Jack Fenny

From: Vincenzo Michienzi

Sent: Thursday, January 12, 2017 3:42 PM

To: Jack Fenny

Cc: Phil Gagnon; John Fodera; Jeremy Storm; Matt Mancini

Subject: Ames Street Residential Riser 01 CW & FO Riser Thermal Analysis

Jack,

Please see box link below for the Ames Street Residential Condenser Water and Fuel Oil Riser drawing pdf titled "363000_HP-Riser01_CW&FO_Install" and its corresponding cad file.

Box Link:

https://cannistraro.box.com/s/6e3d2xe6niiut2hcln3kwg37vsh6f8j2

These risers consist of a Condenser Water System and a Fuel Oil Riser System. The Fuel Oil Riser starts within the basement and then is express to the roof-Level 24. We are looking to just support this piping with a riser clamp on the concrete slab at every other level, if this is overkill please let us know. The fuel Oil portion on the roof has yet to be coordinated. The Condenser Water System is fed from Level 23 and runs down to level 01. There is an offset of the piping on level 22, that you will see when referencing the install drawing. There are small piping runouts that are needed on levels 05 thru 01 to feed horizontal and vertical heat pumps. The building is a concrete structure, where we are sleeving at every level. We plan to anchor the riser in the middle at level 11 with a custom pipe stand anchor that has been detailed for you as detail A-01, and to utilize the sleeving as guides. Also, within the box link is a water riser flow diagram M-402 for your reference, please ignore the components in the red hatch.

Please note that the flow diagram on M-402 also suggests that the condenser water riser is to be anchored at the top and bottom, and an expansion loop is recommended in the middle of the riser.

We are looking for the following analysis on these risers;

- 1. The elimination of the Anchors at the top and bottom, and the expansion loop.
- 2. The qualification of the support methods for the Condenser Water and Fuel Oil Systems, and the overall loads at those locations.
- 3. Indication if any spring supports are needed for branch piping, and the load at each spring support, so that we can accurately order the springs.

Jack could you also please provide me with a time table at which you think you can have this complete.

Please call me with any additional questions or concerns.

Thanks,

Vincenzo R. Michienzi

Coordinator-HVAC Pipe

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