

# Statement of Work for Banff Upper Hot Springs Pool Basin Rehabilitation

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# 1 Scope

## 1.1 Objective

Parks Canada Agency (PCA) is seeking the services of a qualified contractor to rehabilitate the existing pool basin and the Banff Upper Hot Springs (BUHS). The scope of work includes the following activities:

1. Removal and replacement of all existing tiles along the upper perimeter of the pool basin
2. Concrete removals and repairs to any locations of degraded concrete integrity
3. Provision of a trained and certified EcoFinish installer, or a Protech Polyarmor Series installer to prepare and apply the thermoplastic coating system known as EcoFinish or Protech Polyarmor Series to the pool basin at the Banff Upper Hot Springs. The new coating must be able to bond to the existing EcoFinish coating.

## 1.2 Alternate Products

Parks Canada will consider an alternate epoxy-based heat-applied powder coat pool lining product if the Contractor can demonstrate its equivalence in performance to EcoFinish or Protech Polyarmor Series, and suitability in being applied onto an existing EcoFinish surface. Bidders must request an alternate materials request during the solicitation question period for it to be considered.

## 1.3 Background

As shown in the attached photos, the pool basin surface has deteriorated and is in need of repair and recoating. The existing coating was installed in 2020 and has faded, chipped, and worn down. Portions of the concrete behind the existing perimeter tiles are believed to be in poor condition.

The Banff Upper Hot Springs are located in Banff, AB and are open to the public year-round.

# 2 Relevant Standards, Regulations and Documents

- Canada National Parks Act and Regulations, Directives, Policies, Guidelines, Standards.
- The National Building Codes of Canada (latest edition).
- Canadian Environmental Assessment Act.
- Canadian Environmental Protection Act.
- Alberta Health Pool Standards, July 2014, Amended 2018
- Local Provincial and Municipal Codes, Standards and Regulations accepted as having jurisdiction in the National Parks where work is being performed and for which the requirements are more stringent than those named above, must be followed.
- Most recent CSA standards.
- The latest Ecofinish High Performance Pool Finishes Installation Manual or Protech Polyarmor Series installation manual
- Banff Upper Hot Pool - Design Drawings (excerpts)

### 3 Required Services

- The Contractor is responsible for the following:
  - The Contractor must ensure all work meets the prescribed standards identified herein.
  - The Contractor is responsible for arranging and undertaking all services necessary to complete this project.
  - The Contractor is responsible for ascertaining the availability of all information from PCA Project Authority prior to the start of the project and for determining the procedures to be followed throughout the course of the project as well as other requirements.
  - The Contractor must maintain direct communication with the PCA Project Authority.

#### 3.1 Scope of Work

##### 3.1.1 Pool Basin Coating

The Contractor is required to perform all surface preparation in order to achieve a uniform, smooth and adequate surface for application, including proper bonding to the existing coating. Before coating, the Contractor will be responsible to first repair all observed cracks in the basin by utilizing the proper repair method for extent of crack; including but not limited to chiseling, wire brushing, cleaning, and patching with an acceptable product (including Xypex additive, or equivalent) for the substrate and conditions. The contractor shall supply all materials, manpower and equipment, including heating and hoarding as described below, to provide the desired finished product. The pool basin shall be completely dry prior to coating installation and shall remain dry until the product has fully cured. The contractor shall complete all work and be demobilized from site by May 16<sup>th</sup>, 2024.

