



Oak Park Elementary School District 97

MANN ELEMENTARY BOILER IMMEDIATE NEEDS &
HATCH CAST IRON SECTION BOILER REPLACEMENT



Mann Boiler #2

Upper Leaks in Cast Iron Sections



Mann Boiler #2

Corrosion from Leaking Between Sections



Mann #1

Corrosion from Leaking Between Sections



Mann Burner Refractory

Burner head is cracked and deteriorating with damage to burner diffuser



Mann Boilers

Water Side port clean outs corroded and loaded with scale.



Mann Boilers

Sediment on water side port. We had to pound sediment out with a piece of conduit and a sledgehammer.

Mann Boilers

Accumulated scale from 1 port. There are 16 upper ports and 16 lower ports on each boiler.





Mann Boilers

Sediment inside the boiler coming off the 4" drain line



Mann Boilers

Soot on fire side of boiler

Mann Boiler Piping

Corroded boiler piping full of sediment.



Boiler #1 and #2 are cast iron manufactured by Weil-McLain Modell 88 Series and were installed in 2002. This boiler normally has a lifespan of 30 years, up to 50 with correct maintenance. Excessive scale has accumulated on the lower sections of the boiler interfering with boiler circulation and causing overheating.

Fire Side of the boiler indicated multiple leaks at the sealing rings between sections. Burner head refractory is cracked and damaged.

There are multiple leaks on the Hartford loop and water piping. Defective McDonnell Miller controls due to pressure relief valves plugged with scale and corroded. If there was an issue with these high limit controls the boiler never would of shut down.

These conditions are due to minimal maintenance and no repairs completed. There has been no water treatment and excessive burner cycling. These boilers had the same contractor for over 15 years who admitted that they never opened the boilers. Both of these boilers were operating in unsafe conditions.

We would replace with a firetube boiler. If tubes fail they can be replaced on an individual basis.

Hatch Boiler Cast Iron Section

Multiple leaks with heavy packed scale

