10 Steam Trap Cyclical Replacement Program

8.10.1 Objective

To replace every steam trap on a five-year cycle during the off-heating season to insure the efficient and quite delivery of steam heat. Steam traps have a useful life of no more than 8 years, but usually less. This program is intended to replace traps prior to failure.

8.10.2 Scheduled Activities

One Time

Manager/Maintenance Superintendent Responsibilities:

As a start up activity, where this does not exist¹, each Manager/Maintenance Superintendent shall supervise the Steamfitter in the completion of a steam trap survey covering the entire development. The Manager/Maintenance Superintendent shall request the assistance of the Heating Systems Coordinator or Inspector in carrying out this task if required.

The purpose of the survey shall be to compile information on the number, size, type, and location of all development steam traps. As a general matter, in most developments, apartment steam traps are located at each heating unit and a survey of a representative sample of traps will be sufficient. All basements, boiler rooms, and other common area spaces will have to be specifically surveyed to identify each steam trap separately.

Following the survey, the Manager/Maintenance Superintendent shall develop a schedule for replacement of 20% of all steam traps each year. In general, this replacement program will begin in the common areas of the development, as the largest steam traps will be found in these spaces. However, if these have been recently replaced, the Manager/Maintenance Superintendent may decide to start in apartments.

The schedule shall reflect replacement of all steam traps in a five-year period starting with common areas steam traps in year one and one quarter of all apartments in year 2, 3, 4 and 5. . Once one cycle has been completed, the cycle will begin again.

Annually

Manager/Maintenance Superintendent Responsibilities:

Each year the Manager shall order adequate steam traps for the replacement cycle that will occur over that summer. Since some traps will be rebuilt each year, the Manager will determine the number of new traps which need to be purchased based on the stock of rebuilt traps available. For the first year, all traps will have to be purchased.

The Maintenance Superintendent shall develop a daily schedule of work to replace steam traps during the summer months. Work may begin prior to June 15 on warm days when the heating plant can be shut down. Work orders shall be created on a daily basis, using the priority code "P" to account for the steam fitters time.

The Manager shall coordinate the activity in apartments through notices to residents of the work being performed and 48-hour notices to enter.

Steam fitter Responsibilities:

The Steamfitter shall systematically replace all steam traps as scheduled. Old steam traps shall be removed and stored in an appropriate maintenance shop area for refitting during winter months. These refitted traps shall be used as spares and for the next annual cycle of steam trap replacement.

8.10.3 Systems Inventory Information

The Steam Trap Inventory & Specification sheet must include information on type; size of all traps with summary information for apartments as well as replacement part information and shall be maintained in the Systems Inventory Book and updated as needed. The Inventory shall also include all checklists for replacement dates and this information updated as work is completed. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Steam Trap inventory, specification and checklists forms. A schedule for regular replacement of traps on a five-year cycle shall be included.

¹ This program began in 1999 and this work should be complete.

8.10.4 Service Records

Copies of all records of all Steam Trap preventive maintenance activities will be filed in the annual Service Record Binder in the Heating System Section. Each year, upon replacement of traps, the appropriate columns of the sheets shall be completed and included in Service Record Binder.

Records of all preventive maintenance (P) work orders [e.g. for all interim replacement of traps] shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

Finally notations of all interim replacement of traps shall be included on the Interim Trap Replacement log for reference when performing cyclical replacement activities so as not to duplicate work unnecessarily.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

8.11 System Temperature Controls Measures & Maintenance

8.11.1 Objective:

To insure continued, efficient, and reliable operation of a heating system, by maintaining functional temperature controls on boiler sequence controls, heating loop control valves, heating zone valves inside the building, self-contained control valve or manual inlet valve on heating fixture inside the apartment, and unit thermostat properly at all times.

8.11.2 Scheduled Activities

Twice Yearly

Manager/Maintenance Superintendent Responsibilities:

The development Manager and Maintenance Superintendent is responsible for the proper operation of heating zone valves inside the building, self-contained control valve or manual inlet valve on heating fixture inside the apartment, and unit thermostat.

Twice annually, in June and November, the Superintendent shall coordinate to have the zone valves inspected and serviced as necessary by BHA Mechanic or qualified contractor. Additionally, the Superintendent shall have at least one extra zone valve for each type/size on site, in case of an emergency replacement is needed.

Steam fitter/Contractor Responsibilities:

During the scheduled inspection and service period, the Steamfitter or contractor shall perform all necessary general maintenance to the zone valves including, but not limited to: inspecting valves for any visual defects and foreign objects, lubricating the valves, manually operating the valves (if applicable), "jumping" the connections to check the operation of the valves (if applicable). Any valve that is found to be defective must be replaced at this time.

As Needed

Heating Systems Coordinator/Inspector Responsibilities:

BHA Heating Dept. is responsible for the proper operation of boiler sequence controls and/or pump controls, and heating loop control valves inside the central boiler plant or boiler room.

The Heating System Coordinator & Inspector shall check the boiler controls and heating loop control valves during their regular boiler plant inspection for proper operation. Have the Burner Technicians check the outside temperature air sensors and replace them when needed, and fine-tune the boiler controls and set-points.

During their regular inspection, the Heating System Coordinator/Inspector shall visually inspect zone valves for operation and both external and internal leakage.

8.11.3 Systems Inventory Information

Systems Temperature Controls Inventory & Specification sheet must include information on all zone valves. Self-contained control valve or manual inlet on heating fixture inside the apartment, and unit thermostat as well as areas/locations and replacement part information and shall be maintained in the Systems Inventory Book and updated as needed. The Inventory shall also include all scheduled service checklist forms specific to the equipment at the site, as applicable. A site map can be used to supplement the location information if necessary. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Systems Temperature Controls inventory, specification and checklists forms

8.11.4 Service Records

Copies of all records of all system temperature controls preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Heating Systems Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

8.12 Forced Warm Air and Heat Pumps System & Maintenance/52 Chauncy Street

8.12.1 Objective

To insure the continued efficient operation of the 52 Chauncy Street heating system, by insuring that all temperature controls are functioning properly at all times.

8.12.2 Scheduled Activities

Twice Annually

Maintenance Superintendent/Building Manager Responsibilities:

Twice annually, in June and November, the Superintendent shall coordinate to have the zone valves inspected and serviced as necessary by a BHA Mechanic or qualified contractor. Additionally, the Superintendent shall have at least one extra zone valve on site, in case of an emergency replacement is needed.

Steam fitter/Contractor Responsibilities:

During the scheduled inspection and service period, the Steam fitter or contractor shall perform all necessary general maintenance to the zone valves including, but not limited to: inspecting valves for any visual defects and foreign objects, lubricating the valves, manually operating the valves (if applicable), "jumping" the

connections to check the operation of the valves (if applicable). Any valve that is found to be defective must be replaced at this time.

As needed

Heating Systems Coordinator/Inspector Responsibilities:

During the walk through, the Heating System Coordinator/Inspector shall visually inspect zone valves, and shall check the service loose-leaf binder to insure that the necessary work has been completed.

8.12.3 Systems Inventory Information

Forced Warm Air and Heat Pumps Systems Inventory & Specification sheet must include information on all zone valves, including location and replacement part information and shall be maintained in the systems Inventory Book and updated as needed. The Inventory shall also include all scheduled service checklist forms specific to the equipment at the site, as applicable. A site map can be used to supplement the location information if necessary. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Forced Warm Air and Heat Pumps Systems inventory, specification and checklists forms

8.12.4 Service Records

Copies of all records of all Forced Warm Air and Heat Pumps preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Heating Systems Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

8.13 Fuel Oil Consumption and Ordering Policy

8.13.1 Objective

To insure the continued efficient operation of an oil-fired heating system, by insuring consistent delivery of heating oil, monitoring fuel consumption, and providing reliable heat and/or hot water to residents.

8.13.2 Scheduled Activities:

Daily

Firemen Responsibilities:

During heating season [September 15th – May 15th], each morning, the Fireman must dip the oil tank and take a reading and record in boiler room logbook. During off-heating season [May 16th – September 14th]; the Fireman must dip the oil tank and take a reading and record in boiler room logbook at least once a week. The Fireman shall call this reading to the Maintenance Superintendent who will order oil as needed. Prior to and after receiving an oil delivery, the Fireman must dip the tank to insure that the appropriate amount of oil requested was delivered, and to minimize the potential hazard of any oil spillage due to over filling of an oil tank.

Fireman shall monitor the fuel oil circulating pumps for proper operation and visual inspect the fuel oil pumps, filters/strainers, and burners for any sign of leakage and respond to it properly.

Fireman is responsible to monitor the fuel oil consumption and report to the Heating System Coordinator or Inspector immediately for any drastic volume change in the storage tanks.

Weekly

Fireman Responsibilities

Fireman shall alternate the fuel oil circulating pumps and strainers/filters once a week and clean the strainers/filter elements immediately ready for use again.

As Needed

Firemen/Maintenance Superintendent Responsibilities:

The Fireman or Maintenance Superintendent shall be responsible for obtaining delivery slips from the deliverer and giving them to the Manager for immediate submission to the Accounts Payable Department. Oil may be ordered any working day.

Manager Responsibilities:

As oil delivery slips/receipts are provided, and each month, as the oil usage forms are submitted, the Manager must review these forms and submit them in a timely manner to the appropriate departments for processing.

8.13.3 Systems Inventory Information

Oil Fire Heating Systems Inventory & Specification sheet, including information on fuel type [oil must be specified as #2, #4 or #6] location and replacement part information shall be maintained in the systems Inventory Book and updated as needed. The Inventory shall also include all scheduled service checklist forms specific to the equipment at the site, as applicable. A site map can be used to supplement the location information if necessary. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Oil Fire Heating Systems inventory, specification and checklists forms.

8.13.4 Service Records

Copies of all records of oil-fired heating system preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Heating Systems Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

All copies of oil delivery slips/receipts shall be maintained in the development's purchasing filing system. All monthly oil usage forms shall be maintained in the Service Record binder, in chronological order.

