



Window & Door Replacements—What to Know

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It is not often that an exterior window needs to be replaced unless building management is initiating an energy conservation project replacing antiquated and inefficient windows, initiating a modernization project to upgrade the value of the facility, or it is going under major renovations and new windows are required for an addition to the building.

When that time comes there are several things one needs to know about windows, and they are:

- **Style:** Selecting the optimum style that is ideal for the space application and/or interior design, as well as the optimum exterior façade.
- **Affordability:** Determine the window replacement budget and choose products that provide optimal value.
- **Energy Efficiency:** Selecting double pane and a Low-E (low thermal emissivity) coating that will reduce heating and cooling costs while contributing to interior occupant comfort.
- **Intrusion Prevention:** Selecting windows with or without Intrusion Detection System (IDS) wireless monitoring system, reinforced glazing, or other glazing to provide maximum security.
- **Window Durability and Sustainability:** Products that are not susceptible to degradation structurally or through fading of the window system finish/color and the ability to maintain the product over time.
- **Easy to Clean:** The ability to clean the exterior glazing from inside the building.



- **Tight Seals:** Maximum and sustainable infiltration protection seals/gaskets because infiltration into the facility can be a significant heating cost, e.g., 20% of window energy loss can be due to infiltration.
- **Noise Insulation:** A consideration based on the location of the building and the noise levels outside e.g., close to railroad traffic.
- **Aesthetic Appeal:** A consideration in sync with “Style” noted for above optimum exterior façade, as well as interior space.
- **Functionality:** With a diversity of potential features, e.g., ease of opening and closing the window, ability to allow natural outdoor air into the space, etc.

- **Ultraviolet Light Protection:** UV coating/treatment can contribute to preventing solar damage to floor, rugs, and furniture.
- **Installation:** Easy-to-install can be cost effective, as well as a possible “Do-It-Yourself” project. Also important to note is the estimated length of time to install in coordination with the interruption to the occupied space schedule.
- **Delivery Time:** Important to consider when planning a window project.
- **Emergency Egress:** Life safety may play an important role in the window selection when fire escape element is part of the window selection process.

Excluding skylights, new window and replacement windows have a single purpose— providing a view to outdoors with the option to be operable allowing fresh outdoor air into the facility. Like the windows mentioned above, it is not often that an exterior door or interior door needs to be replaced unless the building is going under major renovations or new addition but when the time comes, interior and exterior doors have a wide variety of styles and applications.

Commercial and residential door types include:

- Main outdoor entrance doors with a significant assortment of styles, e.g., Tudor design, contemporary design, etc.
- Side and rear entrance doors including roll-up door applications
- Interior doors including but not limited to French doors, UL listed/rated door, etc.
- Doors with and without glazing
- Metal and wood doors
- Garage doors

- Single and double-hinged doors
- Door hardware e.g., handles, locks, wireless keypad, remote control, etc.

When that time comes to invest in new or replacement doors and, similar to window selections, there are several things one needs to research about replacing doors and/or adding doors and they are:

- **Style:** Selecting the best style that will match the building exterior. Same with interior doors, e.g., raised panel, flat, hollow panel, etc.
- **Affordability:** Determine the optimum door value for the price.
- **Energy Efficiency:** Selecting an insulated exterior door versus a solid wood door.
- **Intrusion Prevention:** Selecting a door(s) with or without IDS wireless monitoring system, reinforced glazing, etc. along with or without security hardware and software measures.
- **Durability and Sustainability:** Products that are not susceptible to degradation structurally or through fading of the exterior finish/color and sustainability of the product over time.
- **Easy to Clean:** The ability to clean and/or power-wash the exterior.
- **Tight Seals:** Maximum seal/gasket protection from the weather.
- **Aesthetic Appeal:** A consideration in sync with “Style” noted above that will contribute to exterior façade, as well as interior space.
- **Functionality:** With a diversity of potential features e.g., ease of opening and closing the door, ability to accommodate a storm door or screen door.
- **Installation:** Easy-to-install can be cost effective,

as well as a possible “Do-It-Yourself” project especially pre-hung doors (door that's sold by the manufacturer “ready-to-go”). Also important to note is the estimated length of time to install in coordination with the interruption to the occupied space schedule.

- **Delivery Time:** Important to consider when planning a door project.
- **Emergency Egress:** Life safety may play an important role in the door selection(s) when it comes to fire or smoke interior zone containment, interior emergency egress, and egress to outside door.

The hardware for the various doors, whether interior or exterior can be almost as diversified especially in this digital age when ease of access, life safety, keyless pads, and virtual assistant technology continues to improve and expand.

In summary, window and door replacement require a lot to research as standard products take into account the impact by the environment, sustainability, and technology.

References:

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