

New Rooftop Units for Mount Vernon High School

HEI Engineering Group and the Mount Vernon City School District had a busy summer with a maintenance project at the district's high school replacing 20 roof-top units that were originally installed in 1991.

Many of the existing roof-top units were "cooling only" units with heating being provided by hydronic duct coils at each zone. Due to the summer construction timeline, it was necessary to specify a roof-top unit with a shorter lead time. We learned that "cooling only" roof-top units are not standard and are considered to be more of a custom style unit. In contrast, cooling roof-top units with gas heat are not only a standard stock item, but also less expensive.

On this project the decision was to specify the standard cooling units with gas heat since it was very easy to tie-in to the existing gas line that was routed along the roof without extensive runs of new gas piping. The new roof-top units operate the same as the original units, but now if the boiler plant should fail, the units can provide backup heat. Custom roof curbs, exterior ductwork, gas piping extensions, digital temperature controls, fire alarm panel and associated electrical distribution were also included in the project scope of work.

HEI USEFUL TECH NOTE:

The life expectancy of a roof-top unit is approximately 25 years. Schools typically plan for such replacement projects in the summer months, when classes are not in session, which causes an increase in demand from the equipment suppliers. Even though the roof-top units we specified were considered a standard "stock item", the lead time during this busy season was about eight weeks. Therefore, we recommend that such an HVAC project be awarded no later than early April to ensure the contractor sufficient time for equipment procurement.





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