Chapter 9 Plumbing

9.1 Water Distribution System - Inspection and Service Procedures

9.1.1 Objective:

To insure that the plumbing distribution system is operating properly and is maintained in accordance with applicable ordinances and codes.

9.1.2 Scheduled Activities:

Monthly

Manager/Maintenance Superintendent Responsibilities:

Each month, the Manager/ Maintenance Superintendent shall conduct a general inspection of the plumbing distribution system. This inspection should include, but not be limited to: visual inspections for leaks, location of water shut-off valves, broken or missing valve handles.

Annually

Manager Responsibilities:

Each year during the living unit inspection cycle, the manager should observe the conditions of plumbing fixtures, caulking, grout, and any visual leaks that may be originating from another location. These conditions should be noted on the living unit inspection form and processed to issue work orders to be completed by the appropriate staff. Hot water temperature must be tested and recorded.

Plumber Responsibilities:

Each year, the Plumber shall conduct a test of all main valves to insure their operation. This should include all building main valves, as well as, all hot and cold riser valves. This test should include, but not be limited to lubricating the valve, operating the valve back 1/4 turn, and checking for leaks.

9.1.3 Systems Inventory Information:

Water Distribution System Inventory & Specification sheet, including information on all valves, their location and replacement parts shall be maintained in the Systems Inventory Book and updated as needed. The Inventory shall also include all scheduled service checklist forms specific to the equipment at the site, as applicable. The Maintenance Superintendent shall coordinate with the Plumber and steam fitter tagging of all valves. Once all valves have been identified and tagged the inventory and PM maintenance checklist shall be completed with the tag number all the valves, and a description of the valves. A site map can be used to supplement the location information if necessary. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Water Distribution system inventory, specification and checklists forms.

9.1.4 Service Records:

Copies of all records of Water Distribution system preventive maintenance activities including all inspection checklists, services, repairs etc shall be filed in the annual Service Record Binder in the Plumbing Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

9.2 Drain Cleaning

9.2.1 Objective:

To insure that main horizontal and roof drains flow adequately within dwelling buildings and out to the street. In addition, to insure adequate site drainage by insuring that all dry wells are clear and not clogged and that street storm water systems are not blocked.

9.2.2 Scheduled Activities:

Annually

Manager/Maintenance Superintendent Responsibilities:

Once a year, the Manager/Superintendent shall arrange for the plumber to open each basement clean out and check the flow of waste water. Any drains which are flowing slowly shall be routed out by machine (contractor or in-house).

As needed/where needed

Manager/Maintenance Superintendent Responsibilities:

The Manager/Superintendent shall maintain a list of problem drains and have them cleaned regularly to help prevent back ups. The frequency of each clean out schedule shall depend upon the nature and scope of the problem. For site drainage, the manager/super shall arrange to have clogged dry wells cleaned out in-house or by a contractor to insure that water does not pond on the site after rain storms. Any clogged street drain may be cleaned by laborers/JGs if the clog is on the surface or the City may be called. See Roofing, Chapter 33, for information on roof drains.

In-house Plumber Responsibilities:

In between scheduled cleaning of drains, if a problem arises, a work order shall be issued and an in-house plumber will service as needed by use of a drain machine.

9.2.3 Systems Inventory Information:

The Drain Inventory & Specification sheet must include information on all main-drains, storm lines and dry wells used for site drainage, including location information and shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if applicable. The Inventory shall also include a master inspection and service checklist specific to the drains at the site and a list of those drains needing regular scheduled clean-outs. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Drain inventory, specification and checklists forms.

9.2.4 Service Records:

Copies of all records of all drain preventive maintenance activities including all inspection and service checklists, repairs etc will be filed in the annual Service Record Binder in the Plumbing Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

9.3 Back Flow Prevention

9.3.1 Objective:

To insure that the back flow device is operating properly and is maintained in accordance with applicable ordinances and codes.

9.3.2 Scheduled Activities:

Annually

Manager / Maintenance Superintendent Responsibilities:

The Manager/Maintenance Superintendent shall coordinate the annual inspection of back flow preventers by the Boston Water and Sewer Commission by being available on the scheduled inspection date to accompany the inspectors. Any deficiencies in the back flow preventer must be completed immediately. Managers are responsible for maintaining at least one repair kit on hand at all times in the event that one needs to be repaired on an emergency basis.

Boston Water and Sewer Responsibilities:

Annually, the Boston Water and Sewer Commission will perform a back flow inspection and submit a copy of the results to the manager.

9.3.3 Systems Inventory Information:

The Back Flow Device Inventory & Specification sheet must include information on all back flow preventers, including location information and the system to which they are related and shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if applicable. The Inventory shall also include a master inspection and service checklist specific to the back flow devices at the site and a list of those drains needing regular scheduled clean-outs. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Back Flow device inventory, specification and checklists forms.

9.3.4 Service Records:

Copies of all records of all back flow device preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Plumbing Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

9.4 Domestic Hot Water System

9.4.1 Objective:

To insure that the domestic hot water system is operating properly and is maintained in accordance with applicable ordinances and codes.

9.4.2 Scheduled Activities:

Monthly

Plumber Responsibilities:

Each month, the plumber shall perform a general inspection of the domestic hot water system and perform a discharge temperature check. The Plumber shall record its reading on the "Domestic Hot Water Chart" a master copy can be obtained in the S: FamEld Drive, SOP Master Building Systems Appendices. Any problems discovered at the time of the inspection must be corrected at that time.

Annually

Manager/Superintendent Responsibilities

Each year during the living unit inspection, the manager shall perform a hot water check in every unit and note the temperature on the living unit inspection form. Per Massachusetts Sanitary Code, water temperature must not be less than 110 degrees (F), and exceed no greater than 130 degrees (F). On an annual basis, the Manager/Superintendent shall arrange to have a plumber drain and flush all DHW storage tanks including stand-alone DHW heaters.

Every Three Years

Manager/Superintendent Responsibilities

Once every three years, the superintendent shall arrange for the plumber to open and inspect any DHW heater/storage tank over 120 gallons.

As needed

Manager/Maintenance Superintendent Responsibilities:

If between scheduled DHW inspections, the system were to malfunction, the manager and/or maintenance superintendent shall issue a work order and/or purchase requisition to have the in-house plumber or contractor make the necessary repairs to the system. In the event that an in-house plumber is used, all required stock necessary to maintain the system should be kept on inventory.

9.4.3 Systems Inventory Information

The Domestic Hot Water System Inventory & Specification sheet must include information on all DHW Heaters, storage tanks and circulating pumps, including location information and shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if applicable. The Inventory shall also include a master inspection and service checklist specific to the system at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Domestic Hot Water System inventory, specification and checklists forms.

9.4.4 Service Records

Copies of all records of all Domestic Hot Water system preventive maintenance activities including all inspection/service checklists, repairs etc will be filed in the annual Service Record Binder in the Plumbing Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files. All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form.

Chapter 10 Ventilation and Air Conditioning

10.1 Window Air Conditioning Units / BHA owned

10.1.1 Objective:

To insure the correct operation of all BHA owned window air conditioning units used to cool management, community and maintenance spaces during summer months.

10.1.2 Scheduled Activities:

As Needed

Managers/Maintenance Superintendents Responsibilities

Managers must keep spare filters on hand and respond to any problems with the units through purchase orders to contractors or issuance of work orders for repairs.

Annually

Maintenance Superintendent Responsibilities:

The Superintendent shall insure that the following tasks are complete each year by appropriate staff:

- During the month of May, each year, clean and/or change filter in the unit. For filters, which are washable, remove filter, wash thoroughly under a sink, dry, and replace in the unit. For units with disposable filters, remove old filter and replace with a new filter.
- At the same time, run the unit to test its operation. If there are any problems with the unit, report them to the manager for correction.
- Where practical, remove units from the windows on October 1 of each year, and store in a dry area, on a level surface. Where this is not practical, seal the units with an appropriate cover to prohibit air infiltration in the winter. Units should be returned to the window no later than June 1.

10.1.3 Systems Inventory Information

The Ventilation and Air Conditioning Inventory & Specification sheet must include information on all window air conditioner units, including all filters and other spare parts information, location information and shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if necessary. The Inventory shall also include a master inspection and service checklist specific to the units at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Ventilation and Air Conditioning inventory, specification and checklists forms.

10.1.4 Service Records

Copies of all records of all Ventilation and Air Conditioning preventive maintenance activities including all inspection checklists, services [including annual filter changing and testing of the unit by the resident custodian], repairs etc will be filed in the annual Service Record Binder in the appropriate Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files. All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form. Contractor service calls should indicate the work performed.

10.2 Roof Top Exhaust Fans

10.2.1 Objective:

To insure continuous operation of all roof top exhaust fans and to limit repair and service calls.

10.2.2 Scheduled Activities:

Weekly/Quarterly

Manager/Maintenance Superintendent's Responsibilities:

To check the operation of rooftop fans at each Building and Grounds Inspection and to issue work orders or place purchase orders to repair any inoperable units.

Annually

Maintenance Superintendent Responsibilities:

To schedule annual preventive maintenance of all roof top fans by a qualified electrician. These scheduled preventive maintenance visits should occur during the period from April through September.

10.2.3 Systems Inventory Information

The Roof Top Exhaust Fan Inventory & Specification sheet must include location and spare part information and shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if necessary. The Inventory shall also include a master inspection and service checklist specific to the system at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Roof Top Exhaust Fan inventory, specification and checklists forms.

10.2.4 Service Records

Copies of all records of all Roof Top Exhaust Fan preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the appropriate Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

10.3 Boiler Room Make-up Air Units

10.3.1 Objective:

To insure the continuous operation of all make-up air units (fans) and related equipment.

10.3.2 Scheduled Activities:

Annually

Firemen Responsibilities:

On an annual basis, the Fireman shall change filters and clean the coils in the air handling units to insure clean and adequate airflow. As needed, more frequent cleanings of the coils may be required.

Manager/Maintenance Superintendent Responsibilities:

The manager shall insure that annual preventive maintenance of all central air handling units is completed by a BHA mechanic or by a qualified contractor using a purchase order. See S: FamEld Drive Master Building Systems Appendices for annual preventive maintenance checklists.