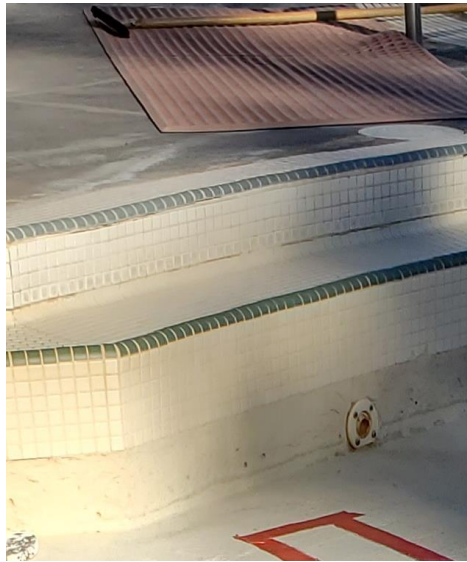
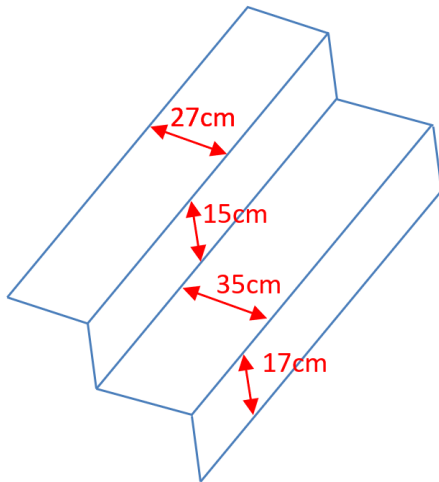
The square footage of the pool basin (including walls, benches, ramps, and staircases is approximately – 320m<sup>2</sup>. The pool dimensions are approximately 12m by 24m, and the depth ranges from 0.9 to 1.4m.

Contractor's price shall include all equipment and materials needed for surface preparation and EcoFinish or Protech Polyarmor Series application including freight, travel, necessary permits, licenses and labour. The above numbers are approximations and the Contractor is ultimately responsible to determine the total volume of materials necessary to complete the work.

### 3.1.2 Tile Replacement

The existing tile around the perimeter of the pool is to be removed and replaced. The replacement tile is to be of suitable composition and visually similar to the existing. Final tile selection will be subject to approval by the Departmental Representative. The pool depth markers (x6) are to be reinstated at the same locations in both Metric and Imperial measurements.

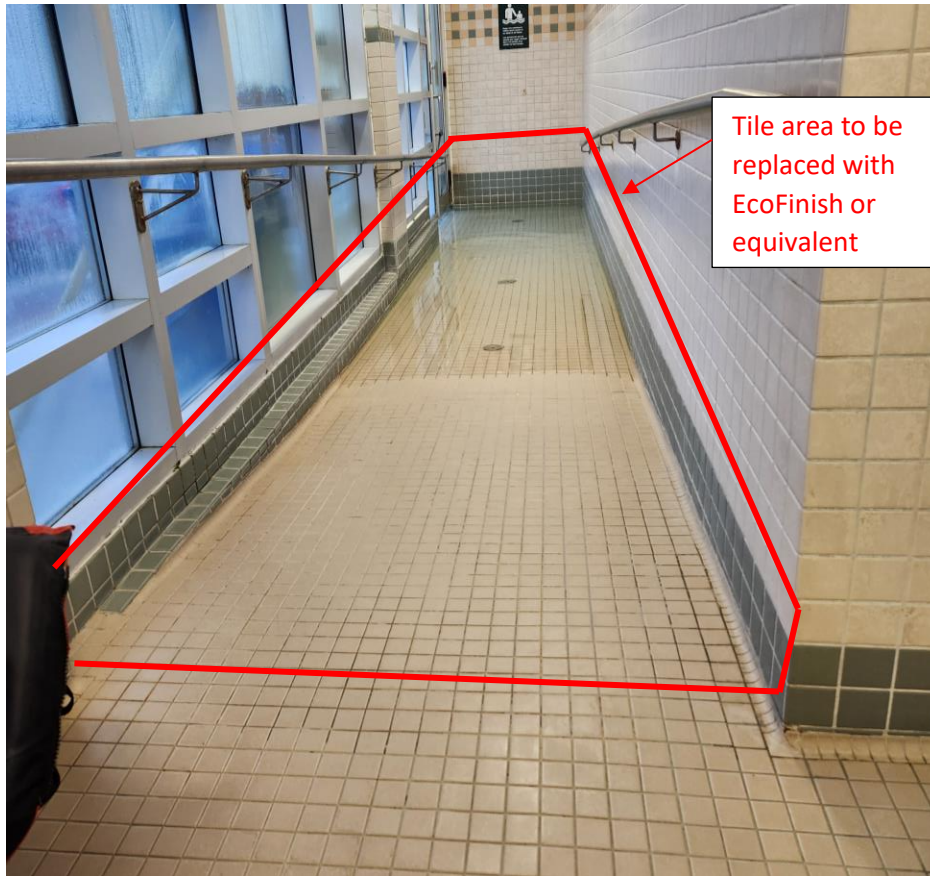
The dimensions of the perimeter tile are generally as follows:



Total tile to be replaced: 58m<sup>2</sup>

The wet hall entrance ramp lower tiles are to be removed and replaced with an EcoFinish (or equivalent) coating with high-grip surface treatment, per the image below. The contractor is required to remove all tiles and prepare the surface adequately for the EcoFinish application.

