

## Summary of Mechanical Scope:

### **Replacement of classroom console heat pumps:**

Existing console heat pumps will be replaced with new high efficiency units.

Three existing Venmar Energy Recovery Ventilator will have packaged controls removed and replaced with Johnson Controls to allow for full unit control and monitoring by the Centralized building automation system at the District Office. The unit currently has packaged controls from the manufacturer which are very limiting to the Owner to adjust set points or operating conditions to improve function related to actual building conditions.

A glycol feeder and propylene glycol will be added to the existing geothermal loop system to bring the system up to 25% concentration. The glycol will allow us to adjust the loop water temperatures downward slightly to reduce the run times on the electric boiler both saving energy and mitigating concerns about frosting of coils in the heat pumps.

Large main restroom groups will have exhaust fans added to allow for off hours exhaust of these spaces if the energy recovery ventilator is not running. Currently all exhaust is through the energy recovery ventilator. By adding the exhaust fans, the restrooms could be exhausted at night without having to run the large energy recovery ventilators.

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