As Needed

Fireman Responsibilities:

As needed, the Fireman shall assure that there are no cleaning supplies, solvents, or other odor or out-gas producing materials stored adjacent to ventilation equipment.

Manager Responsibilities:

To make all repairs as needed through issuance of a work order or purchase order as needed. To maintain stock on hand for all filters required.

10.3.3 Systems Inventory Information

The Boiler Room Make-up Air Unit Inventory & Specification sheet must include information on type and size of filters, if required, location and spare part information and shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if necessary. The Inventory shall also include a master inspection and service checklist specific to the system at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Boiler Room Make-up Air Unit inventory, specification and checklists forms.

10.3.4 Service Records

Copies of all records of all Boiler Room Make-up Air Unit preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the appropriate Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

10.4 Air Handling Units/Common Area Ventilation

10.4.1 Objective:

To insure the continuous operation of all air handling units (fans) and related equipment.

10.4.2 Scheduled Activities:

Weekly/Quarterly/As Needed

Management Staff/Custodians/Laborers/Janitor Groundskeepers Responsibilities:

As part of weekly and quarterly building walk-through inspections, staff shall insure that there is no cleaning supplies, solvents, or other odor or out-gas producing materials stored adjacent to ventilation equipment.

Manager Responsibilities:

To make all repairs as needed through issuance of a work order or purchase order and to maintain stock on hand for all filters required.

Annually

Manager/Maintenance Superintendent Responsibilities:

The manager shall insure that annual preventive maintenance of all central air handling units is completed by a BHA mechanic or by a qualified contractor using a purchase order. This shall include changing filters and cleaning coils.

10.4.3 Systems Inventory Information

An Air Handling Units/Common Area Ventilation Inventory & Specification sheet including information on type and size of filters, if required, location and spare part information shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if necessary. The Inventory shall also include a master inspection and service checklist specific to the system at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Air Handling Units/Common Area Ventilation inventory, specification and checklists forms.

10.4.4 Service Records

Copies of all records of all Air Handling Units/Common Area Ventilation preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the appropriate Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

10.5 Split System Air conditioning Systems and Heat Pumps

10.5.1 Objective:

To insure the proper operation and maintenance of split system air conditioning systems and heat pump units. These are generally located in Elderly developments to cool and heat common areas.

10.5.2 Scheduled Activities:

Weekly/Quarterly

Manager/Maintenance Superintendent Responsibilities

The manager shall inspect all components of split system air conditioning systems/heat pump units for obvious signs of damage during each weekly and quarterly building and grounds inspection.

Annually/ twice yearly

Manager/Maintenance Superintendent Responsibilities

The manager shall issue a Purchase Order at least once each year, during the period from April to May, for annual preventive maintenance services on the split system air conditioning system /heat pump unit to a qualified contractor. Managers may determine that twice annual service is required, particularly if the unit runs both heat and air conditioning, in which case service Purchase Orders should additionally be issued in the fall of each year.

As Needed**Manager/Maintenance Superintendent Responsibilities**

The maintenance superintendent/manager shall insure repair of split system air conditioning and heat pump units on an as needed basis.

10.5.3 Systems Inventory Information

A Split system air conditioning systems and Heat pump units Inventory & Specification sheet, including location and spare part information shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if necessary. The Inventory shall also include a master inspection and service checklist specific to the systems at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master split system air conditioning systems and heat pump unit's inventory, specification and checklists forms.

10.5.4 Service Records

Copies of all records of all Split system air conditioning systems and Heat pump units' preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the appropriate Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Chapter 11 Roofs

11.1 Flat Roofs

11.1.1 Objective:

To identify necessary maintenance, repair and replacement of building roofs, minimize damage to facilities resulting from faulty roofing and to inspect and maintain new roof work.

11.1.2 Scheduled Activities:

Weekly/Quarterly

Laborers/JGs/Custodians/Manager Maintenance Superintendent Responsibilities

Check roofs for obvious problems during all weekly walk-through inspections, and carefully inspect roofs during the quarterly Buildings and Grounds Inspections. Make all access to roofs secure, including doors and windows. Direct staff in any clean up activities required, write work orders for any repairs needed, insure that work orders are completed by the staff or contractors. Report major problems to the Service Programs Coordinator for correction.

Quarterly

At least once per quarter, this inspection should take place during or immediately following a rainstorm.

Flat Roof inspections shall include checking for:

1. Clogged drains and/or standing water.
2. Drain caps in place/strainers in place and unbroken
3. Debris requiring removal
4. Unauthorized equipment attached to the roof requiring removal
5. Condition of penthouse doors and windows/hatch
6. Problems with exhaust fans
7. Signs of flashing or parapet wall disrepair
8. Vegetation, tree growth at roof edge or above
9. Any other obvious problem or defect

Annually

Roofing Crew Responsibilities:

The Roofing Crew shall perform an annual inspection of all roofs and submit a report to the Manager. This report should be maintained in the Preventive Maintenance Service Record Book and any corrective actions needed should be coordinated by the Manager. Roof materials must be consistent and compatible with the current roofing system.

11.1.3 Systems Inventory Information

A Roof Inventory & Specification sheet including date of installation, warranty and material specification information and location information shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if necessary. The Inventory shall also include a master inspection and service checklist specific to the system at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Roof inventory, specification and checklists forms.

11.1.4 Service Records

Copies of all records of all roof preventive maintenance activities including all inspection and services checklists, repairs etc will be filed in the annual Service Record Binder in the Roofing Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

11.2 Pitched Roofs

11.2.1 Objective:

To identify necessary maintenance, repair and replacement of building roofs to minimize damage to facilities resulting from faulty roofing.

11.2.2 Scheduled Activities:

Weekly/Quarterly

Managers/Maintenance Superintendent Responsibilities:

Roofs should be checked for obvious problems during all weekly walk-through inspections, and carefully inspect roofs during the quarterly Buildings and Grounds Inspections. Direct staff in any activities required, write work orders for any repairs needed, insure that work orders are completed by the staff or contractors. Report major problems to the service programs coordinator for correction.

Quarterly

At least once per quarter, this inspection should take place during or immediately following a rainstorm.

Pitched Roof inspections shall include checking for:

1. Clogged or damaged gutters and downspouts
2. Condition of the fascia board.
3. Condition of roof tiles/roofing materials
4. Unauthorized antennas/satellite dishes
5. Condition of flashing
6. Attic ventilation grills
7. Vegetation
8. Any other obvious problem or deficiency

Annually

Roofing Crew Responsibilities:

The Roofing Crew shall perform an annual inspection of all roofs and submit a report to the Manager. This report should be maintained in the Preventive Maintenance Service Record Book and any corrective actions needed should be coordinated by the Manager.

11.2.3 Systems Inventory Information

A Roof Inventory & Specification sheet including date of installation, warranty and material specification information and location information shall be maintained in the Systems Inventory Book and updated as needed. A site map can be used to supplement the location information if necessary. The Inventory shall also include a master inspection and service checklist specific to the system at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master Roof inventory, specification and checklists forms.

11.2.4 Service Records

Copies of all records of all roof preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Roofing Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files. All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form.

Chapter 12 Small Engine Equipment, Power Tools and Skid Steer Loaders

12.1 Small Engine Equipment and Power Tools

12.1.1 Objective:

To keep all BHA small engine equipment [lawn mowers; lawn tractors; hedge trimmers; weed trimmers; chainsaws; leaf blowers; leaf vacuums; power edgers; power pole pruners; snow blowers; power brooms/sweepers; drain machines; generators etc] and power tools [drills; planers; saws; grinders; screw guns; chipping hammers; cutting torch etc] in prime working condition. To insure long life, safety of operation, availability at all times needed and to limit the cost for repairs and replacements.

12.1.2 Scheduled Activities for Operation and maintenance of Small Equipment

On –going

Equipment Operator's Responsibilities:

Small Engine Equipment and Power Tools may not be left unattended by Operator when in use. Staff shall be held responsible for equipment stolen due to failure to adhere to this policy. Each employee is responsible for the equipment or tool they are using. The employee should check their equipment at the start of the job and must report any problem immediately. If the employee encounters any problems during the workday with a tool or equipment this also must be reported to a supervisor immediately.

Manager/Maintenance Superintendents Responsibilities:

Manager/Superintendents shall insure that all employees operating any piece of equipment are given copies of the manufacturer's specifications on usage and care of all power tool or small engine equipment that employee may be using. Equipment operators should understand the potential hazards as well as the safety precautions to prevent those hazards from occurring.

It is the supervisor's responsibility to secure all small equipment in proper storage locations when not in use. Run gas out first if storage is in an occupied building. Small Engine Equipment should be kept in a secured area. All hand power tools must be kept in a locked gang box at the end of each work day. All tools and equipment must remain at the development they are assigned. Any employee that removes a tool or equipment for their personal use will be subjected to disciplinary action. Any tool which is shared by more than one employee shall be kept in a central, secure location and a sign out/sign in system will be used; each employee using this equipment must sign it out. All small engine equipment and power tools that are damaged shall be removed from use and tagged "**Do Not Use.**"

Annually

Manager/Maintenance Superintendents Responsibilities:

Managers/Superintendents shall insure that all employees using equipment are properly trained. The Risk Management Department in conjunction with the Operations Department provides annual training in Small Engine Equipment – Safety & Maintenance. The training program is scheduled in April annually. All employees using small engine equipment must attend this annual training. For new employees, superintendents can contact the Risk Manager to schedule a training session, if employee commences work after the April Training Session.

The Manager/ Maintenance Superintendent shall be responsible for issuing purchase orders to reputable small equipment service companies for annual service and tune-ups to all small engine equipment. All snow removal equipment must be serviced between April and October each year and newly serviced snow removal equipment must be on site before November 1 of each year. Landscape power equipment must be serviced between November 1 and April 1 of each year, but no later than April 15.

