

Borough of Beaver  
Beaver Municipal Swimming Pool  
Beaver County, Pennsylvania

Facility Site Observation Conditions Report

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## PART I. Pool

A site observation was conducted on March 27, 2020

### A. The Main Pool

The Main Pool, constructed in the early 1930's, is of steel reinforced concrete with a painted finish. It is a rectangular configuration beginning at a depth of approximately 3 feet in the shallow end and terminating at a deep well. The pool consists of approximately 11,265 sq. ft. of surface area. The pool has an underground recirculation piping system consisting of an overflow gutter system, a sidewall filtered water return system, and a single deep well drain intake box. The underground piping system appears to be a combination of PVC and steel piping.

There are no competition style race lanes. A single rope line divides the shallow and deep areas of the pool. See Fig. 1. There is a series of stainless steel ladders for access and fixed in place lifeguard platforms. A poured concrete deck surrounds the pool. A single dive platform is present at the end wall of the deep well. See Fig. 2. No additional play type or other general recreational amenities exist.



Figure 1



Figure 2

## Filtration/Chemical Equipment and Systems - Main Pool

The Main Pool filtration system consists of a gravity fed recirculation pump and motor linked to an on grade vacuum sand filtration system. See Fig. 3. The filter tank is concrete with manual setting controls. The chemical system consists of a Liquid Chlorine system for sanitation. See Fig. 4. The Filtration and Chemical Systems are located within the Bathhouse Building.



Figure 3



Figure 4

## B. Wading Pool

The Wading Pool is believed to have also been constructed in the early 1930's. It is constructed of steel reinforced concrete. It is of a square configuration. The pool consists of approximately 601 sq. ft. of surface area. The pool has an underground recirculation piping system. Underground piping appears to be a combination of PVC and steel composition. A poured concrete deck surrounds the pool. See Fig. 5.



Figure 5

#### Filtration/Chemical Equipment and Systems – Wading Pool

The Wading Pool filtration system consists of an on grade recirculation pump and motor linked to an on grade filtration system. The Filtration and Chemical System is located adjacent to the pool.

### B. Site Observations

1. The Main Pool is in a state of advanced structural decay, with the main surfaces in which patrons come into contact being a network of patch upon patch. See photos taken 5/17/2011 Fig. 6, 7, 8.



Figure 6



Figure 7



Figure 8

See core boring samples taken 5/3/2011 Fig. 9, 10, 11. Which revealed a fractured and weakened structure.



Figure 9



Figure 10



Figure 11

See photos taken 3/27/2020 Fig. 12, 13, 14.



Figure 12



Figure 13

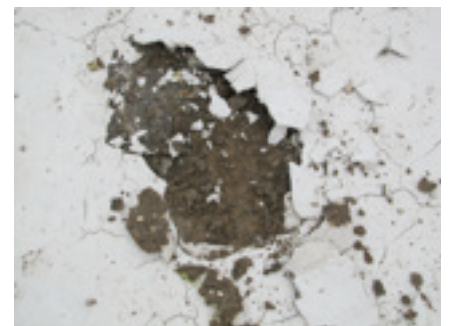


Figure 14

The entire structure is rotten and spalled beyond the point of repair. There is no solid surface left on which to repair.

Continued patching, a vinyl liner, or a fiberglass overlay as remediations have all been ruled out. There is no known repair method available for this pool to insure a reasonable standard of safety or stable and sanitary conditions for the public.

Additionally, the supports for the hollow access around the pool for access to the piping are rotted to the extent that entry is unsafe and a collapse of the deck could occur. See photos from 3/27/2020 Fig. 15, 16, 17.



Figure 15



Figure 16



Figure 17

2. The Wading Pool although structurally sound is deeper than the 18 inch maximum water depth allowed by code, See Fig. 18. It also has a milk crate acting as a drain cover which is a highly dangerous entrapment hazard for children and is in violation of the Federal Virginia Graeme Baker Pool & Spa Safety Act. See Fig. 19



Figure 18



Figure 19

## C. Conclusion

BOTH POOLS ARE UNSAFE AND UNACCEPTABLE FOR PUBLIC USE. THE WADING POOL WITH ITS DEPTH TOO DEEP FOR SMALL CHILDREN AND THE MAIN POOL WITH ITS HIGHLY UNSAFE SURFACES AND DECK NEAR COLLAPSE ARE BEYOND REPAIR. THE FACILITY SHOULD BE DISCONTINUED FOR PUBLIC USE IMMEDIATELY.

