City of Pittsburgh
2022-ITQB-203
ITQB: Swimming Pool Assessment Study

Submitted to

City of Pittsburgh
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City-County Building
Pittsburgh, PA 15219

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This assessment will let the Department of Public Works know what improvements need to be undertaken by the City to bring the pools into good working condition, in addition to what must be undertaken to be compliant with PA code, the priority of the issues on each pool, how to appropriately fix it, and an estimated cost for the recommendations.

Conditions Assessment Study was completed on the following twenty pools:

- Ammon Pool – 2217 Bedford Ave, Pittsburgh, PA 15219
- Banksville Pool – 1485 Crane Ave, Pittsburgh, PA 15220
- Bloomfield Pool – 408 Ella St, Pittsburgh, PA 15224
- Fowler Pool - 2435 Wilson Ave, Pittsburgh, PA 15214
- Highland Pool – 151 Lake Dr, Pittsburgh, PA 15206
- Homewood Pool – N Lang Ave, Pittsburgh, PA 15208
- Jack Stack – 600 Brighton Woods Rd, Pittsburgh, PA 15212
- Magee Pool – 745 Greenfield Ave, Pittsburgh, PA 15217
- McBride Pool – 1785 McBride Ave, Pittsburgh, PA 15207
- Moore Pool – 1801 Pioneer Ave, Pittsburgh, PA 15226
- Oliver Pool – 38 S 10th St, Pittsburgh, PA 15203
- Ormsby Pool – 79 S 22nd St, Pittsburgh, PA 15203
- Phillips Pool – 201 Parkfield St, Pittsburgh, PA 15210
- Ream Pool – 321 Merrimac St, Pittsburgh, PA 15211
- Riverview Pool – Riverview Ave, Pittsburgh, PA 15214
- Schenley Pool – 1 Overlook Dr, Pittsburgh, PA 15213
- Sheraden Pool – 1000 Adon St, Pittsburgh, PA 15204
- Sue Murray Pool – 301 Cedar Ave, Pittsburgh, PA 15212
- West Penn Pool – 450 30th St, Pittsburgh, PA 15219
- Westwood Pool – 100 Guyland St, Pittsburgh, PA 15205

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Bloomfield Pool

3. Bloomfield Pool – 408 Ella St, Pittsburgh, PA 15224

a. Aquatics Engineering Assessment & Recommendations

Existing Conditions – Summary

- Bloomfield Pool is a "T" configuration ranging in depth from 1 ½ ft to 12 ft.
- It is a "step in" design with a series of ladders for entry therefore being inherently non-ADA accessible in its base design.
- It is of concrete construction which is obscured by a vinyl liner.
- The recirculation system is comprised of:
  - a vinyl clad cast perimeter intake gutter with a cantilever deck design.
  - a direct link trench style main drain box with heavy steel grate (the drain piping size could not be confirmed)
  - a side wall return system for filtered water distribution.
- No play features or water play amenities exist.
- The pool has a vinyl liner.

Figure 3.a-1

Priority Assessments and Recommendations

Overview

The liner appears in good condition despite some minor wrinkling. No work is required at this time.

Specific Recommendations

1. The owner reports heavy to moderate water loss and therefore all piping should be pressure or static tested as is applicable or feasible prior to the commencement of any rehabilitation to assess the integrity of the recirculation system.

   Estimated cost $10,000 - $15,000

2. The main trench drain is direct linked to the filter system and is not VGB compliant. At a minimum a new grate is required, but likely a new sump.

   Estimated cost: New sump and grate $80,000

Figure 3.a-2

3. Addition of a ramp or beach entry is not recommended at this time as it is not practical with the liner.

Patron Satisfaction: The recommendations do not account for the lack of amenities at the facility. Water play attractions such as slides, climbing walls, diving boards, water sprays, floatable features, beach entries with water features and etc. are the attractions that bring people to the pool and allow them to really have an experience and enjoy themselves. Currently Bloomfield has no such features and has no provisions for small children with the lack of a wading pool or small childrens area- the pool whereby excludes many. The City should consider this before only investing in base infrastructure.

The cost of adding features can vary greatly depending on what is chosen but a range of $100,000 to $250,000 for the facility is not unusual.

The cost of a wading pool is $650,000 but there does not appear to be a suitable area to construct one in this particular case.

b. Civil Site Assessment & Recommendations

i. <u>Summary</u>

- Bloomfield Pool consists of one pool and a multi-story building located at 408 Ella Street, Pittsburgh, PA 15224 and is part of the Bloomfield Playground Recreation Facilities.
- It fronts Ella Street to the east, Mott Way to the south, Bloomfield Park to the west, and a residential neighborhood to the north.
- There is no dedicated parking for the pool. Street parking in the neighborhood is limited. There is a shared parking lot used for the entire park complex on Darsie Street. Parking is available under the Bloomfield Bridge via Ewing Street.

