

WINDOW WALL

WHY WINDOW WALL? - ADVANTAGES

Because curtain walls install in front of the slab and window walls span slab-to-slab there are advantages of the window wall:

- Cost
- Schedule
- Quality
- Risk
- Compartmentalization
- Acoustics

WINDOW WALL - COST

Window walls offer cost savings in material, labor to install and caulking for weathering when compared with curtain wall systems. The overall project cycle can be compressed, this facilitates the total construction schedule by allowing the exterior facade of the building to be enclosed by floor versus by elevation. This also contributes to the overall project savings.

WINDOW WALL - SCHEDULE

Window wall systems offer shorter overall schedules since the units are pre-fabricated at the manufacturing facility. This allows for quicker installation and overall building close-in. The exterior facade of the building can be enclosed by floor versus by elevation allowing other trades to start their work sooner.

WINDOW WALL - QUALITY

Quality is greatly improved with window wall systems as compared to site-built curtain walls because all frames are fabricated, assembled and glazed in the controlled environment of the manufacturing facilities. This enables in-house quality control standards that can assure that the final product meets expected performance requirements.

WINDOW WALL - RISK

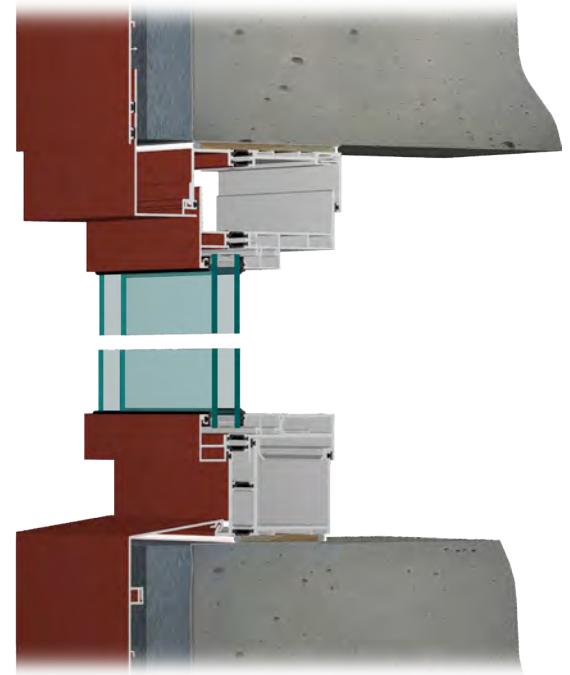
Product performance risk is reduced by providing consistently fabricated window and door units within the factory controlled environment. The highly reliable manufacturing processes produce uniform, quality products that often are pre-tested before they leave the factory.

WINDOW WALL - COMPARTMENTALIZATION

Window walls compartmentalize issues between floors. If area repairs are required, they can be carried out with minimal disturbance to the overall building. The compartmentalization also decreases sound transmission between floors.

WINDOW WALL - ACOUSTICS

Unlike curtain walls, window walls enhance sound attenuation by eliminating continuous members that span the building height. Those members might resonate sound that originates at lower levels and emit it through the interior tube of typical curtain walls. Reduced sound transmission adds to the multi-family application advantages.



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WINDOW WALLS - BACKGROUND

Window walls are one of the largest growing segments of commercial construction as it pertains to the window industry. The trend in the mid to high-rise new construction market has shifted toward residential and mixed use applications. People want living spaces to have a residential feel versus that of an office. To meet the market requirements of aesthetics, ventilation, flexibility, cost and speed, Graham has developed a window wall system as a design alternative to conventional curtain wall. Window walls can offer design features to meet these expectations such as various ventilating styles from projected casement to sliding windows, as well as terrace and sliding glass doors, all seamlessly integrated in the design.

Our window wall is a factory-glazed window (and sometimes door) unit that is installed between the floor slabs of multi-story buildings. When the floor slabs edges are covered on the exterior with aluminum slab covers, the resulting appearance is that of curtain wall. A curtain wall is on the outside of the structure whereas a window wall sits between the floor slabs at the outer edge. In other words, it is a curtain wall but broken at every floor slab. Commercial high-rise office buildings typically use curtain wall while residential high-rise towers are starting to use window wall.

A typical make-up of our window wall is 80-to-90 percent fixed windows, with some awning or casement vents, as well as some patio or terrace doors. The preferred designs utilize dry glazing and are factory glazed from the interior. Window wall projects need to be self-mulling at the jambs with a positive snapping action that allows for movement from the floor slabs. The windows are usually very large due to the fact that they span floor to ceiling. A critical component of the window wall system is a two or more piece slab cover that is part of the head receptor as well as the sill starter that is for the floor above. This ties the system together to give the appearance of one continuous system spanning each floor.

Our current window wall design allows us to change glazing thicknesses from 1", 1 ¼" and 1 ½" by simply changing the size of the thermal struts. We have incorporated some of the assembly techniques that we currently use in our European style unitized receptors, and have included a Euro Groove for the operating vents for easy assembly and versatility of hardware. The glazing area will be pressure-equalized similar to our curtain wall products, meaning it will be allowed to breathe, which allows the water to flow out without being drawn into the interior during testing.

