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January 12, 2011

Rick Shain, City Administrator
Marysville City Hall
209 N. 8th Street
Marysville, KS 66508

Re: City Pool Inspection, Report Rev.1.

Mr. Shain,

We have completed the general inspections and pressure testing of the pool piping. We used a combination of water and air testing. Each piping system was plugged or valved off and brought up to the test pressure. The results are as follows:

Pipe Testing:

Line			Testing Results	Condition	Action Needed
Lap Pool - Main Dain	-TO-	Balance Tank/Pump	Held Pressure throughout test	Good	Leave as is
Baby Pool - Scuppers	-TO-	12" Main Drain Header	Held Pressure throughout test	Good	Leave as is
Filters	-TO-	Baby Pool - Inlets (3")	Took 30 mins to loose 10 psi	Possible Small Leak	Leave as is
Lap Pool - Gutter Return Grates	-TO-	Balance Tank	Could not be pressurized	Leaking	Repair/Replace
Filters	-TO-	Lap Pool - Filtered Water Return Inlets	Could not be pressurized	Leaking	Repair/Replace

- The piping from the lap pool main drain to the balance tank passed pressure testing and does not appear to need repair.
- The piping from the baby pool scuppers to the 12" main drain header passed pressure testing and does not appear to need repair.
- The piping from the filters to the baby pool inlets took 30 minutes to bleed off the test pressure of 10 psi. This is possibly a small piping leak; but most likely the valve at the filters did not seal 100%. Even if the pipe is leaking, no repair is needed as this line is open-ended and operates under minimal pressure.
- The piping from the lap pool gutter grates to the balance tank is leaking severely. It could not be pressurized at all. This piping needs repair or replacement.
- The piping from the filters to the lap pool filtered water return inlets is leaking. This line could not be pressurized. The return inlets drained water into the pool (SE corner) when the gutter line was being hydrostatically tested. These two separate lines would never be connected in normal operations of a pool; therefore test water was most likely leaking from a gutter return line break(s) into a break(s) in the inlet piping and then draining from the inlets.

Inspections:

- The pool shell is in relatively fair to poor condition. Visual inspections reveal an unknown type of thick coating, possibly epoxy, which is curling, delaminating and has sharp edges. Sounding inspections are not possible due to the condition and thickness of the coating; therefore the condition of the concrete beneath the coating is undeterminable.
- The basin has settled five to six inches in the southeast corner of the pool; however the basin appears to remain intact. The settling is most likely due to a current or past leak in the piping surrounding the pool. There is no feasible way to correct the settling.
- The pumps, filters and chemical equipment are in fair condition, no work is needed.
- The decks are in fair condition with some minor cracking and spalling.

- The main drain appears to be compliant with the new Virginia Graeme Baker (VGB) laws. The slide suction basket is not compliant with the VGB laws. The slide basket should be replaced with a compliant suction box before the slide is put back into service.

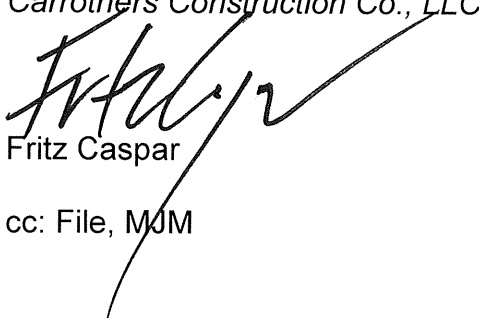
Recommendations:

There are four options to approach getting the citizens of Marysville a swimming facility they can use. Which option you choose will depend upon your budget and desired life expectancy of the existing facility.

- Option One: Replace the entire facility, a budgetary number for a new facility of similar size is \$2,000,000. This will provide a useful life of 35 years or more.
- Option Two: Replace all buried inlet and return piping surrounding the lap pool. Remove the thick coating in the pool, repair concrete in the pool and recoat the pool with a quality pool paint. A budgetary number for this work is \$270,000. This should extend the useful life of the current facility by 10 years or more.
- Option Three: Do additional testing to isolate the exact location of the current leak(s) and repair the leak(s). Remove by grinding/chipping any sharp edges on the coating in the pool. A budgetary number for this work is \$65,000-\$85,000. This should extend the useful life of the current facility by a couple years.
- Option Four: Use the pool "As is". Assuming a water loss of 15,000 gallons per day at \$6/1000 gallons and a four month season. The water for the season due to leakage would cost \$11,000 plus the additional chemical required to treat the leaking water. This option is not recommended and will most likely cause further settlement and deterioration of the basin.

We can provide a detailed estimate and exact cost when you decide which option is right for the City of Marysville.

Sincerely,
Carrothers Construction Co., LLC



Fritz Caspar

cc: File, MJM