12.1.3 Servicing Small Engine Equipment

See Public Folders P-drive, SOP Appendices folder for a listing of recommended small engine equipment service companies [or Contact the Procurement Department] that you can contact for quotes when seeking bids for service/repair work [this listing may be updated at any time]. The manager/superintendent shall maintain records of all service to small engine equipment and power tools in the annual Service Records binder.

12.1.4 Purchasing New Equipment

The Manager/Maintenance Superintendent shall be responsible for seeking quotes and issuing purchase orders to reputable small equipment vendors to procure new equipment as needed. The Risk Manager in conjunction with the Landscape Management Coordinator has developed a listing of approved items and specifications for landscape small engine equipment to be utilized when purchasing new equipment. See Public Folders P-drive, SOP Appendices folder for a listing of approved items and a listing of small engine equipment Vendors or contact the Procurement Department. [This listing maybe updated at anytime.

12.1.5 Small Engine Equipment & Power Tools - Safe Operation & Maintenance Policies:

It is the responsibility of the superintendent to make sure that all staff operating small engine equipment and power tools is following all proper maintenance and safety policy and procedures as outlined in the equipment/tool manufacturer's manuals. General small engine equipment safety and maintenance guidelines for equipment operators are outlined below to supplement the equipment/tool manufacturer's manual and located in the appendix as a checklist form.

Superintendents and operators need to know and understand all small engine equipment and power tools. Superintendents and operators must read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this equipment/tool. Equipment operator must check all equipment:

- For noticeable defects and damage.
- To insure the gas tank is full
- To make sure when using two-stage equipment such as weed trimmers and leaf blowers that the machines are using the proper Gas/Oil Mix. (Bluish color).
- If using an electric power tool, check extension cord for any damage.
- Make sure all safety devices are in place and in proper working order including safety shields on snow blowers and plastic shields on weed trimmers.
- Check lawnmower blades for noticeable chunks and divots missing.
- When using weed trimmer check head to make sure it is secure and has proper amount of line.

12.1.6 Rules for Safe Operation of Small Engine Equipment and Power Tools

All equipment operators must follow strict safety requirements:

- Small engine equipment operators must walk the work area and remove any foreign objects – glass; bottles; large rocks; trash and any other item that may cause injury to the operator before using the equipment.
- Operators must never Start-Up and/or Operate small engine equipment indoors.
- Equipment Operators must put on safety glasses when operating any small engine equipment or power tool.
- Equipment operator must use hearing protection when appropriate E.g. when using power equipment such as leaf blowers; weed trimmers and chainsaws.
- Power tool operators must not expose electric power tools to rain.

- Power tool operators must not use electric power tools in damp or wet location or in the presence of flammable fluids or gases.
- Electric tools should be operated within their design limitations. Use the right tool for the job!
- All work areas should be well lit.
- Equipment/Tool operator must watch what he/she is at all times doing.
- Never overreach – keep proper footing and balance at all times.
- Dress properly – do not wear loose clothing or jewelry when operating equipment as they can get caught in moving parts.
- Power tool operators must disconnect tool from power source when not in use, before servicing or changing parts etc.
- Keep guards in place, in working order and in proper adjustment and alignment.
- Remove adjusting keys and wrenches when not in use, before servicing and when changing parts. Ensure that the switch is in “off” position before pulling in tool.
- Only trained repair persons should attempt repairs, electrical or mechanical.

12.1.7 General Maintenance of Power Equipment:

Equipment Operator must check engine oil every-time he/she uses a piece of power equipment. Oil must be changed every two months or as needed during summer and once during winter preventive maintenance. Air filter and gas filters must be checked; cleaned and replaced as needed. Spark plugs must be checked and cleaned once a month. Blades must be sharpened prior to season and as needed during season. Blades must be replaced if defective. Weed trimmer heads must be checked to make sure trimmer line spool is full. Gas/ oil mix must be checked often.

12.1.8 Storage of Equipment and Gas:

Equipment must be store only in designated areas. All gas cans, gas/oil mix and starter fluids must be placed inside a Certified Fire Protection Cabinet. Small engine equipment such as weed trimmers or leaf blowers must never be hung from steam and hot water pipes and natural gas lines. Spark plug wires must be removed when putting equipment away or when employee is working on a piece of equipment. During winter months make sure all equipment except snow blowers have all petroleum products drained and the equipment serviced for the following year. All employees operating any piece of equipment must be given copies of the manufacture’s specification on usage and care of all power tool or small engine equipment that employee may be using.

12.1.9 Equipment Rental

Consider the Equipment Rental option for site tasks that occur occasionally and for which purchasing equipment would be not cost effective. There is a Statewide Contract for Rental Equipment, refer to S: FamEld Drive SOP appendices for the list of Vendors on this Contract or check with the Procurement Department. As with purchasing goods or service, you will need to comply with all procurement procedures with renting equipment.

12.1.10 Systems Inventory Information

A small engine equipment and power tools Inventory & Specification sheet including date of purchase, date of service and warranty information shall be maintained in the Building systems Inventory Book and updated as needed. The Inventory shall also include all scheduled checklist forms specific to the equipment at the site, as applicable. See S: FamEld Drive, SOP Master Building Systems Appendices for sample small engine equipment and power tools Inventory, specification and checklists forms.

All small equipment and power tools must be tagged with asset number and service date records. All equipment/tool manuals and warranty information must be kept on file in maintenance Update this record as new equipment is purchased and/or old equipment removed from service.

12.1.11 Service Records

Copies of all records of all small engine equipment and power tools preventive maintenance activities including all inspection checklists, services, repairs and replacement etc will be filed in the annual Service Record Binder in the Appropriate Section. Records of all preventive maintenance purchase orders for regular and as needed services shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

12.2 Skid Steer Loaders

12.2.1 Objective:

To ensure the continuous safe operation of the Development's skid steer loader.

12.2.2 Operator Licensing Requirements

All employees using Skid Steer Loaders [or a compressed air, diesel, electric, gasoline, or steam drum hoists or winches to lift and move loads] must possess a valid, current Hoisting License. It is the responsibility of the superintendent to insure that all employees operating a Skid Steer Loader [or a compressed air, diesel, electric, gasoline, or steam drum hoists or winches to lift and move loads] have a valid and current Hoisting License. See Fam/Eld S:Drive, SOP Appendices for more information

12.2.3 Training Requirements

Superintendents shall insure that all employees operating skid steer loaders are licensed and are properly trained. All Operators should understand the potential hazards as well as the safety precautions to prevent those hazards from occurring. See Public P-Drive, SOP Appendices for the handout on Skid Steer Loader Training, a training developed by the Risk Manager and Landscape Management Coordinator. All Skid Steer Loader Operators must receive a copy of this handout and a copy must be posted in the maintenance office. The Risk Management Department in conjunction with the Operations Department provides annual training in Skid Steer Loader – Safe Operation & Maintenance. The training program is usually scheduled in November. All employees operating Skid Steer Loaders must attend this annual training.

12.2.4 Scheduled Activities for Safe Operation and Maintenance of Skid Loader:

Daily / Upon Each use

Operator's Responsibilities:

Operating a Skid loader is a very serious undertaking and as with all equipment/tools – power and non-power - the operator must exercise extreme care before, during and after operation.

Prior to use, the Operator must:

- Check all fluids including water (for water cooled engines), diesel fuel, and oil
- Perform a walk-around inspection of the vehicle
- Check for defects, including tires, lights; safety features; lift arms and cylinder pivot pins; attachments and other components
- Make sure that everything is in tact and working properly.

- Report any problem immediately.

If the operator encounters any problems during the workday with the skid loader this also must be reported to a supervisor immediately.

Prior to, during and after use of Skid Steer Loaders, Operators must:

- Familiarize him/herself with the work area before operating the skid loader, checking for obstacles and avoiding uneven terrain and steep slopes.
- Turn off the engine when fueling the skid loader.
- Never overload the bucket (refer to the Manufacturer's manual for optimal load amounts and make sure you are using the right size bucket for the machine you are operating).
- Use the equipment carefully to avoid harm to property or persons.
- Never lift, swing, or move a load over any person
- Never start to dig at a site unless Dig Safe has provided clearance.
- Clean the equipment after each use.
- Report any problem immediately. If the employee encounters any problems during the workday with a tool or equipment this also must be reported to a supervisor immediately.
- Always adhere to the safety precautions found in the Manufacturer's operation & maintenance manual.

Maintenance Superintendent Responsibilities - Ongoing:

The Maintenance Superintendent shall insure that the equipment is properly stored, maintained and operated at all times. In the event of equipment failure or breakdown, the maintenance superintendent is responsible for contacting the Service Company and issuing a purchase order for repairs and/or service as needed.

Three Times Per year

Service Programs Coordinator Responsibilities

The service program coordinator will insure that preventive maintenance services are carried out on all Skid Steer Loaders (at the sites) at least three times per year. The service program coordinator shall issue a contract or purchase order on an annual basis and shall have the equipment serviced on site in approximately October, February and July of each year.

Contractor Responsibilities

The contractor shall be responsible for completing full cleaning and servicing as called for by the BHA's purchase description and by manufacturer operating and maintenance recommendations. The service contractor shall leave with site staff a full service slip after each planned maintenance or repair visit, detailing work completed and noting any further corrective action needed. This slip must be signed by a site staff member who can verify that work was performed.

12.2.5 Systems Inventory Information

A Skid Loader Inventory & Specification sheet including date of purchase, date of service, list and model number for all attachments and warranty information shall be maintained in the Building systems Inventory Book and updated as needed. The Inventory shall also include all scheduled checklist forms specific to the Skid Loader at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for Skid Loader Inventory, specification and checklists forms. The Service Program Coordinator will also maintain these records.

12.2.6 Service Records

Copies of all records of all Skid Loader preventive maintenance activities including all inspection checklists, services, repairs etc will be filed in the annual Service Record Binder in the Appropriate Section. Records of all preventive maintenance purchase orders for regular and as needed services shall be filed in the annual

Service Record Binder as well as the purchase order system files. The Service Program Coordinator will also maintain these records.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Chapter 13 Vehicles/Trucks

13.1 Objective:

To maintain trucks to insure long life, safety of operation, and availability at all times needed.