### 3.1.3 Wet Hall Tile Removal & EcoFinish Application



Total tile area to be replaced with EcoFinish (or equivalent): 15m<sup>2</sup>

Contractor's price shall include all labour, equipment and materials needed for removal of the tiles, surface preparation and EcoFinish or Protech Polyarmor Series application including freight, travel, necessary permits, licenses and labour. The above numbers are approximations and the Contractor is ultimately responsible to determine the total volume of materials necessary to complete the work.

### 3.1.4 Concrete Repairs

The condition of the concrete behind the perimeter tiles has not been fully assessed but is believed to contain areas in poor condition. The Contractor is required to identify, remove, and reinstate all areas of concrete in poor condition. The contract allows for 15m<sup>2</sup> of surficial\* concrete repairs. (\*surficial is defined as having an average repair depth of 3cm or less.) The concrete is to include Xypex concrete additive or equivalent, as approved by Departmental Representative.

Contractor's price shall include all labour, equipment and materials needed for concrete removal, surface preparation, formwork, concrete supply, finishing and curing. The above numbers are approximations and the Contractor is ultimately responsible to determine the total volume of materials necessary to complete the work.

## 3.2 Tasks

### 3.2.1 Set up

Any plastic sheeting that is required is the responsibility of the Contractor. Masking and protection of the reversed concrete bullnose as well as all railings, inlets and lights is required during sandblasting as well as EcoFinish or Protech Polyarmor Series application.

### 3.2.2 Removal and Reinstallation of Fixtures

Prior to the work, Parks Canada staff will drain pool basin. The Contractor is responsible to remove existing fixtures including inlets, drains, ladders, handrails and lights. Note that the lights have continuous cabling that cannot be removed and the Contractor will be required to temporarily suspend lights while the work is taking place. The Contractor is responsible for masking and protecting all mounting plates, hardware, pool drains, and skimmer ports in the course of the work. Pool drains shall be blocked preventing any debris from going down.

### 3.2.3 Paint Removal

The Contractor is responsible to prepare the pool surface by first addressing any defects in the existing pool surface (including but not limited to chipping or worn coating and crack repairs). The surface should then be prepped for proper bonding to the new coating per the manufacturers instructions before proceeding with application of EcoFinish or Protech Polyarmor Series. Any required grinding or sandblasting will be permitted as a removal technique only if the Contractor can first demonstrate a 1m x 1m mock-up on both a horizontal and vertical basin surface to demonstrate effective removal of existing paint layers without compromising the integrity of the underlying concrete substrate (avoiding undue damage to the surface and preventing aggregate 'popouts' from concrete) to Parks Canada's satisfaction. Steel grinding products will not be permitted. Any excessive damage to the concrete basin as a result of sandblasting is to be repaired at the Contractor's cost. The Contractor must ensure the concrete surface will be thoroughly cleaned with vacuum prior to coating application.

### 3.2.4 Repairs to Pool Basin

The Contractor will be required to repair cracks and damaged areas of the concrete basin with quick setting hydraulic cement. Refer to attached photos of existing condition of basin. It is expected that some level of existing cracking and damage in the basin will be uncovered once the tiles are removed and the concrete substrate is revealed (beyond what is presently visible). The need for repairs must be evaluated by the Contractor upon completion of tile removal. Repairs must be completed and cured before the contractor can move forward with the application of the new tiles and/or EcoFinish or Protech Polyarmor Series product.

### 3.2.5 Surface Preparation of Pool Basin

If applying EcoFinish, the Contractor to adequately prepare the surface to remove contaminants such as loose surface material, scale and calcium build-up in accordance with EcoFinish manufacturer instructions. If applying Protech Polyarmor Series, the Contractor to follow alternative methods for surface preparation in accordance with Protech Polyarmor Series manufacturer instructions. Contractor to then power pressure wash the finish with a minimum pressure capacity of 3000 psi to remove pool chemicals, dirt, oil and any other surface contaminants as well as residual acid. Contractor must ensure that the pool is clean and dry before EcoFinish or Protech Polyarmor Series application commences.

