

Summary from Dan McCurdy and Greg Stahler

General scope of work:

Capron:

- Remove existing unit ventilators
- Replace existing outside air intake louvers with new louvers in existing openings.
- Install new units where the existing were removed.
- Add relief air systems to allow for the removal of stale air.
- Connect all new units to the Johnson Controls Metasys system.

Manchester:

- Remove existing unit ventilators
- Replace existing outside air intake louvers with new louvers in existing openings.
- Install new units where the existing were removed.
- Install new units in new locations in the lower level.
- Add relief air systems to allow for the removal of stale air.
- Connect all new units to the Johnson Controls Metasys system.

Middle School:

- Remove and replace existing unit ventilators and outside air intake louvers in the two far west classrooms.
- Remove existing finned tube radiation at the exterior walls in all other classrooms.
- Create new openings in the exterior walls and install new outside air intake louvers.
- Install new units in new locations.
- Add relief air systems to allow for the removal of stale air.
- Connect all new units to the Johnson Controls Metasys system.

Poplar Grove:

- Remove existing unit ventilators
- Remove existing outside air intake louvers, enlarge openings and install new larger louvers.
- Install new units where the existing were removed.
- Add relief air systems to allow for the removal of stale air.
- Connect all new units to the Johnson Controls Metasys system.

Existing unit condition:

- Units were typically more than 50 years old. Typical service life is 25 years.
- Existing outside air intake louvers had been covered due to failed pneumatic controls.
- Repair parts were no longer available.

New unit installation:

- Units installed by Ceroni at Capron are standard units which require specific dimensions for the outside air intake louvers.
- New units install by Hartwig include a false back which allows the unit to be installed with different louver dimensions and locations.
- The seal between the back of the unit and the wall is critical to avoid outside air infiltration into the unit. The units are equipped with gaskets to provide this seal.

Current unit installation:

- Installation aspects of units was discussed at the preconstruction meeting.
- New unit installation was reviewed three times during the summer.
- Deficiencies were noted and corrected by Hartwig after each review.
- Installation was again reviewed in February when the temperatures outside were cold enough to test the seal between the wall and unit.
- A total of four units were found to be not sealed properly.

Recommendations for Next steps:

- Start up should be completed to verify unit operation.
 - All sensors are tested for correct operation.
 - Operation of the outside air intake damper and control valve is verified.
 - System setpoints are verified.
 - Commissioning can only test equipment. Any deficiencies would need to be corrected by Trane under warranty.
 - Start up service would include adjustments and repairs.
 - Any defective equipment would be covered by the Trane warranty. Trane would need to be contacted with specifics (unit location, serial number, defects, etc.) to schedule repairs.
- Wall repairs for the four units with defective seals should be completed

Warranties:

- Hartwig warranty is in effect until August 2025. Any issues related to the installation of the units would be covered until this time.
- Trane warranty is in effect until October 2024. Internal issues with the unit ventilators would be covered by this warranty
- Any modifications to the unit installation should be performed by Hartwig to keep their warranty intact.