

## The Architectural Vision – Honoring a Proud Aviation Heritage, Embracing the Future of Flight

The Pratt & Whitney Engineering & Technology Center was envisioned as a structure which would respect Pratt & Whitney's history and support their position as a world leader in aircraft engines. This five-story building of approximately 425,000 square feet occupies a position on the campus in close proximity to the historic Hangar/Museum and the Customer Training Center. The building is intentionally placed as the "gateway" to the North Campus, reinforcing the notion that the Pratt & Whitney story began with innovative engineering.

The early phases of the campus were built in the late '20s and early '30s and are considered Art Deco in style. The aviation industry heavily influenced design during the Art Deco period by providing an aerodynamic inspiration. The architecturally significant buildings, such as the Main Admin Building, the South Admin building, the Hangar, the Power House, as well as a number of the older manufacturing buildings are from this period. In keeping with the Art Deco style, the composition of the exterior facades of these finely detailed brick masonry buildings tend to have a vertical emphasis rather than a horizontal one. A number of the details found in the facades of the Main Admin building were carried over into the design of the brick masonry elements of the new building.

These brick masonry elements appear as five-story end caps or "book ends" on the three short sides of the façade of the new building, and are meant to represent the engineering history. The glass and aluminum elements of the façade, which are supported by these masonry "book ends," represent Pratt & Whitney's place as a modern, high-tech aerospace company that is leading the way. It is not an accident that to enter the building one must pass through one of the masonry elements of the façade, reinforcing the notion that Pratt & Whitney's future is grounded in its long engineering history. This notion is reinforced again with the main entrance to the building, which is covered by a canopy of glass and aluminum, supported by a series of tube steel moment frames rotated at progressively steeper angles. As one enters through this contemporary sculptural element one also passes through a massive masonry arch.

There are other subtle details found on the exterior of the building which provide an aeronautic reference. Following the vertical lines of the curtainwall element of the building, the aluminum trellis that is composed of a series of foils in the shape of a wing or blade becomes visible. Mill-finished aluminum and brushed stainless steel are used as the finish for many of the exposed elements found in the interior of the building. It was not possible to utilize the exotic alloys and composite materials that are used in Pratt & Whitney's products; however, it was important to use materials that are commonly used in the aerospace industry throughout the building.

Most of the common amenities as well as a majority of the support space to maintain the building are located on the first floor. The upper four floors are designed in two relatively narrow wings to maximize available daylighting for both the open office space as well as for enclosed offices and meeting spaces. A majority of the workspaces are never more than 35 feet from the glass at the perimeter of the building.

The building and the site were designed with energy conservation in mind. Through the careful selection of materials and the use of innovative systems and technologies, the Pratt & Whitney Engineering & Technology Center is being considered for LEED Gold certification.

From the architectural firm of Clohessy Harris & Kaiser, LLC, edited for style and length