13.2 Scheduled Activities:

Daily/Upon each use:

Laborer/Truck Driver Responsibilities:

It is the responsibility of the truck driver to do a visual check of the truck daily and check the fluids every time the truck is fueled. The driver shall, at each re-fueling, complete a thorough inspection of each vehicle and complete the truck inspection checklist each time this is completed. All vehicles shall be kept clean and debris free at all times and be washed as often as needed. During the winter months as salt and sand builds up this task should be performed more often at the site. After every snow/ice storm, all snow/ice removal vehicles (trucks, plows, sanders, etc) must be wiped down and cleaned thoroughly. Trucks and plows should be free of salt. Augers and other parts of sanders should be clean. Refer to Snow Removal, Chapter 14.

As needed

Laborer/Truck Driver Responsibilities:

Scrape and paint racks and body parts as needed to keep rust free. Clean up rust and re-paint at site.

In snow removal operations do not use overdrive and plow in low gear. Rubber bumpers are recommended for plow blades. Plow blades should be removed from trucks within 24 hours after a storm.

Quarterly/Annual - Regular Service

Garage Staff Responsibilities

The Garage staff maintains a schedule for regular service for all vehicles. They will contact superintendents/other staff when it is time for the truck to go to the garage for service.

13.3 Usage Policy/Licensing

It is the responsibility of the supervisor to give out and explain the BHA policy on motor vehicle usage to the truck driver and the back up driver. A copy of the policy will be kept in the glove compartment.

If an employee operates heavy equipment he or she must have an appropriate license. Supervisors should have a copy of a valid driver's license for every employee who drives a BHA vehicle. It is the employee's responsibility to inform supervisors of any change in their license status, but supervisors should also check periodically that all drivers have an up to date driver's license. Copies of all drivers' licenses must be forwarded to the Risk Management Department.

BHA will pay for renewal of special licenses (such as hoisting licenses for Skid Loaders, refer to chapter 34). The renewal application must be submitted to the Manager who will complete a check requisition.

Trucks may not be used to transport other staff members to appointments, court or other locations except in emergencies.

13.4 Insurance and Accidents/Reporting

Report accidents immediately, no matter how small, to Risk Management and the Garage.

The Authority is not self-insured as to its fleet and equipment. The Authority carries full coverage on vehicles and equipment 1997 and newer. Collision coverage carries a \$500 deductible and glass carries no deductible.

Be sure there is an Insurance ID card in each vehicle; these can be replaced if needed by Risk Management.

There should be an accident information card in each vehicle to assist in obtaining information at the scene of an accident. If not, the garage has extra copies.

Report all accidents whether there is damage or not to Risk Management using the Commonwealth of Massachusetts Report of Motor Vehicle Accident Form. Risk Management will report to police and Registry.

Accidents with Authority vehicles are not reflected on personal driving records.

If another party does damage to a BHA vehicle Risk Management will assume responsibility for obtaining reimbursement. Staff involved in an accident or witnessing the damaged should obtain and report the name and address of the responsible party.

Body damage should be repaired on newer trucks.

13.5 Vehicle Towing Policy

In the event that a BHA vehicle has been towed or stolen the following procedures must be followed:

1. Notify the direct Supervisor/Manager and Garage Forman of the following items;
 - a. Vehicle ID, including plate (this should be documented at the site or can be obtained from the Garage).
 - b. Where the vehicle was parked (include cross street references)?
 - c. Was it a legal space?
 - d. What time was the vehicle last seen?
 - e. Make note of any obvious signs of vandalism, broken glass at the space etc.
2. Once the vehicle is located, have a valid Registration available with the person picking it up. Purchase Order #'s will be needed if fees are assessed.
3. Inventory the vehicle for any additional damage or missing items. Submit a detailed report to Risk Management and copy the Garage of these items.
4. The site is liable for fees incurred by towed vehicles and additional fees for storage if the vehicle isn't located by the end of business of the first (1st) day. This charge will compound daily so follow-up is critical.

13.6 Systems Inventory Information

The garage maintains all information regarding all vehicles.

13.7 Service Records

Copies of all records of all vehicle/truck preventive maintenance activities including all inspection checklists, service-slips from the BHA Garage or outside Garage for each vehicle will be filed in the annual Service

Record Binder in the Vehicle Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

A copy of the completed work order should be provided to the Manager. The Garage staff also maintains these records.

Chapter 14 Trash Chutes and Compactors

14.1 Objective:

To maintain trash chutes and compactors in as clean a manner as possible, discouraging pest infestation, and to maintain compactors in such a way as to prolong their life as much as possible. Most compactor use is in elderly buildings.

14.2 Scheduled Activities:

Daily

Custodian/Laborer/Groundskeeper Responsibilities:

Check trash rooms to insure that all trash is removed or put down the chute. Maintain chute doors and trash room floors and walls in a clean condition. Wipe down all surfaces with disinfectant. Sweep up and dispose of any trash or garbage that escapes from the chute.

For bag-type compactors: Pull trash at least daily. Secure bags tightly and place into rubbish containers where possible. Where there are no rubbish containers, place bag in an out of the way location and insure that it is well secured to avoid odors and attraction to roaches or rodents.

For container type compactors: Pull containers in accordance with the schedule for pick up. Before returning the container to the building, wash out completely by spraying disinfectant and hosing down.

As needed

Custodian/Laborer/Groundskeeper Responsibilities:

The custodian/laborer/groundskeeper shall report to the manager/maintenance superintendent any problems with the operation of the chute doors, the proper fit of the chute seals, or the operation of the compactor immediately for correction.

Weekly

Custodian/Laborer/Groundskeeper Responsibilities:

In buildings where there is chute-washing equipment in operable condition, the custodian/laborer/groundskeeper shall wash down the chute on a weekly basis.

Manager/Maintenance Superintendent's Responsibilities:

The manager shall note the condition of trash rooms and the compactor and compactor room at each weekly inspection. The chute doors are to be checked for a proper seal. Any needed repairs shall be completed by a contractor upon issuance of a purchase order by the manager or by a BHA employee after issuance of a work order.

Annually

Manager/Maintenance Superintendent's Responsibilities

Once per year, the manager shall issue a purchase order to have the trash chutes steam cleaned, and chute door seals replaced when necessary by an appropriate contractor. Once per year, the manager shall issue a purchase order to have each compactor serviced by an appropriate compactor repair/service company.

14.3 Systems Inventory Information

A trash chute and compactor Inventory & Specification sheet including location and replacement part information shall be maintained in the Building systems Inventory Book and updated as needed. A site map

can be used to supplement the location information if necessary. The Inventory shall also include all scheduled checklist forms specific to the system at the site. See S: FamEld Drive, SOP Master Building Systems Appendices for sample master trash chute and compactor inventory, specification and checklists forms.

14.4 Service Records

Copies of all records of all trash chute and compactor preventive maintenance activities including all inspection checklists, services, repairs [e.g. repair/replacement to chute doors] etc will be filed in the annual Service Record Binder in the appropriate Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

All preventive maintenance activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Chapter 15 Regular Custodial Preventive Maintenance

15.1 Introduction

Regular Custodial Maintenance policies and procedures are covered in detail in Part 2 of this Manual – topics include Building and Grounds Inspections, Hallway and Common Area Maintenance, Grounds and Landscape Care, Snow Removal, Trash Removal and Pest Management. In these chapters we covered maintenance activities performed by laborers, JGs, resident custodians etc on a routine basis, occurring on a daily/weekly schedule as well as activities performed by maintenance staff [or others] on a non-routine basis occurring on a cyclical schedule annually. *Cyclical schedule annually* means occurring at varying intervals throughout the year. The cycle frequency may be quarterly – that is an activity will need to be scheduled 4 times a year, semi-annual – twice a year or annual only needs to be performed once a year.

The cyclical schedule of activities for Custodial preventive maintenance may depend on the season/weather [e.g. as with Snow Removal]; sometimes the cycle will be on a *fixed* schedule annually [e.g. Mosquito Control in late June]; and sometimes the cycle may be on an as-needed basis [e.g. frequency for scheduling basement flea/pest control may depend on the actual level of infestation].

In this chapter we are going to take a look at each topic and further discuss scheduling regular custodial maintenance activities for preventive maintenance in order to maintain the high standards for custodial maintenance expected. As with other preventive maintenance activities these maintenance custodial activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Copies of all inspections, service records, tracking reports, repair records etc for all custodial maintenance activities subject to preventive maintenance must be maintained in the Annual Service Record Binder in the appropriate sections.

15.2 Buildings [Refer to chapters 10, 11 & 12]

15.2.1 Objective:

To maintain the buildings [interior and exterior] at the highest possible level of cleanliness, to perform regular inspections to check on safety and repair requirements and to rid all developments of pests. Note: - Building systems [e.g. elevators, fire alarms, electrical, heating, plumbing, generators, ventilation, roofs etc] are covered in the previous chapters in this part of the Manual.

15.2.2 Scheduled Activities

Daily/Weekly

Laborers/JGs and Resident Custodian Responsibilities

All interior common areas [lobby/entrances, interior hallways, stairways, common rooms, laundry rooms etc] and all building exterior [doors, windows, roofs, gutters, downspouts etc] should be inspected daily for any litter, graffiti, damage or potential hazards etc. All common areas - should be thoroughly cleaned daily – cleaned meaning all litter picked up and all areas swept. All common areas – walls, floors, ceilings etc should be thoroughly cleaned - washed down weekly. All items detailed on the Building & Grounds Inspection short-form should be inspected at least weekly accordance with the defined standards detailed in Chapter 11. Any

problems observed must be reported to the Manager or Maintenance Superintendent on the day the problem is identified. Problems may include – graffiti or damage to stair treads, carpets, railings, stair pans, windows, roofs, Entry/Exit/Fire doors, mail boxes etc. All problems must be recorded on the weekly Buildings & Grounds inspections short-form.