## PART II. Beaver Pool Bathhouse Technical Report

### Bathhouse Assessment

#### A. Overview

The purpose of this document is to provide an assessment of the Beaver Community Swimming Pool's bathhouse and offer a recommendation for the structure's future improvement or use. There have been no intrusive studies or inspections of the existing bathhouse conducted to determine the existing bathhouse's: structural integrity, plumbing or electrical code compliance, etc. However, this assessment builds upon the 2011 Feasibility Study, the current Uniform Construction Code (UCC), current ADA compliance codes, and modern user standards. This report will outline the deficiencies of the existing bathhouse with regard to these issues and present opportunities for the existing bathhouse's continued use.

The existing bathhouse facility has provided recreation opportunities to its residents for many years. Currently, the facility serves uses such as the pool management office, small gathering within the vestibule, men's and women's changing rooms with showers and toilets, storage space, first aid area, etc. As a result of natural wear and tear over the years, as well as, new building code regulations and Americans with Disabilities Act (ADA) accessibility standards, the bathhouse facility is in need of significant repair and renovation.



Figure 1: Exterior view of the existing bathhouse



Figure 2: Interior vestibule of the existing bathhouse when roll up door is open.



Drawing 1 : Existing bathhouse floor plan

## B. Structural/Operational Review – the following is a summary of the structural and operational assessment of the existing bathhouse

There are multiple issues with the bathhouse structure that need to be addressed in order to bring the building up to current codes and standards. The following is a list of deficiencies which need to be considered:

1. Minor cracking was observed above some of the door and window lintels which is common for the age of the building. Minor cracks were also observed at the south corners of the building indicating minor building settlement.
2. Separation of building facade from concrete structure occurs near stairs leading to the pool deck. The separation of the veneer from the structure is problematic because this is an opportunity for moisture to get in. Over time, the accumulated moisture and the freeze/ thaw cycle will cause the veneer to release itself from the structure. (See figures 3-6 below.)



Figure 3: Cracking Mortar



Figure 4: Cracked leaded glass



Figure 5: Separation of mortar from concrete structure

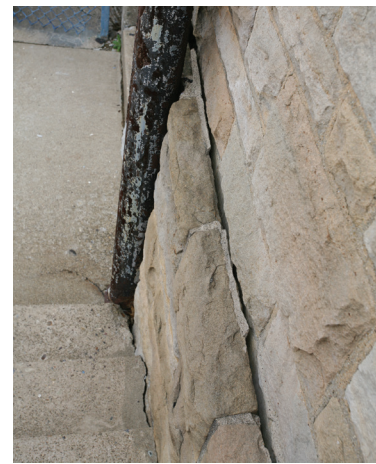


Figure 6: Separation of veneer from concrete base

3. There are spatial issues with how the building is utilized. At present there is inadequate storage for cleaning supplies and pool chemicals. Pool chemicals and cleaning supplies are stored throughout the building and not in a centralized location. While these items are secure in the sense that they are not accessible to the general public, the combination of caustic items that do not have their own designated storage space is not a good practice. (See figures 7-8 below.)



Figure 7: Storage Area



Figure 8: Urinal in storage area

4. There is inadequate areas for lifeguards to take breaks during their duties. Lifeguards share the locker area with the cramped management office.
5. Currently there is no space to expand for other programming like: birthday parties, a fitness area, or other social space. The number of partitioning interior walls, known as demising walls, in the building would make reconfiguration of the building to accommodate this programming while maintaining the bathhouse programming challenging.
6. There is a large elevation difference between the pool deck and the bathhouse main-floor which inhibits someone with physical mobility issues to easily move about. This makes entry to the bathhouse inaccessible for people with mobility issues. Given the amount of elevation difference improved accessibility can only be resolved with an elevator, chair lift, or ramp.