Overall Site Aerial

ii. <u>Potential Issues</u>

1. A large pool, such as this pool, is any pool that has more than three hundred (300) linear feet of pool wall and is required to have two (2) accessible means of access.

    a. The primary access is to be via a sloped entry or a pool lift.
    b. The second may be a Pool Lift, transfer wall, or accessible stairs.

    The pool had two Handicap Accessible Pool Lifts on site.

Figure 3.b-1: Pool access does meet current standards.

2. The pool deck contained areas of ponding water.

Figure 3.b-2: Ponding water.

3. Numerous cracks located within the pool deck.

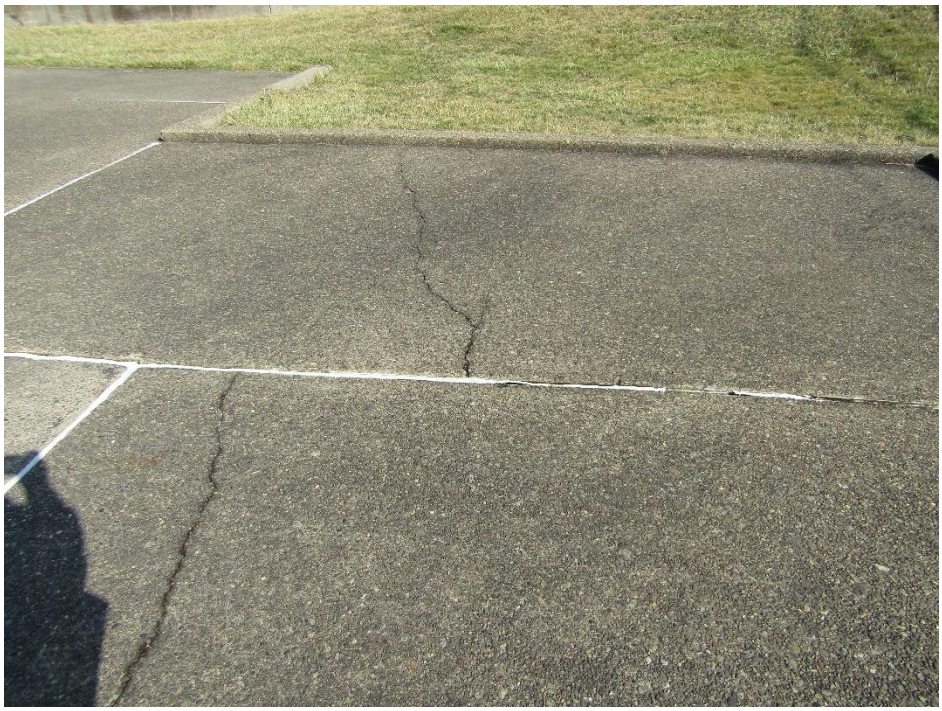


Figure 3.b-3: Typical cracks.

4. Ramp from parking lot does not meet code requirements.

Figure 3.b-4: Ramp from parking lot.

5. The pool deck is stained and needs cleaning.

Figure 3.b-5: Pool deck discoloration indicates a need for cleaning.

6. One handicap accessible parking stall is available in the shared parking lot. The stall does not meet code as it is not the closest to the pool entrance. There are no accessible spaces available on the street.

