

PART VI

APPENDICES



The San Mateo-Foster City School District educates, inspires and empowers every student in every school every day to live, lead and learn with integrity and joy.

HVAC ASSESSMENT REPORT

by Cypress Engineering Group

*San Mateo - Foster City
School District*

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Types of Current Systems

(A) Classroom Furnace Enclosure

Currently, most classrooms are served by Furnaces housed in Enclosures.

These furnaces have a return plenum underneath, with code-required ventilation (Outside Air) provided by an exterior louver ducted to the return plenum.

In most cases, the supply plenums are also provided with multiple supply registers for air distribution.



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Similar Enclosure in another school site.



Outside air openings at some sites are smaller.
In these cases, Outside Air CFM readings may be less than the current code-required ventilation rates for new equipment.



Existing filters are 1" Merv-11 and located under the furnace, which require the furnace front panel to be removed in order to replace the filter.

Some sites have 2" thick filters.

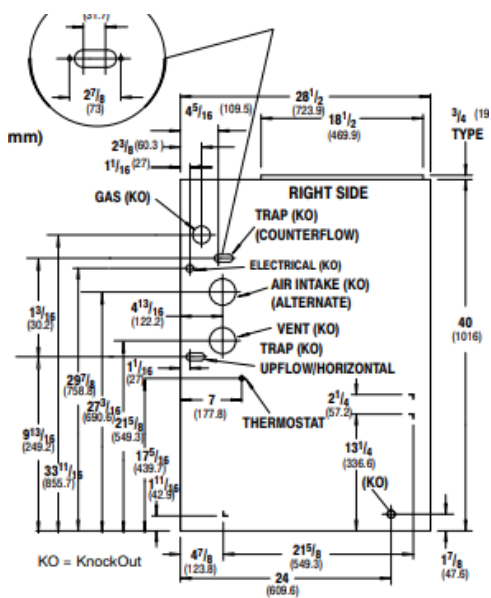


(B) Furnace Enclosure with AC

The enclosure shown here is the approximate size required for new furnaces (~33"). Cooling coil is on top of the furnace.



Size of the existing furnace (It is about ~40")
e.g. Baywood ES



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(C) Furnace Closet, Cooling Coil and Outside Air

Furnaces in Library and Computer lab room are located in a closet with conventional doors and have cooling coils connected to outside Condensing Units.



This example is very common where the library is located in a finger-plan wing style building.



Conventional air conditioning condensing units with protective cages are located outside of these facilities.

Top picture: George Hall ES.

Bottom Picture: Laurel ES.



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(D) Furnace Closet (Ducted Supply)

Foster City Elementary School was rebuilt almost 10 years ago.

Each furnace is located in a site-built, framed enclosure with conventional half door with conventional hardware.

An oversized return plenum is located under the furnaces and outside air is also connected to this return plenum.



Exposed Supply ductwork is located above the furnace between the high and low windows.



(E) Rooftop Package Unit (Gas Heating / Electric Cooling)

The George Hall Administration building (most admin buildings at other sites as well) are served by rooftop packaged units (RTUs). These RTUs are gas-fired heating units with electric DX cooling.



At Laurel ES, the staff room in the MPR building is served by rooftop packaged unit (RTU)



At Laurel ES, the administration building is served by rooftop packaged units (RTUs). These RTUs are gas-fired heating units with electric DX cooling.

A split system on the walkway is not shown on record drawings. It must have been added later.