Figure 9: Large change in elevation from pool deck to bathhouse



Figure 10: Area for privacy screens

7. Currently the existing bathhouse does not offer a privacy screen changing area in both the male and female locker rooms for patrons who wish to have more privacy (See Figure 10 above.)
8. Given that there is a lot of importance placed on being architecturally true to the period of the Existing Bathhouse, the current aluminum garage door opening to the vestibule of the building, while tastefully executed, does not reflect this desire.

## C. Summary of ADA and UCC compliance deficiencies

Outlined below is a list of the ADA accessibility deficiencies and the UCC compliance deficiencies that currently exist within the Beaver Borough Bathhouse facility. The following assessment is based on the 2010 ADA Standards for Accessible Design set forth by the Department of Justice and from the International Council Codes (ICC) that the Commonwealth of Pennsylvania most recently adopted in 2018.

1. All doorway openings provided along the ADA accessible route and restrooms must have 32" clear space thru the doorway opening. This means the doors need to be changed to a 36" wide door to meet this requirement. This will also include the door replacement for access to the men's and women's public restroom areas located on the exterior of the building. The existing 33" and 34" clearance around the showers in the men's and women's locker rooms does not provide the 36" clearance for the ADA accessible route; therefore, the showers will need to be redesigned.
2. Currently there is no drop-off area for patrons to get from a vehicle to the pool. Borough staff say that 40-50% of pool users arrive by car but there is not an ADA ramp or drop-off of any kind to accommodate this.

3. Ground surfaces are not ADA compliant: There are two areas of concern, the Men's and Women's exits from the bathhouse and the entrance to the exterior bathrooms.
4. Access to the pool needs to be ADA compliant. There should be a route from the accessible parking space to the pool.
5. Existing handrails on steps leading to pool deck are not ADA compliant. The handrail needs to be redesigned as it does not meet current ADA standards of 38" height. There is also currently no accessible route from the bathhouse lobby to the pool deck.
6. There are showers in each of the men's and women's locker room area, although not ADA compliant. The existing rest room in the guard and field house area is too small to convert to an ADA restroom.
7. Urinals in men's room do not meet ADA requirement. Flush handles and rim height are not appropriate heights.
8. The interior restroom in each locker room should have an ADA compliant stall and meet the other requirements. The exterior men's and women's restroom areas will need to meet this requirement.
9. The UCC requires 1 washroom for every 75 male patrons and 1 washroom for every 40 female patrons; it also requires 1 lavatory for every 200 male patrons and 1 lavatory for every 150 female patrons. Currently this means that for peak summer days the locker rooms should have approximately 5 urinals and 2 toilets for the male patrons and 9 toilets for female patrons.
10. Counter height at reception area does not have an appropriate wheelchair height accessible counter.



Figure 10: Width of door not ADA compliant



Figure 11: Ground and floor surfaces are not ADA compliant



Figure 12: Showers not ADA compliant



Figure 13: Urinal not ADA compliant



Figure 14: Showers not ADA compliant



Figure 15: Counter height not ADA compliant

## D. Conclusion

From a visual inspection the building is structurally sound and the roof is in good condition. The longevity of the construction reinforces the bathhouse as one of the “jewels” that the CCC crews built in Beaver County in the 1940s, furthermore, the Borough has done a good job in maintaining the structure. However, due to the large amount of ADA deficiencies, the age of the structure, and the current limitations of the structure it may be that the building has passed its use as a public bathhouse. Given that the structure on the whole is in good condition and because of its historic nature, there is an opportunity for the existing bathhouse to be re-purposed as a fitness center, flexible space, or event venue. In changing the building typology from bathhouse to another use, we are relieved of some of the code regulations we are faced with today. This approach would allow us to create a new bathhouse which has better access to the pool and is sited better on the property, eliminating the need for stairs or ramps to get down to the pool. This also creates an opportunity for us to better site the bathhouse to accommodate drop-offs from a vehicle. With a new bathhouse, and the re-purposing of the existing historic bathhouse to provide different programming, the entire pool complex would be able to offer more to a growing and diverse community.