Manager/ Maintenance Superintendent Responsibilities:

To insure that JGs, laborers, resident custodians work to a regular schedule so that it is possible to thoroughly clean all common areas at least weekly. To perform weekly inspections of all building hallways and common areas to insure that maintenance tasks are being performed as expected and as directed. To review the completed Building & Grounds Inspection short forms that JGs, laborers, resident custodians fill out and submit weekly. All deficiencies found during any inspection must be transferred to work orders for correction as either emergency or Building and Grounds priorities.

Quarterly

Manager/Maintenance Superintendent Responsibilities:

To schedule 3 or 4 times a year - the cleaning of the outside glass of windows where the windows tilt in. To conduct a formal Building & Grounds Inspection which includes inspection of the building exterior for each unique building address. To conduct a formal inspection of each interior common area where access is limited to BHA employees [utility rooms, boiler rooms]. To conduct a formal inspection of each interior common area that is regularly accessed by residents and/or general public. All deficiencies found during any inspection shall be transferred to work orders for correction as either emergency or Building and Grounds priorities.

As needed

Manager/ Maintenance Superintendent Responsibilities:

Any painting or other repairs should be scheduled as needed according to B&G priorities etc.

15.2.3 Service Records

Copies of all formal building & grounds quarterly inspections, any service records, tracking reports, repair records etc for any building maintenance activities subject to preventive maintenance shall be maintained in the Annual Service Record Binder in the appropriate sections. The weekly Building & Grounds inspections short-forms should be filed in a 3-Ring binder or file and can be sorted by JG/Laborer/Resident Custodian.

As with other preventive maintenance activities, maintenance custodial activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

15.3 Grounds and landscape Care [Refer to Chapter 13]

15.3.1 Objective

To maintain grounds and landscape to the highest standards for overall cleanliness and curb appeal of the developments, for health and safety of residents, employees and visitors and to the longevity of hardscape and greenscape surfaces. To identify necessary maintenance, repair and replacement of grounds and landscape elements to maintain these standards.

15.3.2 Scheduled Activities

Daily/Weekly

Laborers/JGs and Resident Custodian Responsibilities:

All grounds [including but not limited to walkways, steps, parking lots, stairwells, playgrounds, benches, fences, dumpsters etc] and landscaped areas should be inspected daily for graffiti, damage or potential hazards throughout the entire year. Potential hazards may include exposed nails, footings or sharp protrusions on benches, fences, play structures; play equipment not functioning as intended; large broken or low hanging tree branches; dead or diseased trees/shrubs; missing or broken handrails; large potholes; tripping hazards; obstructed stairwells/entranceways; vegetation obstructing views etc

All items detailed on the Building & Grounds Inspection short-form should be inspected at least weekly in accordance with the defined standards detailed in Chapter 11. All problems must be reported to the Manager or Maintenance Superintendent on the day the problem is identified. All problems must be recorded on the weekly Building and Grounds Inspection short-form. All trash must be picked up from all areas daily and grounds must be cleaned. Any clogged street drains; if clog is on the surface must be cleaned. All lawn areas must be mowed and trimmed weekly throughout the growing season as long as the grass is growing. All lawn areas must be watered weekly to supplement rainfall during the summer. All planting areas and paved areas should be weeded weekly or as often as is needed. If flower beds/pots are planted they must be routinely maintained throughout the growing season. All dead, damaged shrubs or small caliper trees must be routinely removed. Perform incidental pruning of trees and shrubs [that you can handle safely with the proper tools and personal protective gear] for safety and security reasons – i.e. remove dead/broken branches, raise tree crown for clearance, prune shrubs obstructing views etc]

Manager/ Maintenance Superintendent Responsibilities:

Perform weekly inspections of all grounds and landscaped areas to insure that all grounds and landscape maintenance tasks are being performed as expected and as directed. Review the completed Building & Grounds Inspection short forms that JGs, laborers, resident custodians fill out and submit weekly. All deficiencies [e.g. exposed nails, footings or sharp protrusions on benches, fences, play structures; play equipment not functioning as intended; large broken or low hanging tree branches; dead or diseased trees/shrubs; missing or broken handrails; large potholes; tripping hazards; obstructed stairwells/entranceways; vegetation obstructing views, broken hose bibs, blocked catch basins etc] found during any inspection shall be transferred to work orders for correction as either emergency or Building and Grounds priorities.

Quarterly

Manager/Maintenance Superintendent Responsibilities:

To perform formal quarterly inspections of the grounds of each building address [Refer to Chapter 11 – Building and Grounds Inspections]. Perform formal quarterly inspections of all play areas, benches, fences etc. All deficiencies found during any inspection shall be transferred to work orders for correction as either emergency or Building and Grounds priorities.

Twice yearly

Manager/ Maintenance Superintendent's Responsibilities:

To insure that all storm drains are cleaned twice a year. [Refer to Chapter 31 Plumbing]

Annually/Seasonally [Refer to Chapter 13 and Landscape Manual for more detail on all aspects of landscape care].

Laborers/JGs/ Resident Custodian and Program Landscape Crew's Responsibilities

To perform a thorough clean up in the Spring annually. To edge, weed and mulch all planting areas in the Spring annually. To maintain and treat [fertilize/lime at a minimum] all lawn areas annually. To pickup and remove all leaves from all areas in the Fall. If flower beds/pots are planted they must be maintained. To prune all shrubs annually as needed at the proper times at a minimum for security and safety reasons.

Manager'/ Maintenance Superintendent's Responsibilities:

To insure that all landscaped tasks are scheduled and performed within the given timelines annually. Plan on contracting out some tree care services annually [for hazard reduction pruning and/or maintenance pruning] to outside professional arborists over the winter months. At a minimum, trees should be inspected regularly for obvious potential hazards and the necessary steps should be taken to take care of all potential hazards immediately either with in-house staff or outside contractors for security and safety reasons. To schedule a formal inspection of hose bib connectors annually to make sure they are in good working order prior to the start of the landscape season. To perform an annual evening safety and lighting inspection of the grounds [this is usually scheduled in October – refer to Chapter 26].

15.3.3 Plans & Service Records

As part of your Annual Preventive Maintenance Plan, Property Managers must submit a landscape maintenance plan for your Property to the Assistant Director of Property Management or Regional Property Manager no later than April 1st, annually. Refer to Chapter 13 for Landscape Planning guidelines.

All landscape maintenance services performed by in-house program landscape crews or outside landscape contractors must be tracked and recorded on serviced maintenance reports. See S: FamEld Drive, SOP Appendices for sample serviced maintenance reports.

All tree work performed by in-house staff should be scheduled and tracked using the work-order system. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all landscape care preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files.

The formal Quarterly Building and Grounds inspection reports and playground/fence/bench inspection reports must be filed in the annual service record binder in the appropriate section. The weekly Building & Grounds short-forms should be filed in a 3-Ring binder or file and can be sorted by JG/Laborer/Resident Custodian.

As with other preventive maintenance activities, maintenance custodial activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

15.4 Snow Removal [Refer to Chapter 14]

15.4.1 Objective

To insure that Developments are properly prepared for the Snow Season annually. To insure that proper snow /ice removal procedures are in place and adhered to before, during and after every snow/ice storms.

15.4.2 Scheduled Activities:

Annually

Manager/Maintenance Superintendent's Responsibilities:

To insure that the Snow Plan for your Development(s) is in place no later than October 15th every year. All snow removal equipment and supplies must be on-hand also no later than Nov. 1st. Snow Removal equipment must be serviced between April and October every year [Refer to Chapter 34] and all equipment must be tested to make sure that it is in proper working order no later than Nov. 1st. Hydrants and Storm Drains must be marked. Landscaped areas must be protected as needed. Local back-up contractor listings must be updated etc

Every Snow/Ice Storm

Laborers/JGs and Resident Custodian Responsibilities:

To remove snow and ice according to the priority order outlined in your Snow Removal Plan and in accordance with proper standards and procedures outlined in Chapter 14

Manager/ Maintenance Superintendent's Responsibilities:

Property Managers/ Maintenance Supervisors must be on the grounds as much as possible during snow removal to oversee snow removal activities and problem solve. Report to your Assistant Director for Property Management or Regional Property Manager if any problem arises regarding equipment or completing snow removal work in a timely manner. Assistant Directors and Regional Property Manager will assist with problem solving and supplying additional resources if necessary.

15.4.3 Plans and Service Records

Property Managers must submit a Snow Removal Plan for your Development to your Assistant Director for Property Management or Regional Property Manager no later than October 15th, annually. Maintain this plan in the Building Systems Inventory and post in the maintenance office. Refer to Chapter 14 for Snow Removal Plan guidelines.

The Property Manager or Maintenance Supervisor must fill out the *Snow/Ice Storm Personnel/Equipment/Material Data Sheet and Snow/Ice Removal Checklists* for EVERY snow/ice storm. Form can be obtained in the Public P-Drive, SOP Appendices Folder. A copy of these documents must be kept on file at the site and a copy must be forwarded to your Program Maintenance Supervisor along with your overtime slips. PMS will review all documents for accuracy and forward a copy to the Landscape Coordinator [in a timely manner] to file in the Master File. These documents are tools to track and record all snow/ice removal activities. The data recorded on these documents will be used in the event that there is an insurance claim and/or we need to submit information to Federal Emergency Management Agency [FEMA] for major storm reimbursement costs.

As with other preventive maintenance activities, maintenance custodial activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form. See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

15.5 Trash Removal

15.5.1 Objective

To maintain trash collection areas, trash containers and trash enclosures in as clean a manner as possible, discouraging pest infestation. To identify necessary maintenance, repair and replacement of trash

containers, container covers and enclosures to maintain trash containers and enclosures in good working order.

15.5.2 Scheduled Activities

Daily/Weekly

Laborers/JGs and Resident Custodian Responsibilities

Inspect and maintain all trash areas daily. Dumpster/trash areas must be picked up and cleaned as one of the first tasks of each day. At least weekly, especially in the summer, dumpsters must be hosed down and deodorized. Any graffiti or hazards should be reported immediately to Management.

