

DORCHESTER MANAGEMENT

OPERATIONS MANUAL

PREVENTIVE MAINTENANCE

Maintenance checks are the primary method for carrying out an effective preventive maintenance program. A check may include regularly scheduled maintenance, loss prevention or a preventive maintenance inspection, as well as any required corrective maintenance that must be taken.

A well-organized Preventive Maintenance (PM) program is essential for every community. This program will extend the life of the buildings and equipment and protect the company from liability and better preserve the Owner's assets. Residents also perceive the company is going out of its way to provide another service and that they truly care about the community, as well as the Residents' comfort and well-being.

Preventive maintenance is designed to promote the 3 P's. **Preserve, Protect and Promote** the Owners assets. These factors will build:

Quality service

Pro-active evaluation for potential future concerns

Cost effective budgets for upcoming year

Energy conservation

Reduction in service request

Improved landscaping and curb appeal

Improved relations with the Residents

Furnace filters should be replaced quarterly in each apartment on the property. The Maintenance Supervisor is responsible for coordinating installation throughout the three-month time frame. This is also a great time to inspect for other Preventive Maintenance needs. Quarterly, (or as needed), Community Managers are expected to evaluate the condition of every apartment during the Community Manager inspection. Please observe the following Steps to ensure that all preventive maintenance is completed on your community throughout the calendar year:

The Preventive Maintenance Plan must be utilized in the following manner:



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

Residents must be notified three (3) days prior to inspections.

Each quarter, as an apartment is turned, or filters changed a preventive maintenance inspection should be performed. Preventive maintenance includes checking smoke alarm batteries, range queens, infestations, blocked windows/doors, emergency pull cords tied up (senior buildings), A/C coils, and oil evaporators in fan motors.

Inspection Timetables

Depending upon the geographic location and the age of your property, inspections will be performed at different frequencies. An effective preventive maintenance program is driven by a preplanned schedule for inspecting the various maintenance aspects of your property. All maintenance tasks should be identified and scheduled on a daily, weekly, monthly, quarterly, semi-annual, or annual frequency.

Daily Inspections – may include amenities, common areas and boilers.

Housekeeping Inspections – may include the interior of each apartment unit twice per year. Each inspection will be documented by the Property Manager and will take place once every 5 months.

Weekly Inspections – may include building exteriors and building foundations. Weekly inspections should be performed on specific days for specific tasks.

Monthly Inspections – also performed on regularly scheduled days; may include the repair and maintenance of major equipment.

Quarterly Inspections – may include alarm systems, water heaters, furnace filters and smoke detectors.

Semi-annual Inspections – should be performed on seasonal equipment; roofs, gutters and air conditioner condenser units. Because such inspections are only performed twice each year, care must be taken to ensure that they are thorough and complete.

Annual Inspections – may include sprinklers, fire extinguishers, back flow equipment, retention/detention ponds, dryer vents, blower motors, drains and sewers.



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

Preventive Maintenance Notebook

To implement a successful preventive maintenance program a Preventive Maintenance Notebook (three-ring binder) should be maintained for your property. The notebook should be tabbed according to the timing of each type of preventive maintenance activity – weekly, monthly, quarterly, etc. This notebook should also contain specifications, guidelines, and schedules for the completion of all preventive maintenance tasks.

These pages will act as your guidelines for setting priorities and scheduling maintenance throughout the year.

Preventive Maintenance Program

Categories

A preventive maintenance program at your property should cover the following areas:

Seasonal Inspections

Fall/Winter

Irrigation System – depending on the geographic location of your property and whether or not winter rye grass is planted, you may or may not need to do the following: drain all lines and valves in the lawn irrigation system, and then blow out the compressed air to prevent freeze damage. It is best to check with your landscape service to determine if this process is necessary.

Sprinkler System – Each fall, drain all lines and valves in the sprinkler system, and then blow out the compressed air to prevent freeze damage. This applies to northern properties where freezing occurs.

