

OLYMPIC MIDDLE SCHOOL HVAC System Assessment



Completed for:



March 4, 2021

Site Visits, Analysis & Report by:
Metrix Engineers
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SCOPE

Metrix Engineers was hired to perform an assessment of the existing heating, ventilation and air conditioning systems at the Olympic Middle School site in Auburn School District. The goal of the assessment was to provide an executive summary level of detail regarding the type and condition of the existing mechanical systems, determine if the systems are operating in compliance with their original design intent, and identify any areas of improvement based on site observations.

Olympic Middle School is a new two-story facility completed in 2019. The building is approximately 106,000 square feet with classroom wings, a central admin, commons, gym, aux gym, locker rooms, library, shop, and corridor connecting the wings.

A site walk was conducted on February 24, 2021 to review the existing mechanical systems. This report summarizes Metrix observations based on that visit.

EXECUTIVE SUMMARY

The building appears to be operating per its original design intent. No operating points of concern were observed and no spaces have been modified beyond the original design intent.

EXISTING SYSTEM OBSERVATIONS

HVAC:

A central gas fired boiler plant comprised of two high efficiency 2,500 MBH gas fired boilers is located in a dedicated boiler room. Heating water is distributed to the building via two central system pumps also located in the boiler room. A central cooling chiller with a cooling capacity of 250 tons is located on grade in the service yard. Two central systems pumps located in the boiler room distribute chilled water throughout the building.

Classroom heating, ventilation and air conditioning are provided by heating water convectors located at the exterior walls, and displacement ventilation grilles located at interior walls. The displacement ventilation grilles are served by VAV boxes and mixing air handling units located at the mechanical platform and supply warm or cooled air. Heating, ventilation and cooling of the administration spaces are provided by an overhead variable air volume (VAV) system, with the VAV's and dedicated air handling units at the mechanical platform. The science rooms are served by individual air handling units that provide heating, cooling and ventilation to the spaces via displacement ventilation grilles. The ventilation air is served to the air handling units from a central heat recovery unit. The gym, commons, library and kitchen and are each served by a dedicated air handling unit, providing heating, cooling and ventilation.

A spot check of various HVAC system components was completed during the site visit, including the internals of various air handling units and heat recovery units. All heating and ventilation systems checked were verified operational with no major issues noted.

All classroom systems and spaces appeared to be meeting or exceeding designed outdoor airflow ventilation rates. The only space observed without supply or ventilation air was the phone room in the Staff Lounge.



Controls:

Building automation system controls are new Honeywell controls. No operational points of concern were observed.

A review of the Building Automation System and outside air damper setpoints was conducted and all systems and spaces appear to be meeting or exceeding design outdoor airflow ventilation rates.

During control system review, only one space temperature deficiency was identified at TU-31 serving Receiving. It is likely the doors were open to the space during this time.





Olympic Middle School
HVAC System Assessment Notes

Note	Additional Notes		Estimated Completion Date	Final Completion Date
		No deficiencies found	No action planned	

Revision Date 3/11/21