Manager/Maintenance Superintendent Responsibilities:

To inspect all dumpsters and trash collection areas during the weekly inspection walk-through of Buildings and Grounds. Dumpster contractors (who work for the City) are responsible for picking up any trash, which may fall out of the dumpster when it is dumped. They are also supposed to pick up any large items (furniture, etc) which are left next to the dumpster to be picked up. Managers and superintendents are responsible for monitoring compliance with these rules. You should notify Boston's Sanitation division of any problems, including missed pick-ups. The Program Services Coordinator will assist managers and superintendents who do not receive an adequate response from the City.

Quarterly

Manager/Maintenance Superintendent Responsibilities:

Perform quarterly inspections of all trash areas. Inspect and record the condition of each container, container covers and container enclosure. All deficiencies found during any inspection shall be transferred to work orders for correction as either emergency or Building and Grounds priorities. Trash areas should be baited to control pest infestation

Annually

Manager/Maintenance Superintendent Responsibilities:

Conduct a formal Dumpster Survey annually. A sample survey document can be obtained from the Public P-Drive, SOP Building Systems Appendices Folder All dumpsters should be painted annually. You should plan on replacing any dumpsters that are over 3-4 years old.

As needed

Manager/Maintenance Superintendent Responsibilities:

Replace covers as needed with plastic/fiberglass type covers. Make the necessary repairs as needed to insure that trash containers and enclosures are in good working order and meet standards expected.

15.5.3 Systems Inventory Information

A list of all dumpsters, sizes, ages, and locations shall be maintained in the building systems inventory binder. If the development uses compactors or other trash removal or storage systems this information shall be compiled and maintained in the Building Systems Inventory binder.

15.5.4 Service Records

Copies of all records of all trash preventive maintenance activities including all inspection checklists, services, repairs and replacements shall be filed in the annual Service Record Binder in the appropriate Section. Records of all preventive maintenance (P) work orders shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders shall be filed in the annual Service Record Binder as well as the purchase order system files

Keep a record of all Dumpster surveys and forward a copy to the Service Program Coordinator to file in the Master File.

As with other preventive maintenance activities, maintenance custodial activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: FamEld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

15.6 Pest Management

15.6.1 Objective:

To control pests in apartments, common areas, basements and grounds at all times.

15.6.2 Scheduled Activities:

Daily/Weekly/Monthly

Laborers/JGs and Resident Custodians Responsibilities

Daily inspection and cleanup of debris around dumpster areas, grounds, hallways, stairwells, common areas etc. will greatly contribute to your development plan of striving to attain pest free developments.

Laborers/JGs/Resident Custodians shall report any evidence of pest activity to Manager/Superintendent. If an active rodent problem exists and a mapping of activity and placement of bait boxes is available, activity should be monitored by staff as well as the contractor and reported to Manager/Superintendent.

Quarterly/Annually

Manager/Maintenance Superintendent Responsibilities

Record any evidence of pest activity during any LUI inspection. Any pest activity observed must be added to the Focus list for apartments for contractor follow up.

All basements/crawl spaces, dumpsters/trash areas, common areas, grounds, etc. should be inspected quarterly for any pest activity. If a problem exists, add the area to the B&G focus list for contractor follow up.

Annually

Licensed Pest Applicators - Staff or Contractor:

Must bait all catch basins annually on a fixed schedule – usually in the end of June/early July for mosquito control as requested by Suffolk County Mosquito Control (SCMC). SCMC request that all catch basins treated are marked with traffic paint. The pesticide, marking paint and paint wands will be provided by them. The paint wands must be returned to SCMD after the treatments are completed.

Annually

Manager

Prepare bidding documents for IPM contract once yearly using only state contract vendors. Refer to www.commbuys.com or the SOP appendices, Chapter 16 for the list of approved vendors. See Chapter 16 in the SOP manual and Chapter 16 in the SOP Appendices for the BHA IPM specification to bid the IPM contract and the procedure for the second year option.

As needed

Manager/Maintenance Superintendent Responsibilities

To respond to any reports of pest activity in accordance with timelines and standards outlined in Chapter 16 and 18. The standard for Extermination Call Back work orders is 14 days. Adhere to the Vacancy Preparation Standards detailed in Chapter 20 which includes cleaning up of old pesticide baits, pests and pest evidence and harborage reduction through exclusion.

15.6.3 Service Records

All extermination activities performed by in-house staff must be tracked on work orders. Copies of all inspections, BHA or outside pest service records, reports, repair records, housekeeping citations etc. for all pest management related activities must be maintained in the annual service record binder in the appropriate section.

Records of all preventive maintenance (P) work orders (actual copies or work order reports) shall be filed in the annual Service Record Binder as well as the work order system files. Records of all preventive maintenance purchase orders for IPM shall be filed in the annual Service Record Binder as well as the purchase order system files. Pesticide service records whether they are from in-house activities or from an IPM contractor shall be filed in the annual Service Record Binder or an IPM/bed bug log book.

As with other preventive maintenance activities, maintenance custodial and pest control activities must be included and tracked on your Annual Preventive Maintenance Plan – Schedule and Report form See S: Fam/Eld Drive, SOP Master Building Systems Appendices for sample Annual PM Plan – Schedule and Report Form.

Pest Control Service Record-keeping [From Chapter 16]

License Holder's Responsibility:

In-house employees who perform pest control services on BHA property must maintain records of all pesticide usage by filling out the **BHA Pest Control Service Record form**. See, S:drive, SOP, SOP Appendices, Chapter 16 Pests and Mold, Pesticide Use Form for a copy of this form. The information recorded on these forms and proof of insurance from the Risk Management Department will be submitted to the State annually as part of the Pesticide Usage Reporting process. This is the responsibility of the licensed pesticide applicator. See S:drive, SOP, SOP Appendices, Chapter 16 - Pests and Mold for additional information on Pesticide Use Reporting to the State. In-house employees who perform pest control services on BHA property are required to keep a copy of each completed BHA Pest Control Service Record form for his/her own personal records and the reporting requirements. The report must include all pesticides used. Remember that products available to the general public must still be reported by the BHA licensed pesticide applicator such as Round Up for weed control. A copy must also be filed with the corresponding pest control work order and submitted to the Maintenance Superintendent to file. A copy of all service records for pesticide contractors' and in-house licensed employees' work at the BHA must be provided to the manager at the time of service and kept in a Service Record Binder or IPM/Bed bug log book.

Manager/Maintenance Superintendent's Responsibility:

The Property Manager or Maintenance Superintendent must insure that all pest control work orders have a Pest Control Service Record document attached. The Property Manager, Maintenance Superintendent or their designee must maintain copies of all pest control work orders and pest control service records.

Program Maintenance Supervisor's Responsibility:

The PMS should on a yearly basis, gather the pesticide usage reports for Mosquito or weed control from their pesticide applicators and forward to the Maintenance Systems Manager at the Building Services Office. He/she will copy them to the SOP Appendices for future reference and, in case, the pesticide applicator(s) misplaced any of their copies of the documentation needed for the state usage reporting process.

Outside Contractor's Responsibility:

Outside Pest Control Contractors can use the BHA Pest Control Service Form or may use an equivalent form developed by the Contractor. If the contractor chooses to use their own form, the BHA manager should review it and approve its content prior to the start of the contract.

All records of inspections/treatments shall be maintained in the Preventive Maintenance Annual Service Record Binder or IPM/Bed bug log books.

PREVENTIVE MAINTENANCE SCHEDULE & report FORM (ART 1 - B UILDING SYSTEMS)

Dev #	Development Name	Use P to denote when Task is Planned
501	WEST BROADWAY	

reventive Maintenance on Building Systems which includes: Inspecting - Testing - Cleaning - Servicing - Reair - Relacement														
Refer to Chater in SU manual	Item:	Schd	Ar	May	June	July	Aug	Se	Oct	Nov	Dec	Jan	Feb	Mar
	Electrical Distribution Inspection	A												
	Battery Lights, visual Inspect.	W								P				
	Battery Lights Testing	M	P	P	P	P	P	P	P	P	P	P	P	P
	Battery Lights Testing (on B&G Inspections)	Q												
	Intercom Inspections on Annual LUI	A												
26 - Electrical	Call-for Aid	A									P			
	Exterior Lights - visual Inspect.	W												
	Exterior Lights (on B&G Inspections)	Q												
	Exterior Lights -Nite Inspection	A		P										
	Exterior Lights -Servicing, coordinate with Boom Lift/Aerial Truck Schedule	AN												
	Fire Alarm Sys - Inspection	W	Daily/Weekly Laborers/JGs/RC/Mgr./Suer must Inspect master alarm anel check and report any roblems immediately											
	Fire Alarm Sys. Service Contractor (and Inspect on B&G Inspections)	Q			P			P			P			P
	Extinguishers -visual Inspect.	W	Daily/Weekly Laborers/JGs/RC/Mgr./Suer must check fired extinguishers and report any roblems immediately											
	Extinguishers (on B&G Inspections)	Q	Refer to B&G Schedule											
	Extinguishers serviced by outside contractor	A										P		
	Sinkler Systems	W	Daily/Weekly Laborers/JGs/RC shall conduct a visual Inspection and report any roblems immediately											
	Sinkler Systems Service Contract	A										P		
	Fire um Service Contractor	A												P
	Smoke Detector-visual Inspect.	W	Daily/Weekly Laborers/JGs/RC shall conduct a visual Inspection and report any roblems immediately											
	Smoke Detector in Common Areas Inspection (on B&G Inspections)	Q	Refer to B&G Schedule											
	Smoke Detector testing & battery relacement	A	Refer to LUI Schedule											
		Smoke Hatch Inspect	W	Daily/Weekly Laborers/JGs/RC shall conduct a visual Inspection and report any roblems immediately										
	Smoke Hatch Inspect (on B&G Inspections)	Q	Refer to B&G Schedule											
	Smoke Hatch Service	A	N/A											
	Water Distribution System Inspect	M	P	P	P	P	P	P	P	P	P	P	P	P
	Water Distribution System Inspect(on LUI)	A	Refer to LUI Schedule											
	Water Distribution System Testing - by lumber	A			P									
	Vertical Drains - Clean/Check - lumber	A			P									
	Horiz Drains - Clean/Check - lumber	A												
	Back Flow reverters - Inspect by BWSC	A		P										
	Domestic Hotwater Sys - Inspect.	M	P	P	P	P	P	P	P	P	P	P	P	P