Snow Removal Equipment – Inspect all snow removal equipment to ensure that it is in good working condition. Order ice melt.

Seasonal Flowers – Plant all spring bulbs. Remove summer bulbs and store.

Water Cutoff – Every fall, all maintenance employees will be shown the locations of all water cutoffs in each building. This will be repeated in January, in case water breaks occur during winter freezes. A map and some type of marking device indicating the location of water cutoffs for each building should be maintained and kept in an obvious location. All building water cutoffs will be wrapped with insulation to prevent pipes from freezing.



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

Trees and Shrubs – Fertilized and sprayed for pests.

Spring/Summer

Irrigation System – Turn lawn irrigation system on and inspect for broken pipes and missing heads.

Seasonal Flowers – Plant any summer bulbs and annuals.

Sprinkler System – Open and check the sprinkler system. Make all repairs necessary to any freeze breaks.

Trees and Shrubs – Fertilize and spray for pests.

Water cutoffs – Remove insulation from cutoffs and inspect pipes for breaks.

A Seasonal Preventive Maintenance Checklist is an effective tool for monitoring preventive maintenance.

Mechanical Inspections

Each property's preventive maintenance program should include a regular, periodic inspection of all mechanical systems and equipment on the property.

Apartment Make-Ready Checklist

Your preventive maintenance program should start with the Make-Ready Inspection. This inspection is conducted as part of the apartment make-ready process and is designed to substantially reduce service calls to that unit after move-in. The Apartment Make-Ready Checklist should be utilized for this inspection.

The Apartment Make-Ready Checklist is to be utilized during each apartment turn. Once an apartment is considered to be market ready, the completed Apartment Make-Ready Checklist should be filed in the unit maintenance file for that apartment.



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

Preventive Maintenance Inspection Items

Mechanical Equipment

Filters - Inspect and replace quarterly

Heat Exchangers - Clean and inspect annually

Blower motors, inducer motors, condenser/heat pump motors - check and oil annually

Condensers - Clean and straighten fins, check pressures and inspect for leaks annually

Evaporator - Clean and straighten fins, inspect for leaks. Inspect pan & clean tubing

Water Heaters - Check T & P valve annually

Plumbing

Dishwashers, disposal, faucets, drains, sinks, clean-outs, tubs, showers and hose bibs - inspect annually

Manholes, meter pits and sewers - check annually

Irrigation systems - Inspect monthly

Electrical

Inspect transformer boxes, secondary, breaker panels, switches, receptacles and wiring annually. Evaluate aluminum wiring, switches and receptacles twice a year.

Lighting - Inspect bi-weekly

Elevators - Inspect and clean monthly

Roofs, Gutters & Downspouts

1. Inspect and clean annually



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

Buildings

Inspect for deterioration monthly. Check for holes in soffit and missing dryer vents.

Windows and Doors - Inspect locks, hinges, closers, glazing, weather-stripping and seal failure twice a year.

Balconies - Inspect twice a year for wood replacement, concrete failure and delamination.

Stairs and hallways - Inspect treads, risers, handrails, walls and floors for damage and/or wear monthly.

Elevators

Communities that have elevators must follow a strict Preventive Maintenance program for the safety of the system. The steps below must be followed in order to assure the proper operations of our elevators.

A proposal from a certified elevator company must be submitted yearly with pricing for preventive maintenance and emergency maintenance.

Technicians must follow guidelines stipulated by confined space codes as written by OSHA.

The following items must be inspected and have preventive maintenance performed on a quarterly basis:

Pump Unit

Motor - include motor windings, bearings, rotating elements, commuters, brushes and brush holders

Hydraulic Muffler

Valves, Valve Magnet Coils and Valve Motors

Packing

DORCHESTER MANAGEMENT

OPERATIONS MANUAL

Controller - relays, resistors, contacts, coils, leads, transformers, timing devices and solid state components

Dispatching equipment - relays, resistors, contacts, coils, leads, transformers, timing devices and solid state components

Selector - electrical and mechanical drive components, cams, contacts, relays, resistors, leads and transformers

Resistance for operating and motor circuits

Magnet Frames

Hydraulic Oil

Hoistway - guide rails, limit switches, traveling cables, hoistway and machine room wiring, hoistway door interlocks, hoistway door hangers and auxiliary closer.