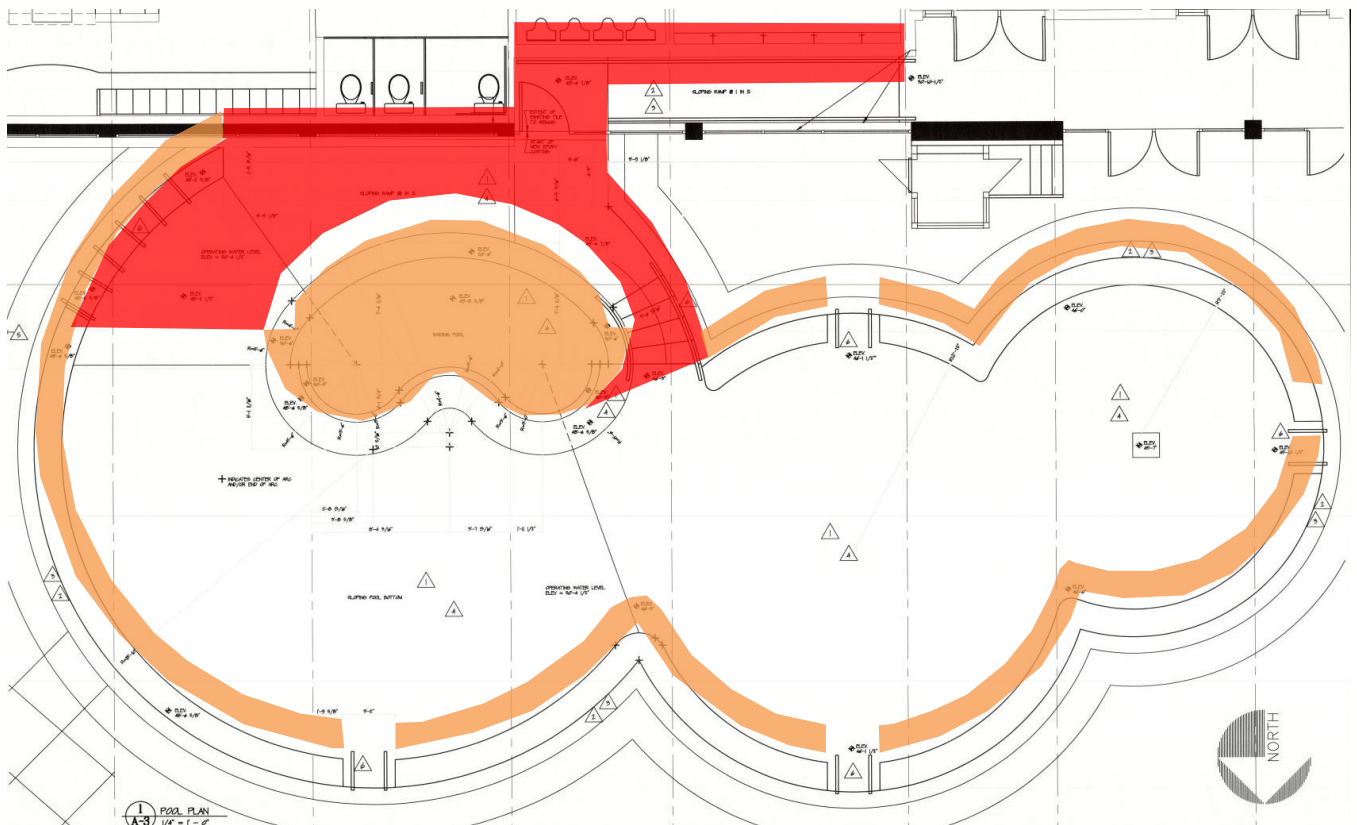
Contractor must prepare and protect all PVC fittings, as per instructions in the EcoFinish High Performance Pool Finishes Installation Manual or Protech Polyarmor Series installation manual.