PREVENTIVE MAINTENANCE SCHEDULE & report FORM (ART 1 - BUILDING SYSTEMS)

[illegible]

D=Daily; W=Weekly; M=Monthly; Q=Quarterly; T=Three times per year; S=Semi-Annual; A=Annual AN=As Needed.
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PREVENTIVE MAINTENANCE SCHEDULE & report FORM (ART 1 - B BUILDING SYSTEMS)

Dev #	Development Name	Use P to denote when Task is Planned												
501	WEST BROADWAY													
Refer to Chater in SO Manual	Item:	Schd	Ar	May	June	July	Aug	Se	Oct	Nov	Dec	Jan	Feb	Mar
	Annual Survey	A	P											
	Annual Plan	A	P											
	Inspect for Pest Activity during any inspection eg LUI Inspections and qrtly Inspections	W/Q/A	Daily/Weekly Laborers/JGs/RC shall report any pest activity immediately. Refer to B&G Inspection Schedule and LUI Inspection Schedule for Quarterly/Annual Inspections											
16 - Pest Management (And Ch. 37)	Flush-Out (units that are not part of IPM Plan)	S												
	Basement/crawl spaces Inspect	Q			P			P						P
	Bait Storm Drains - to control West Nile Virus	A				P								
	IPM	as per plan	P	P	P	P	P	P	P	P	P	P	P	P
	Annual Landscape Maintenance Plan	A												
13 - Grounds & Landscape Care	Spring Cleanup	A												
	Mulching Planting areas	A												
	Lawn Fertilization/Lime	A												
	Lawn Weed Control	A												
	Hardscape Weed Control	A & AN												
	Lawn Grub Control	A/AN												
	Lawn Aeration	A												
	Lawn Overseeding	A												
	Planting Bed Weed/Feed Control	W												
	Planting Beed Weed Control	W												
	Watering	W												
	Lawn Mowing	W												
	Fall Leaf Pick up & Removal	A												
	Tree Inspections (with B&G Inspections)	W/Q	Daily/Weekly Laborers/JGs/RC shall conduct a visual inspection and report any problems immediately. Refer to B&G for formal quarterly inspection schedule											
	Tree Maintenance - as per plan	A & AN	Refer to Landscape Maintenance Calendar for Schedule											
	Shrub Inspection (with B&G Inspections)	W/Q	Daily/Weekly Laborers/JGs/RC shall conduct a visual inspection and report any problems immediately. Refer to B&G for formal quarterly inspection schedule											
	Shrub Maintenance - as per plan	A & AN												
Flower Planting	A or S													
Playground/Fence & Bench Inspect.	D/W	Refer to Landscape Maintenance Calendar for Schedule												
Monthly Walk through by Supers/Managers	M	Daily/Weekly Laborers/JGs/RC shall conduct a visual inspection and report any problems immediately												
Replenish Fibar Mulch for playground surface	A/AN	P												
Thorough Playground Inspection before school vacation.	A	P												
Playground/Fence & Bench Formal Inspection (on B&G Inspections)	Q	Refer to Formal Quarterly B&G Schedules												
Heating System Description: Gas Fired System (Refer to SOP Manual Chapter 30)														
Task:	Schd	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Daily Service Activities	D	P	P	P	P	P	P	P	P	P	P	P	P	P

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PREVENTIVE MAINTENANCE SCHEDULE & report FORM (ART 1 - B UILDING SYSTEMS)

Dev #	Development Name	Use P to denote when Task is Planned												
501	WEST BROADWAY													
reventive Maintenance on Building Systems which includes: Inspecting - Testing - Cleaning - Servicing - Reair - Relacement														
Refer to Chater in SU Manual	Item:	Schd	Ar	May	June	July	Aug	Se	Oct	Nov	Dec	Jan	Feb	Mar
Weekly Service Activities	W	P	P	P	P	P	P	P	P	P	P	P	P	P
Feed Pump	M	P	P	P	P	P	P	P	P	P	P	P	P	P
Burner Motor	M	P	P	P	P	P	P	P	P	P	P	P	P	P
Air Handler	M	P	P	P	P	P	P	P	P	P	P	P	P	P
Circulating Pump	M	P	P	P	P	P	P	P	P	P	P	P	P	P
Annual Cleaning	A					P								
State Inspection	A						P							

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Dev #	Development Name
505	Fairmount

Use P to denote when Task is Planned

Preventive Maintenance on Building Systems which includes: Inspecting - Testing - Cleaning - Servicing - Repair - Replacement														
Refer to Chapter in SOP manual	Item:	Schd	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
26 - Electrical	Electrical Distribution Inspection	A	P											
	Battery Lights, visual inspect.	W												
	Battery Lights Testing	M	P	P	P	P	P	P	P	P	P	P	P	P
	Battery Lights Testing (on B&G Inspections)	Q												
	Exterior Lights - visual inspect.	W												
	Exterior Lights (on B&G Inspections)	Q												
	Exterior Lights -Nite Inspection	A						P						
	Exterior Lights -Servicing, coordinate with Boom Lift/Aerial Truck Schedule	AN							P	P				
	Extinguishers -visual inspect.	W												
	Extinguishers (on B&G Inspections)	Q												
	Extinguishers serviced by outside contractor	A	P											
	Smoke Detector-visual inspect.	W												
	Smoke Detector in Common Areas Inspection (on B&G Inspections)	Q												
	Smoke Detector testing & battery replacement	A												
	31 - Plumbing	Water Distribution System Inspect	M	P	P	P	P	P	P	P	P	P	P	P
Water Distribution System Inspect(on LUI)		A												
Water Distribution System Testing - by Plumber		A	P											
Vertical Drains - Clean/Check - Plumber		A	P											
Horiz Drains - Clean/Check - Plumber		A	P											
Domestic Hotwater Sys - Inspect.		M	P	P	P	P	P	P	P	P	P	P	P	P
Domestic Hotwater Sys - Inspect on LUI		A												
Domestic Hotwater Sys - Drain & Flush by Plumber		A												P
Window A/C - Service		A		P										
Roofs - on Inspections		W/Q												
33 - Roofs	Roofs - Inspection following rainstorm	Q			P		P			P			P	
34 - Small Equipment & Skid Loaders	Landscape Equip. (Nov. - March)	A												P
	Snow Removal Equip. (April - Oct.)	A							P					
35 - Vehicles & Trucks	Pick-up/Rack Body Truck	D												
	Pick-up/Rack Body Truck - by Garage	Q			P			P			P			P
Refer to Chapter in SOP Manual	Item:	Schd	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Weekly Walk Through	D/W												

PREVENTIVE MAINTENANCE SCHEDULE & REPORT FORM (PART 1 - BUILDING SYSTEMS)

Dev #	Development Name
505	Fairmount

Use P to denote when Task is Planned

Preventive Maintenance on Building Systems which includes: Inspecting - Testing - Cleaning - Servicing - Repair - Replacement														
Refer to Chapter in SUP Manual	Item:	Schd	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
11 - B&G (And Ch. 37)	Monthly Walk through by Supers/Managers	M					Refer to B&G Routine Inspection Schedule							
	Formal Qrtly. Insp. On B&G Inspections	Q					Refer to Formal Quarterly B&G Schedules							
	Weekly Walk Through	D/W							P					
12 - Hallway (and Ch. 37)	Monthly Walk through by Supers/Managers	M								P			P	
	Formal Qrtly. Insp. On B&G Inspections	Q												
14 - Snow Removal Plan (and Ch. 37)	Annual Plan	A												
	Snow Removal	AN									P			P
	Weekly Walk Through	D/W												
	Monthly Walk through by Supers/Managers	M												
	Formal Qrtly. Insp. On B&G Inspections	Q												
15 - Trash Removal (and Ch. 37)	Annual Survey	A												
	Annual Plan	A												P
	Inspect for Pest Activity during any inspection eg LUI Inspections and qrtly Inspections	W/Q/A												
	Flush-Out (units that are not part of IPM Plan)	S												
	Basement/crawl spaces Inspect	Q			P			P						P
16 - Pest Management (And Ch. 37)	Bait Storm Drains - to control West Nile Virus	A					P							
	IPM	as per plan	P	P	P	P	P	P	P	P	P	P	P	P
	Annual Landscape Maintenance Plan	A												
	Spring Cleanup	A	P											
	Mulching Planting areas	A	P											
13 - Grounds & Landscape Care	Lawn Fertilization/Lime	A												
	Lawn Weed Control	A												
	Hardscape Weed Control	A & AN												
	Lawn Grub Control	A/AN												
	Lawn Aeration	A												
	Lawn Overseeding	A												
	Planting Bed Weed/Feed Control	P	P	P	P	P	P	P	P	P	P	P	P	P
	Planting Bed Weed Control	W												
	Watering	W												
	Lawn Mowing	W												
	Fall Leaf Pick up & Removal	A								P				
	Tree Inspections (with B&G Inspections)	W/Q												
13 - Grounds & Landscape Care	Tree Maintenance - as per plan	A & AN												
	Shrub Inspection (with B&G Inspections)	W/Q												
	Shrub Maintenance - as per plan	A & AN												

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505	Fairmount												

Refer to Chapter in SOP manual	Preventive Maintenance on Building Systems which includes: Inspecting - Testing - Cleaning - Servicing - Repair - Replacement													
	Item:	Schd	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	Flower Planting	A or S	Refer to Landscape Maintenance Calendar for Schedule											
	Basketball Court/Fence Inspect.	D/W	Daily/Weekly Laborers/JGs/RC shall conduct a visual inspection and report any problems immediately											
	Monthly Walk through by Supers/Managers	M	Refer to B&G Monthly Inspection Schedule											
	Basketball Court/Fence Formal Inspection (on B&G Inspections)	Q	Refer to Formal Quarterly B&G Schedules											
	Heating System Description: Gas Fired System (Refer to SOP Manual Chapter 30)													
Task:	Schd	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Annual Cleaning and Filter Replacement	A						P							

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