Cutters Crabhouse Restaurant-Infrastructure Upgrades

Case Study

Cutters Restaurant is a 400 + seat restaurant and bar and is one of Seattle's finest. Located next to Pike Place Market, the site provides amazing views of Eliot Bay and the Puget Sound. It is owned and operated by Restaurant's Unlimited, who specialize in high end restaurants and have over 21 branded restaurants in over 48 locations throughout the United States.

This specific site is located on the ground level of a 7 story, two building, 130,000 SF office complex. The office complex sits atop a large parking facility. The parking structure works as a retaining wall to provide a platform for this site situated on the highly sloped lot adjacent to both Pike Place market and Hwy 99.

Grease hood removed and retrofitted so it could be reused.

Hunt Engineering was hired by Restaurant's Unlimited to help them address the challenges of an aging infrastructure. Our first involvement on the project was to help with the grease exhaust system.

Original exhaust fan and duct work.

One of the 3 large cooklines supported by the exhaust system upgrade.

The kitchen includes multiple cooklines, each cookline is supported by a type 1 grease hood. The ductwork that connects to the three large hoods is routed vertically through 5 floors to the roof. The ductwork system was failing in several locations.

Hunt Engineering provided the technical expertise and project leadership to assess

New exhaust fan and duct work.

the situation. Once the significant nature of the problem, and the required replacement was determined, Hunt Engineering had project meetings and closely coordinated our work with all concerned parties including: Cutters Restaurant Operations, Restaurant's Unlimited facilities group, the building manager, and the building's consultants.

As a result of this coordination, short term fixes on the exhaust system were allowed. This permitted the major work to be coordinated with a planed updated of the interior dinning space.

During the process of working with the exhaust system another major issue arose. Because of capacity, demand and energy concerns, Cutters was required by the building owner to separate their HVAC system from the main building systems which served the large complex. In a large facility, with zero lot lines, and multiple floors above, this was a very significant challenge. Ultimately Hunt Engineering was able to maintain the existing HVAC system in the restaurant, which included 11 water source heatpumps, and all associate ductwork. We engineered a small central plant for the restaurant. The central plant was able to be located in parking stalls in the parking garage several floors below the restaurant.

The final project included the complete replacement of the grease exhaust system through 5 floors and to the roof including a new exhaust fan; a new make up air system for improved ventilation; and a dedicated central plan with multiple boilers and dry coolers to service the restaurants water source heatpumps.

The new central plant. Key components include 97% efficient gas boilers, redundant pumps and dry coolers.