Car Enclosure - removable panels, car gates, plenum chambers, hung ceilings, light diffusers, light ballast, light tubes and bulbs, handrails, mirrors and carpets

Hoistway Enclosure

Hoistway Gates

Doors, Frames and Sills

Cylinders, plungers and buried piping on hydraulic equipment

Accessory equipment - security systems, telephones, closed circuit television

Hydraulic Safety Test - annually

Elevator Pits - kept free of water

Sidewalks, Curbs, Parking Lots and Roadways

Spalling, alligatoring, cracks, pot-holes and sub-base failure - inspect bi-annually

Deterioration and crumbling of curbs - inspect bi-annually



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

Striping and signage - inspect bi-annually

Grounds and Landscaping

Remove trash - daily

Snow Removal - inspect daily (Seasonal)

Lawn maintenance - inspect weekly

Shrubs, trees, edging and drainage - inspect monthly

Fertilize and aerate - twice a year

Amenities

Volleyball Courts - Daily during season; weekly during off season

Fitness Centers - Clean daily, oil equipment weekly according to manufacturer's specification

Tot Lots/Playgrounds - Clean daily. Inspect and lubricate all playground equipment weekly and repair as needed.

Basketball Courts - Clean daily during season, weekly during off season. Check equipment (goal, net etc.) for damage and/or wear each day as well.

All surfaces and equipment - check annually

Clubhouse and Models

1. Check and clean daily

Common Areas

1. Check entry doors, intrusion systems, laundry rooms, exit and emergency lighting, mail



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

stations, handrails, carpeting, lighting, stair treads and risers weekly

Miscellaneous

Fire Extinguishers - Inspect and re-charge by an outside source annually. Hydrostatic inspection every fifth year.

Smoke Alarms - Inspect and change batteries twice a year.

Sprinkler systems - Test annually.

Intrusion Alarms - Inspect bi-annually.

Compactors - Clean weekly and inspect monthly.

Dumpsters - Clean and inspect daily for cleanliness and weekly for mechanics including fencing.

Carpets - Inspect and vacuum weekly or more frequently if needed.

Fencing and Retaining Walls - Inspect twice a year. Water seal natural wood surfaces every two years.

Extermination - Inspect weekly as needed.

Energy Conservation

Many preventive maintenance measures have a major impact on energy conservation – furnace filter changes, monitoring leaking faucets, re-caulking, cleaning air conditioner condenser coils, checking seals on thermal panes, inspecting exterior door closers and so forth.

The effective, ongoing administration of the entire preventive maintenance program can play a major role in reducing unnecessary utility costs by monitoring the property for areas of wasted energy. A careful review of utility bills can help you determine if there are any patterns of waste or deviation from normal usage on your property.

The utilities you are concerned about are gas, electricity, water, and sewer. Common areas



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

of the property that are available to your residents, but where utilities are paid by the property will need to be carefully monitored. Utility costs in vacant apartments should be also monitored very closely.

Thousands of dollars are wasted every year due to a lack of effective energy management. Every Team Member must be "thinking efficiency" at all times. Promoting our Preventive Maintenance programs combined with a Team effort from all of us can help to dramatically reduce our costs in energy use. You would be surprised to learn just how much operating budgets benefit from a strong energy conservation program. Listed below are guidelines that must be adhered to in order to comply with company energy conservation standards.

Common Areas:

Your exercise room, laundry room, garages, storage rooms, clubhouse, tennis and basketball courts or recreational areas all use electricity and possibly gas and water as well. When these areas are not in use, you need to ensure that the lights are out, and the heat or air conditioning is set to a minimal. Adjust gas for efficiency in common areas such as laundry facilities. Leaks from outside faucets or other plumbing fixtures are considered a priority and must be repaired immediately. Hose bib locks should be utilized whenever spigots are not in use.