### 3.2.6 Application of Thermoplastic Coating

All materials delivered to the job site must be in original sealed and labeled containers of the manufacturer. Coatings must be applied under air and surface temperatures within limits prescribed by the manufacturer for EcoFinish or Protech Polyarmor Series.

The Contractor must apply EcoFinish or Protech Polyarmor Series in white to all horizontal and vertical pool basin surfaces right up to the edge of the concrete bullnose, including ramps, stairs and benches.

The Contractor must create non-slip surfaces on all benches, ramps, and stairs of each pool utilizing the EcoFinish or Protech Polyarmor Series prescribed method for non-slip surfaces. The Contractor must also mark the edge of all benches and steps of the basin with a 4cm wide black line (to match existing). The following are estimates of quantities for non-slip areas and length of edge marking, per the image below in red. The areas highlighted in red identify surfaces requiring high-grip surface treatment, and the areas in orange require moderate-grip surface treatments.



Non-Slip Surface Area (m <sup>2</sup> )	Edging Length (m)
85	58

The Contractor must install coatings as outlined in the most current version of the EcoFinish High Performance Pool Finishes Installation Manual or Protech Polyarmor Series installation manual.

### 3.2.7 Accessibility Considerations

The application of the non-slip EcoFinish or Protech Polyarmor Series and black markings on the edges of all ramps, stairs, benches and deep end line markings will ensure the safety and accessibility to individuals with impairments and barriers in accessing the pool safely.

### 3.2.8 Clean up

The Contractor must, upon completion, remove all debris, materials, supplies and equipment associated with their work from the site. The Contractor must clean any epoxy spatters or spills **immediately**. Cured material could require grinding for removal. All debris should be removed from the pool, including sandblasting media.

## 3.3 Basis of Payment

### 3.3.1 Lump Sum – Item 1 - Application of EcoFinish or Protech Polyarmor Series or Approved Alternative

All labour, materials, incidentals, and overhead costs associated with completing the work, including protection of existing fixtures, removal of existing paint layers, surface preparation, anchor replacement, heating and hoarding, EcoFinish or Protech Polyarmor Series application, and clean up shall be included under a single lump sum item.

### 3.3.2 Unit Price – Item 2 – Concrete Repair

Measurement and payment for work required to complete concrete repair and patching of existing damage to the concrete basin shall be via a unit price per square metre of repairs, assuming an average repair depth of 3cm as defined in this Statement of Work. A total concrete repair quantity has been estimated at 15m<sup>2</sup>. The Contractor is not entitled to the full value of this item if less than the identified quantity is needed to perform repairs. The Contractor is to provide detailed records to Parks Canada for proof of payment of this unit price item. If damage to the basin necessitates greater than 15% of the estimated quantity, a change order will be negotiated between the Contractor and Parks Canada.

### 3.3.3 Unit Price – Item 3 – Tile Replacement

Measurement and payment for work required to remove and replace the perimeter tile shall be via a unit price per square metre of tile installed as defined in this Statement of Work. The quantity of tile has been estimated at 58m<sup>2</sup>. The Contractor is not entitled to the full value of this item if less than the identified quantity is needed to perform repairs. The Contractor is to provide detailed records to Parks Canada for proof of payment of this unit price item. If damage to the basin necessitates greater than 15% of the estimated quantity, a change order will be negotiated between the Contractor and Parks Canada.

## 3.4 Constraints

The Contractor must account for the following constraints that could impact the completion of this project.



### 3.4.1 Pool Closure

The Banff Upper Hot Springs Site will be closed to the public for the duration of the construction work. The maximum allowable closure for completion of the work outlined in this document is 3 weeks. No requests for extensions to the closure will be considered, and Contractor shall submit a detailed schedule outlining how the work will be completed within this timeframe.

### 3.4.2 Road Access & Parking

The Banff Upper Hot Springs Site is located at the end of Mountain Ave. in Banff. Mountain Ave experiences frequent congestion during busy periods and Contractors should plan accordingly. Parking at BUHS is limited and fills up quickly during the day. Limited Contractor parking may be made available during construction.

### 3.4.3 Travel and Living Requirements

There is no on-site accommodation available for Contractor's staff. The contractor is responsible for all travel and living requirements.

### 3.4.4 Site Usage

The worksite to be kept clean and safe at all times. Site clean-up and disposal of garbage is a requirement of this contract. All waste materials must be removed from site.

