



STAFF REPORT

DATE: September 6, 2023

TO: Ty Lasher - City Manager
Bel Aire City Council

FROM: Brian Hayes – Recreation Director

RE: Central Park Pool

SUMMARY: Per instructions, staff has assembled information and estimates for pool resurfacing and circulating pump repair of the Central Park Swimming Pool. Additionally, we have partnered with Brad Ward of Midwest Engineering Inc. to assist with the evaluation and future consultation of the facility. Brad has local experience with pool construction and renovation. That experience includes the Wichita YMCA's, USD's 259, 266, & 490, City of Valley Center and Derby Rec Commission just to name a few.

HISTORY: The Central Park Swimming Pool was constructed in 2005 as part of the original phase of the Central Park development. The pool was designed and constructed as a HOA amenity comparable to a large hotel pool. The original plan for the pool was for the Central Park Homeowners Association to take over operation of the facility as the development progressed. Those original intentions never came to be as the homeowners' associations successfully cut ties to the pool in 2019 & 2020.

Construction of the pool basin in 2005 took place during a rainy spring. The plan was to open the pool that summer but the concrete pool bottom failed shortly after it was poured due to suspected groundwater. Needless to say the pool did not open that year. Structural engineers recommended to remove the bad concrete, patch holes, seal cracks, and pour a cap over the affected area which took place in early 2006. The original contract included a plaster surface which was installed and the pool opened for business that Memorial weekend.

Plaster surfaces have an estimated 8-10 year life so the pool was re-plastered in 2016. Again, Mother Nature did not cooperate with a rainy spell before the re-plastering was complete. After the pool opened that year, a large portion of the new plaster bottom failed, again attributed to suspected groundwater. The pool then was closed for about 3 weeks in June while the old plaster floor was removed and replaced.

Areas of concrete deck and coping were also replaced due to deterioration, settling or heaving in 2016 and 2021.

The current pool circulating pump is 7 years old. The original pump was 10 years old when it was replaced and was the second time it failed. It is not uncommon for these pumps to fail when they are over 5 years old.

DISCUSSION: The current plaster surface is now 8 years old and is in need of repair. The surface continues to become porous and is rough in places resulting in maintenance difficulties as well as being rough to the touch. Unfortunately, most concrete/plaster pool surfaces are rough due to their nature. The rough surface is susceptible to algae growth, harder to clean, and sometimes require more chemicals. Pool toes (*see attachment*) is also an issue with plaster pools even with newer surfaces. Truth is when swimmers are in the water for long periods of time, skin becomes tender, and some feet get abrasions. Most of this subsides after their feet become callused. Water shoes can be worn to alleviate this if swimmers so choose.

A 30' long crack appeared in the floor this spring after it was drained to be prepped to open. This will have to be addressed before anything can be done. A water loss test was completed after closing and the pool doesn't seem to be losing or gaining water at this time.

Staff has again had a difficult time obtaining quotes for re-plastering. Two quotes were submitted this time by Mid-West Plastering for \$47,200 with no warranty information provided and Mid America Pool Renovation for \$67,070 with a 5 year limited warranty. Both quotes include crack repair but were sight-unseen so depending on the condition of the plaster when drained could be more.

Mid America Pool Renovation also quoted 2 alternatives as well as options to replace the existing tile. The first alternative is an exposed aggregate finish which is similar to plaster but a bit smoother for \$81,650 with a 5 year limited warranty. Mid America's premier surface Inter-Glass which was additionally quoted for \$111,430 carries a 25 year limited warranty.

2 updated estimates were also received for installation of 60 mil commercial vinyl liners that have limited 10 year warranties. Although we have these liner installation quotes of \$58,675 and \$74,950, there are many unknown costs and variables that need to further be researched by professionals in the field.

The circulating pump motor of the pool failed on August 5th resulting in closing for the summer 2 days early. Atlas Electric deemed the motor to be bad and the pump impellor and diffuser shows signs of wear. Estimates to rebuild the existing pump assembly is \$1500 - \$3500 depending on the condition of internal pump components or a new pump assembly estimate is \$5000.