

## WOODWARD ACADEMY – ATHLETIC COMPLEX

## HVAC SYSTEM DESCRIPTION

The entire building is heated and cooled using roof-top units with gas heat. Separate units are provided for each major space or thermal zone in order to provide a good comfort level in any space in the building.

The system is controlled by a computer operated energy management system. Both occupied and unoccupied temperature settings are controlled through the energy management system as well as occupancy times.

The Natatorium is conditioned using a Pool-Pack unit which heats, cools and dehumidifies the swimming pool area as well as providing heat for the pool by using heat rejected from the unit.

Outside air is provided in accordance with ASHRAE 62.1-2007 using the Indoor Air Quality procedure. This procedure allows a reduced amount of outside air to be introduced and the building air is cleaned using ionization devices.

Outside air is introduced into most spaces through the roof-top units however, in areas which require large amounts of ventilation air such as the locker rooms, outside air is introduced using Energy Recovery Units. These units use room temperature dry air being exhausted from the building to pre-heat or pre-cool the incoming outside air. They also use mechanical refrigeration to dehumidify the outside air.

The mechanical contractor, Tebarco Mechanical Corporation, did an excellent job of installing the system and the owner has been well pleased with the results.

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