

## MILLIS TOWN HALL BOILER RENOVATION

**ASSUMPTIONS:**

1. Vent will be separate 4" Sch. 40 CPVC, one per boiler, and can extend to roof within existing metal flue
2. Combustion air can be ducted from an exterior wall within 15 feet of the boilers
3. Estimate is based on 2 Vitodens 500 MBH (input) high-efficiency boilers
4. Controls are supplied by the boiler manufacturer, including outdoor air temperature reset, boiler staging, and firing rate modulation
5. Boiler plant will be all new, including pumps, in-room piping, vents, and valves. Tie-in will be to existing-to-remain piping for distribution within the building

ITEM	UNITS	UNIT PRICE	EXTENDED PRICE
<b>MATERIAL &amp; EQUIPMENT</b>			
Boilers, Viessman Vitodens, 500 MBH input, inclusive of controls	2	\$ 16,500	\$ 33,000
CPVC Vents and Combustion Air piping	140	\$ 30	\$ 4,200
Steel Pipe, Valves, Fittings	100	\$ 30	\$ 3,000
Centrifugal pumps	2	\$ 2,400	\$ 4,800
<b>LABOR</b>			
Demolish old boilers, pumps and piping	20	\$ 300	\$ 6,000
Rig, install and pipe new boilers	30	\$ 300	\$ 9,000
Install Vents and Combustion Air ducts	12	\$ 300	\$ 3,600
Electrical Installation	16	\$ 350	\$ 5,600
Controls	8	\$ 350	\$ 2,800
Commissioning	16	\$ 200	\$ 3,200
Contingency & Estimating Allowance	20%		\$ 15,040
<b>Total Construction Cost</b>			<b>\$ 90,240</b>
<b>OTHER COSTS</b>			
Engineering Plans, Specifications, and Affidavits for Building Permit Application, Bidding, and Construction	1	\$ 14,000	\$ 12,000
<b>TOTAL COST</b>			<b>\$ 102,240</b>