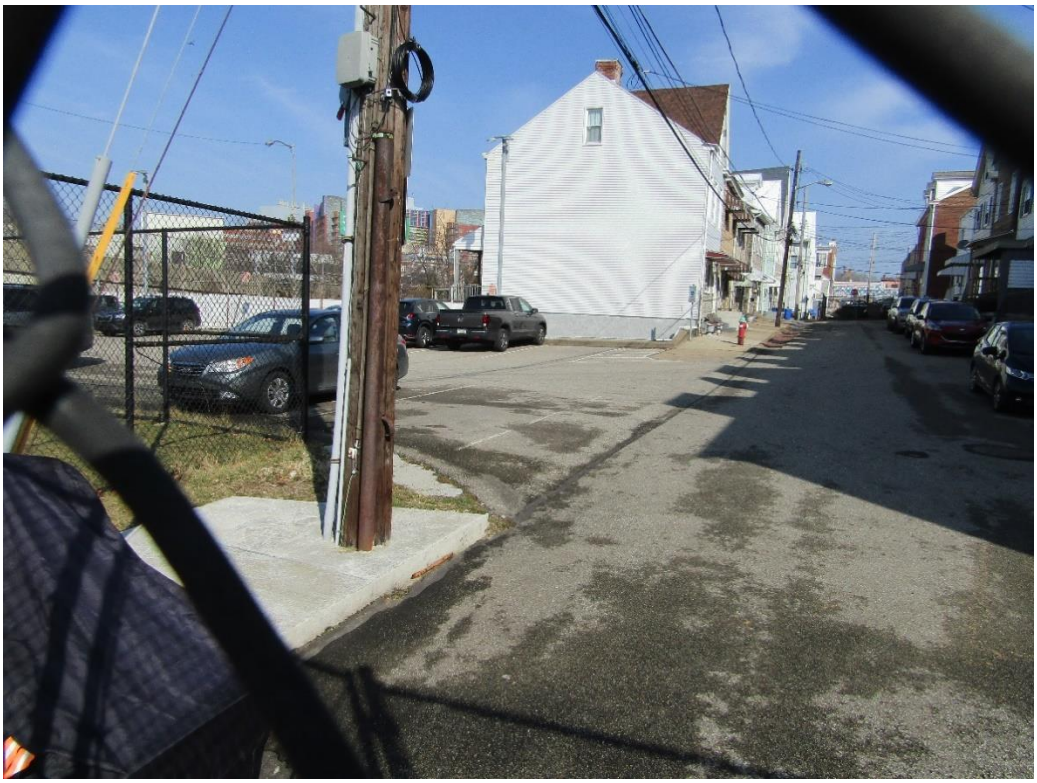


Figure 3.b-6: Handicap parking stall in shared parking lot.

7. The fencing surrounding the pool appears to be in serviceable condition.

Figure 3.b-7: Fencing is serviceable.

iii. <u>Priority Assessments and Recommendations</u>

1. The critical site related items that would need to be addressed are all related to handicap accessibility and safety concerns.
    a. Update the parking lot and ramps to meet current accessibility codes.
    b. Reconstruct walkways and ramps to meet code and prevent tripping.

iv. <u>Code References</u>

1. ADA Standards for Accessible Design
2. International Swimming Pool and Spa Code

v. <u>Estimates</u>

1. Pool deck replacement $90,000 - $110,000. The price may be able to be reduced with selective replacement. A survey will help us design and fine tune the areas needing replacement.
2. Pool deck cleaning is something the City staff can perform with a power washer and is not a safety issue, only an appearance issue.
3. Sidewalk and ramp repair. $3,500 - $4,500.
4. Parking lot restripe to create handicap parking stall. $1,000-$2000

c. Mechanical & Plumbing Assessment & Recommendations

The mechanical and plumbing systems were accessed for operability, code compliance, and the overall existing conditions were recorded. Pool operations were discussed with Public Works staff and issues were noted for any operational concerns due to the timing of the site visits with no pools in operation. The findings are listed below.

Pool Pump & Filter Room

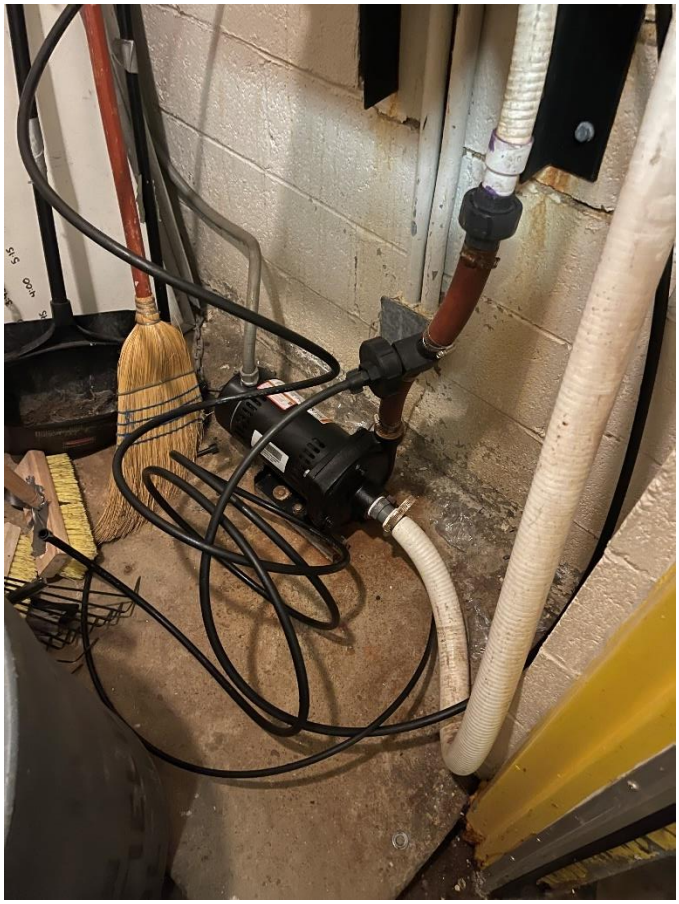
i. Main Pump – Main pump needs to be replaced.
ii. Chlorine Injection Pump – No issues to report.
iii. Secondary "Mushroom" Pump – Needs to be replaced.
iv. The incoming service pool fill line had no issues.
v. The main drain size is 12"Ø with no issues reported.
    a. The main drain is connected directly to the main pump.
vi. There was no heat in the main pool filter room.
vii. The main filter room is located the basement of an abandoned recreation center. The center itself is in bad condition with a significant number of leaks and water pooling on the first floor. The leaks are causing issues within the filter room.
viii. The main shutoff valves need to be replaced due to corrosion and the conditions within the filter room. There are an estimated to be four 12"Ø valves that should be replaced.

