Date: July, 12th, 2022

CHILLER REPLACEMENT

Mark Schaufler Director of Water Utilities 1200 SE Hamblem Road Lee's Summit, MO 64081 Heating Piping Air Conditioning Controls Refrigeration Design & Build

Since 1965

Mark,

The following quotes are to replace the existing York YLAA080 chiller with new equipment due the extensive damage caused by the failed heat exchanger. Per our discussions, I have provided you with pricing from Two different chiller manufacturers; York and Carrier. The Trane unit is 15' long and will not fit inside the mechanical area with proper clearance and the doors would not be able to swing open. Due to the smaller capacity size of the chiller, only Carrier will be able to provide the "shell & tube" heat exchanger we discussed in the meeting. York does not offer that option in this chiller size.

Please note the scope of work to replace the chillers is generally the same, the only difference is the Carrier chiller will have the Shell & Tube chiller barrel versus the brazed plate/frame heat exchanger.

Option 1 – Carrier 30RB080 Aqua Snap Air-cooled Scroll Chiller:

- A. Disconnect piping and all necessary electrical power and control wiring from the existing outdoor unit and the indoor evaporator unit.
- B. Flush the refrigerant piping that interconnects the outdoor condensing unit to the indoor heat exchanger with R-11 flush kits and dry nitrogen. Cap off lines as necessary and put a holding charge of dry nitrogen if necessary.
- C. Provide all required crane and rigging to remove the old equipment and set one new Carrier 30RB080 Aqua Snap chiller in place. Provide and build a steel stand for the new shell & tube chiller barrel to set on.
- D. The Carrier chiller comes from the factory as a package chiller. They provide a "remote chiller barrel installation kit" which allows the chiller barrel to be located remotely.
- E. Furnish new refrigerant specialties including two new expansion valves, two new solenoid valves, two new sight glass's and two new liquid line filter driers.
- F. Modify all refrigerant suction line piping and liquid line piping to the new chiller barrel and outdoor condensing unit.
- G. Furnish and install all required 4" chilled water pipe, valves, fittings and instrumentation (we will reuse existing gauges and thermometers).



- H. Once the refrigerant piping is installed and leak tested we will evacuate the refrigerant system down to 750 microns and prep unit for startup.
- I. Provide all required electrical work to reconnect the power and control wiring.
- J. Furnish all required piping insulation to match existing for both chilled water lines and refrigerant suction lines.
- K. Provide BAS subcontractor (Dynamic Controls) to do all required programming to tie the chiller into the existing building automation system. Dynamic Controls installed the original BAS.
- L. Check the chilled water GPM through the chiller barrel and adjust if required.
- M. Provide complete chiller startup and operational systems checkout. Carrier will provide startup assistance for warranty purposes.
- N. Provide all required permits from Lees Summit and the State of Missouri for pressure vessels.
- O. Review project with owner and close out.
- P. Warranty on new chiller equipment: One-year parts & labor

TOTAL NOT TO EXCEED PROJECT COST FOR OPTION 1.....\$144,239.00

Option 2 – York YLAA Air-cooled Scroll Chiller:

- A. Disconnect piping and all necessary electrical power and control wiring from the existing outdoor unit and the indoor evaporator unit.
- B. Flush the refrigerant piping that interconnects the outdoor condensing unit to the indoor heat exchanger with R-11 flush kits and dry nitrogen. Cap off lines as necessary and put a holding charge of dry nitrogen if necessary.
- C. Provide all required crane and rigging to remove the old equipment and set one new York YLAA080 chiller in place. New heat exchanger will set in the same place as existing
- D. Furnish new refrigerant specialties including two new expansion valves, two new solenoid valves, two new sight glass's and two new liquid line filter driers.
- E. Modify all refrigerant suction line piping and liquid line piping to the new chiller barrel and outdoor condensing unit.
- F. Furnish and install all required 4" chilled water pipe, valves, fittings and instrumentation (we will reuse existing gauges and thermometers).

- G. Once the refrigerant piping is installed and leak tested we will evacuate the refrigerant system down to 750 microns and prep unit for startup.
- H. Provide all required electrical work to reconnect the power and control wiring.
- I. Furnish all required piping insulation to match existing for both chilled water lines and refrigerant suction lines.
- J. Provide BAS subcontractor (Dynamic Controls) to do all required programming to tie the chiller into the existing building automation system. Dynamic Controls installed the original BAS.
- K. Check the chilled water GPM through the chiller barrel and adjust if required.
- L. Provide complete chiller startup and operational systems checkout. JCI will provide startup assistance for warranty purposes.
- M. Provide all required permits from Lees Summit and the State of Missouri for pressure vessels.
- N. Review project with owner and close out.
- O. Warranty on new chiller equipment: One-year parts & labor

TOTAL NOT TO EXCEED PROJECT COST FOR OPTION 2.....\$126,282.00

These prices are set for 60-days. Lead time is approximately 25-weeks from date of order.

PROJECT EXCLUSIONS:

- 1. Overtime labor
- 2. Sales tax
- 3. Glycol (not required)

At your service,

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Brian Lippert

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