Vacant Apartments:

Vacant apartments can cost the property in both lost rent and utilities. When inspecting a vacant apartment, turn off as many circuit breakers as possible. Depending on your climate, you will need to maintain the heat at a level to prevent pipes from freezing. The vacant unit walk log is to be left in each vacant unit to be checked weekly. Anyone entering the unit (including vendors) must sign and date the log.

When determining the proper energy level for vacant apartments, consider such factors as location of the unit, number of outside walls, occupancy status of surrounding units, etc. When possible, turn off gas to the pilot and turn off electricity at the circuit breaker.

Also consider flipping the circuit breaker on an electric hot water heater and turning down the settings in the refrigerator to the lowest setting.

All lights must be turned off in the vacant and model apartments when not in use.

Contractors should be put on notice and must be held accountable for any lights and HVAC that may have been left on while completing vacant apartments.



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

Electric Costs:

Every apartment must have electricity that is functional. You cannot control the way residents use the electricity, but you can educate them in ways to save money by conserving energy. An energy audit is the best method for educating residents. To conduct an audit, you should check the following:

- Entry door seal and weather stripping
- Windows and window frames
- Furnace/air conditioner filters (clean or replace as necessary)
- Refrigerator and freezer seals
- Insulation
- Temperature setting on hot water heaters
- Mineral deposits on electric water heater elements
- Appropriate bulb wattage (recommend energy efficient bulbs, where appropriate)

Exterior lighting should be controlled by either timers or photocells. Timers should be checked to ensure that they are appropriately set for the time of year. Photo cells should be checked to ensure that they are not obstructed by debris or landscaping. If either timers or photocells are not functioning properly, lights may be coming on at inappropriate times of the day causing electric costs to go up needlessly. Outside lights which are on in the middle of the day are wasting money.

Water Costs:

You have hundreds of faucets located throughout the property. The property is generally responsible for bearing the cost of all water and sewer bills. Most residents know they are not responsible for these bills, so they may not report a leaking faucet or a running toilet. Since, in many municipalities, sewer costs are computed as a percentage of water usage, wasted water can actually cost your property twice the cost of the water itself and the sewer surcharge as well.

You can educate residents and staff members to be aware of leaks. When performing any maintenance in apartments be sure and check out all faucets and toilets. Stop, look and listen for evidence of water problems.



DORCHESTER MANAGEMENT

OPERATIONS MANUAL

All plumbing supplies and fixtures must be equipped with water saving devices, (showerheads, aerators, toilets) with a 1.5 GPM to 2.5 GPM flow.

Outside faucets should be checked daily during a property inspection to make certain they are not leaking. Prevent the unauthorized use of outside hose bibs by either removing the handles or using different hoses and spigot threads.

Other Energy Savings Initiatives:

There are a number of opportunities to save on utilities through careful planning and wise expenditures. Discuss the following options with your District Manager and ownership representative:

Retrofit incandescent lights with energy-saving fluorescent or “PL” lights and ballasts. The initial cost to purchase the fixtures can frequently be recouped in less than a year through energy savings. LED fixtures and light bulbs to be used when applicable.

Install water-saving devices in faucets, shower heads and commodes.

Ensure that the rates being charged by your local utility companies are the proper rates and are the most economical offered for your property's type of service.

Install ceiling fans in common areas to circulate air.

Reducing the utility costs on your property should be a constant focus. Efforts made in this area to reduce consumption and control costs can substantially reduce expenses on your property.

SUMMARY

Preventive maintenance is the cornerstone of a successful property. However, preventive maintenance must be performed according to a strict schedule and an organized system, and the system must meet the property's needs and resources. When developing your preventive maintenance program, consider the following important variables: staff size, property age, geographic locations, traffic location, traffic patterns, skills and resources of your staff, availability of outside contractors, and maintenance requirements of your equipment.