Propane is **NOT** available on-site for the Contractor for project-required work and Contractor will be required to supply their own propane and related components.

### 3.4.5 Access to Premises

The Contractor must identify when they require access to the premises so that Parks Canada staff can arrange access. While PCA staff will make every effort to accommodate, a negotiation of date(s) and time(s) may be required.

## 3.5 Supporting Information

Parks Canada has included the following information as part of the Statement of Work:

- Banff Upper Hot Pool - Final Design Drawings (excerpts)
- Photos – Existing Conditions

PCA makes no claims to the accuracy of drawings, and will not be held responsible for any discrepancy between drawings and actual site conditions. The Contractor is responsible to ascertain the site conditions to their satisfaction before submitting a bid.

## 3.6 Timeframe and Delivery Dates

The Contractor must complete the project before May 16, 2024.

## 3.7 Contractor Qualifications

After contract award, the contractor will be required to obtain a business license for Banff National Park.

The contractor must be a certified EcoFinish installer or have demonstrated prior installation experience with the Protech Polyarmor coating system. The Contractor must also be able to demonstrate experience in tiling and concrete repair work.

## 4 Additional Contractor Responsibilities

### 4.1 Contractor Team

The Contractor is responsible for co-ordinating and directing all contractor and sub-contractor team activities. The contractor team must be comprised of qualified professional and technical expertise with extensive relevant experience and must be capable of providing the services identified in this requirement

### 4.2 Standard of Quality

4.2.1 Contractor must demonstrate that the project will be undertaken utilizing best practices of the professions, manufacturers, and trades involved and must meet or exceed the requirements of all applicable standards and codes.

4.2.2 The Contractor must meet or exceed all provisions set out in the most current version of the EcoFinish High Performance Pool Finishes Installation Manual or Protech Polyarmor Series installation manual.

4.2.3 The Contractor shall provide a warranty on the coating system per that of the product manufacturer(s).

4.2.4 Contractor needs to ensure that work area is clean, safe and secure at all times.

### 4.3 Errors and Omissions

No fee payment will be made by Parks Canada Agency based on the cost of work incurred to remedy errors or omissions, for which the Contractor is responsible.

### 4.4 Changes in Services

The Contractor, if requested in writing to do so, must make any required changes in the work for the project notwithstanding his or her previous approval and advise the PCA Project Authority of any changes to the time, schedule, budget and other implications. The Contractor must provide an estimated cost for the required changes to the PCA Project Authority. No work in relation to a change must commence without the prior written confirmation of approval by the PCA Project Authority.

### 4.5 Health and Safety

The Contractor is responsible for the health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they are affected by conduct of work.

The Contractor must report all accidents to the PCA Project Authority immediately.

Before work is permitted to begin, the Contractor will be required to submit a Site Specific Health and Safety Plan to the Project Authority. The Plan shall refer to the Contractor's Health and Safety

Manual, and shall include specific requirements for the Contract, and a job hazard assessment for all activities required in the course of the work.

The Contractor must comply with and enforce compliance by employees and sub-contractors with safety requirements of contract documents, applicable federal, provincial, territorial and local statutes, regulations and ordinances and with the Contractor's Site-Specific Health and Safety Plan.

The Contractor must comply with Occupational Health and Safety Regulations, General Safety Regulation, Province of Alberta

The Contractor must comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

The Contractor must immediately address health and safety non-compliance issues identified by authority having jurisdiction or by the PCA Project Authority. Provide PCA Project Authority with written report of action taken to correct non-compliance of health and safety issues identified. PCA Project Authority will stop work if non-compliance of health and safety regulations if not corrected.

The Contractor must give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for work.

#### 4.6 Environmental Impacts

#### 4.7 Damage Caused by Contractor

Damage caused by Contractor operations must be repaired by the Contractor at their expense. On completion of the contract, the Contractor must make good any damage to the site caused by their operations at their own expense, including but not limited to Parks Canada infrastructure.

#### 4.8 Environmental Considerations

##### 4.8.1 Wildlife

All food and garbage must be stored in wildlife proof containers. Any problems including aggressive encounters with wildlife shall be reported immediately.

