



Window & Door Preventive Maintenance

By Howard McKew, P.E., C.P.E.

This month we want to offer up some useful inspection and maintenance tips for exterior windows and doors beginning with windows. In this column you will be able to download a [“window and door survey checklist”](#).

Exterior Windows

During the heating season your windows will allow interior space heat loss to the outdoors faster than exterior walls, basement foundation walls, and roofs. Whether the windows are single pane glass enclosed with a storm window or more efficient double pane thermally efficient windows, the heat is still going to be lost to the outdoors at a faster rate than the other structural surfaces of the building.

Knowing this, it is essential that these windows receive the maintenance needed to keep them in good operating condition. The time spent will contribute to minimizing energy consumption while contributing to saving on fuel cost.

For surveying exterior windows, we have inventoried the following tasks to check and when to do so, starting with cleaning the interior side of windows monthly. Outside window cleaning should be done semi-annually when the outdoor weather is comfortable, not too hot and not too cold. Also take a close look at the screen that is part of the window assembly and make sure it receives a good cleaning using the same window cleaner liquid. When performing the cleaning, one should inspect the glass for cracks and deterioration of the caulking around the glazing while inspection of screens should be to identify any rips, tears, or holes and replace the screen



when necessary.

Annually, if not semi-annually the window sash lock should be checked for tightness and to make sure the upper and lower sashes fit snugly when the window is in the locked position. If the window has an interior lift handle feature, this should be checked for tightness as the lift handle screws can become loose requiring tightening the screw(s) back into the window sash frame.

Prior to heading into the heating season each window should receive a second inspection as follows:

- Opening and closing the window to make sure the upper sash and lower sash (on double-hung windows) spring loaded mechanism is functioning easily. Note, when closing the window, do not push down hard on the lower

sash or push up hard on the upper sash because the pressure could result in damage to the window sash and/or the glazing.

- Many exterior windows come with a slim fiber weather strip lining on both vertical sides of the upper and lower sashes and also across the center rail where these two window sections come together. There may also be a thin weather strip across the bottom of the lower sash and across the top of the upper sash. These contribute to the tightness of the window restricting cold, outdoor drafts from infiltrating the interior space. If a liner is damaged or missing, it should be replaced.

When inspecting exterior windows do not overlook the interior shading assembly which may be curtains hung in front of the window or window blinds also located in front of the window to restrict the solar glare and thermal heat gain that can impact the room's space temperature. During the summer, shading of the solar heat gain can contribute to reducing the air-conditioning required and its associated energy operating cost by limiting the solar heat gain from reaching further into the occupied space.

Curtains and blinds, in front of the window, can also help protect the finish of a hardwood floor from fading or preserves the color of a rug from "bleaching out". At the same time, in the heating season, solar heat gain can contribute to warming the room if the curtains or blinds are left open to allow the sun's energy into the space. Just remember to close the curtains or blinds after the sun has going down because the shade or blind can then contribute to reducing the heat loss to the outdoors during the cold evenings.

During the semi-annual inspection of the windows, the shades and blinds should also be checked to make sure they are in good operating condition and their appearance will not be a distraction.

The outside of windows should be inspected at least once a year to assess their condition. The

exterior windowsill can deteriorate faster than the rest of the window frame if it is a wood sill. The next most common window material is vinyl that may need annual cleaning of the surface.

Wooden framed windows exposed to the weather require more attention with the inspection checking condition of the wood, e.g., rotting of the wood, deteriorating caulking, scraping of the wood so that a new coat of paint or stain can be added; wood jamb and/or header not secured flush to the building with the edges of this wood curving out from having had the wood absorb moisture; and, making sure the entire assembly is installed tight to the building and sealed with exterior rated sealant.

Exterior Doors

Doors on the outside of a facility are usually constructed of wood, metal, or vinyl with no glazing, some glazing, or full glass sliders. These door assemblies may also have a metal or aluminum storm door, as well as a screen attachment to this secondary door.

Prior to the heating season exterior doors should be checked in a similar manner as exterior windows including:

- Cleaning both the interior and exterior surfaces including the glass, monthly.
- Storm doors with screens and glazing should receive a good cleaning too, using the same window cleaner liquid.
- Inspect the glass for cracks and deterioration of the caulking around the glazing.
- Inspect screens for rips, tears, or holes and replace the screen when necessary.
- Inspect the door for tightness. Hinged doors or sliders and slider tracks (top and bottom rail) should be clean so the door or screen slides smoothly.

- Inspect door locks for ease of operation.
- Door hinges should be checked to make sure each hinge is securely screwed to the door jam.
- Weather stripping attached to the door (top, sides, and/or bottom of each door should be inspected for wear and tear that may require replacement of the weather stripping. The same should be done to weather stripping that is secured to the door frame rather than the door itself.

In the Fall, wood exterior doors should be inspected with an eye towards repainting or re-staining. If the door is not wood, it should at a minimum receive a thorough cleaning to remove dirt, stains, etc. semi-annually.

Both exterior window and door proactive maintenance contributes to and is essential for keeping the building tight thus reducing the potential for outdoor infiltration of dust, dirt, and cold and hot weather. For the one using the survey checklist, we encourage you to also take photographs of the existing conditions to assist in the authorizing of work that needs to be completed. Remember, a “A picture is worth a thousand words” especially included with a completed checklist.

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