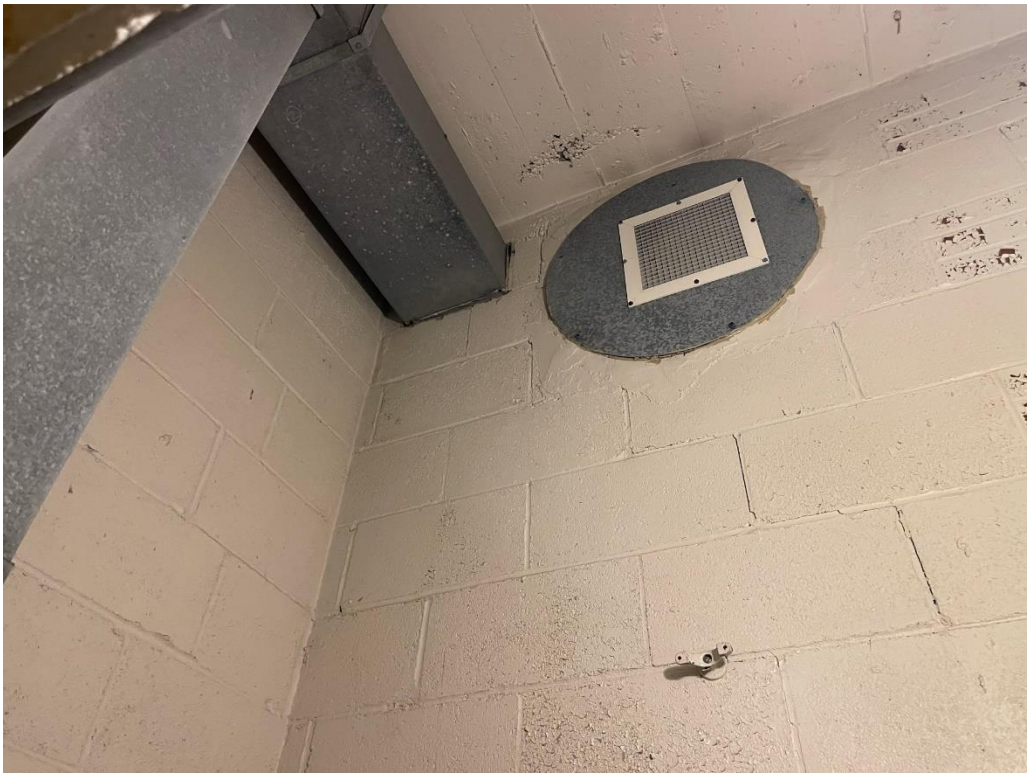
Chlorine Gas Storage Room

i. Exhaust Fan – Good working condition with no repairs required.
ii. Exhaust Ductwork – Good condition with no repairs required.

The mechanical systems are in deteriorating condition due to the condition of the existing building and the water leaks throughout. The main pump and secondary "Mushroom" pump are required to be replaced but the building conditions need to be addressed before any new equipment is installed. Also, there are various pipes, fittings, and valves that may need to be replaced due to the ongoing water corrosion.

BALDOR · RELIANCE
INDUSTRIAL MOTOR
CAT. NO. JML1510T
SPEC. 37K268W885G1
HP 7.5
VOLTS 230
AMPS 31
R.P.M. 1725
FRAME 215JM
HZ 60
PH 1
SER. F 1.15
CODE G
DES. L
CLASS F
NEMA NOM. EFF. 85.5 %
P.F. 80 %
RATING 40C AMB-CONT
USABLE AT 208V 23 A
BEARINGS DE 6309 ODE 6206
ENCL OPEN SN





d. Electrical Assessment & Recommendations

The electrical equipment at Bloomfield is in extremely deteriorated condition. Whether from dampness in the pool equipment room, or some other reason, all of the equipment is extremely rusted, both outer enclosure and interiors. All of the equipment needs to be replaced.

Pump control panel, wireway beneath and booster pump motor starter. All enclosures and equipment corroded and in unsafe condition for working.

Distribution panelboard outside of pump room and equipment. Corrosion in this panel needs to be inspected for safety of this panel.

Booster pump motor starter and disconnect. Both in unsafe condition for operation.