##### 4.8.2 Environmental Mitigations

Contractors are responsible to provide a spill response plan as part of their site specific Health and Safety Plan. Spill kits of sufficient size to contain and clean up 110% of the site's largest possible fuel/chemical spill must be retained on site at each location of potential spills (sites where equipment is working). All personnel on site must be aware of the kits, their location and proper use. Spills of greater than 5 litres, or any spills in water, of fuel, lubricant, oil, hydraulic fluid, chemical or solvent must be contained, cleaned up and immediately reported to the PCA Departmental Representative.

Waste materials must be contained and removed from site in a timely manner by the Contractor and workers and disposed of at a proper waste disposal facility outside of Banff National Park

#### 4.9 Risk Management

The Contractor must perform work with adequate safety personnel to monitor safety and mitigate risk to assets. Although the Hot Springs themselves will be closed to the public for the duration of the project, there will be Parks Canada staff and Contractors working in the nearby vicinity.

## 5 Project Administration Requirements

### 5.1 Project Management

The Parks Canada Agency Project Authority:

- Facilitates a contract between the successful Contractor and Parks Canada;
- Will perform general Project Management duties, as required;
- Arrange meetings as required throughout the duration of the project, for all members of the project team, including representatives from Parks Canada and Contractor; and
- Meetings will normally be held on-site.

The Contractor must:

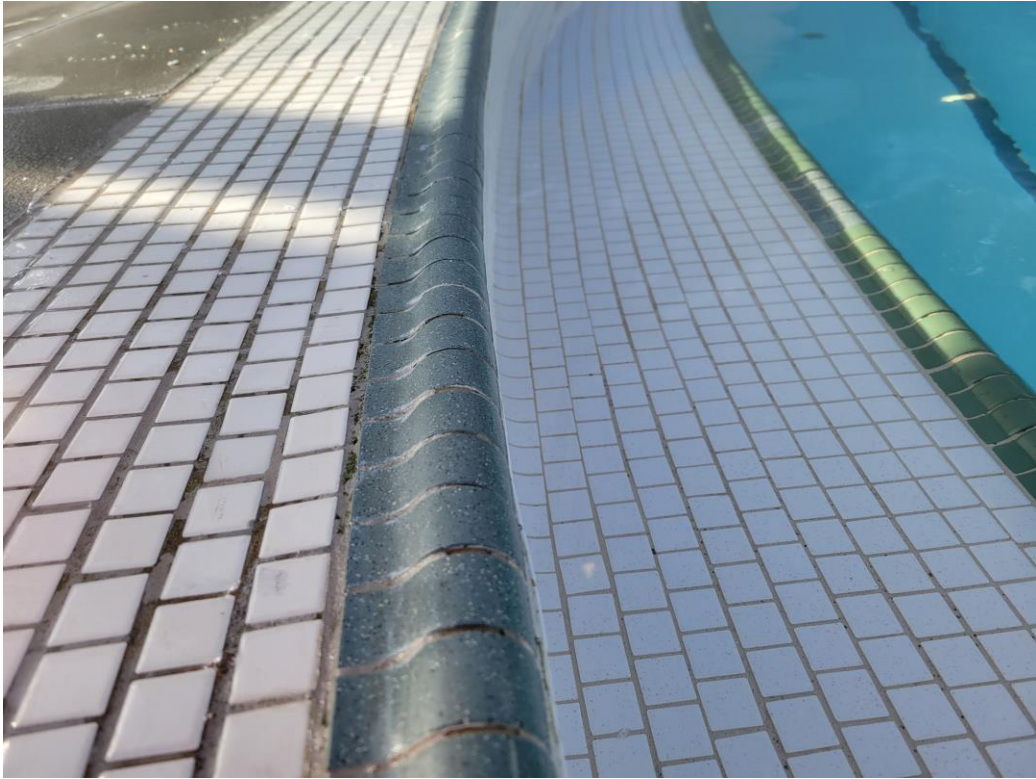
- Attend the meetings;
- Answer any questions as required;
- Advise Parks Canada when work is nearing completion so that final site inspection can be arranged prior to invoices being issued; and
- Advise Parks Canada in writing of outstanding information needed to proceed with the project.

### 5.2 Lines of Communication

All formal directions regarding project scope, budget, schedule, etc. must come from the designated Parks Canada Agency Project Authority, in writing.

5 Photos





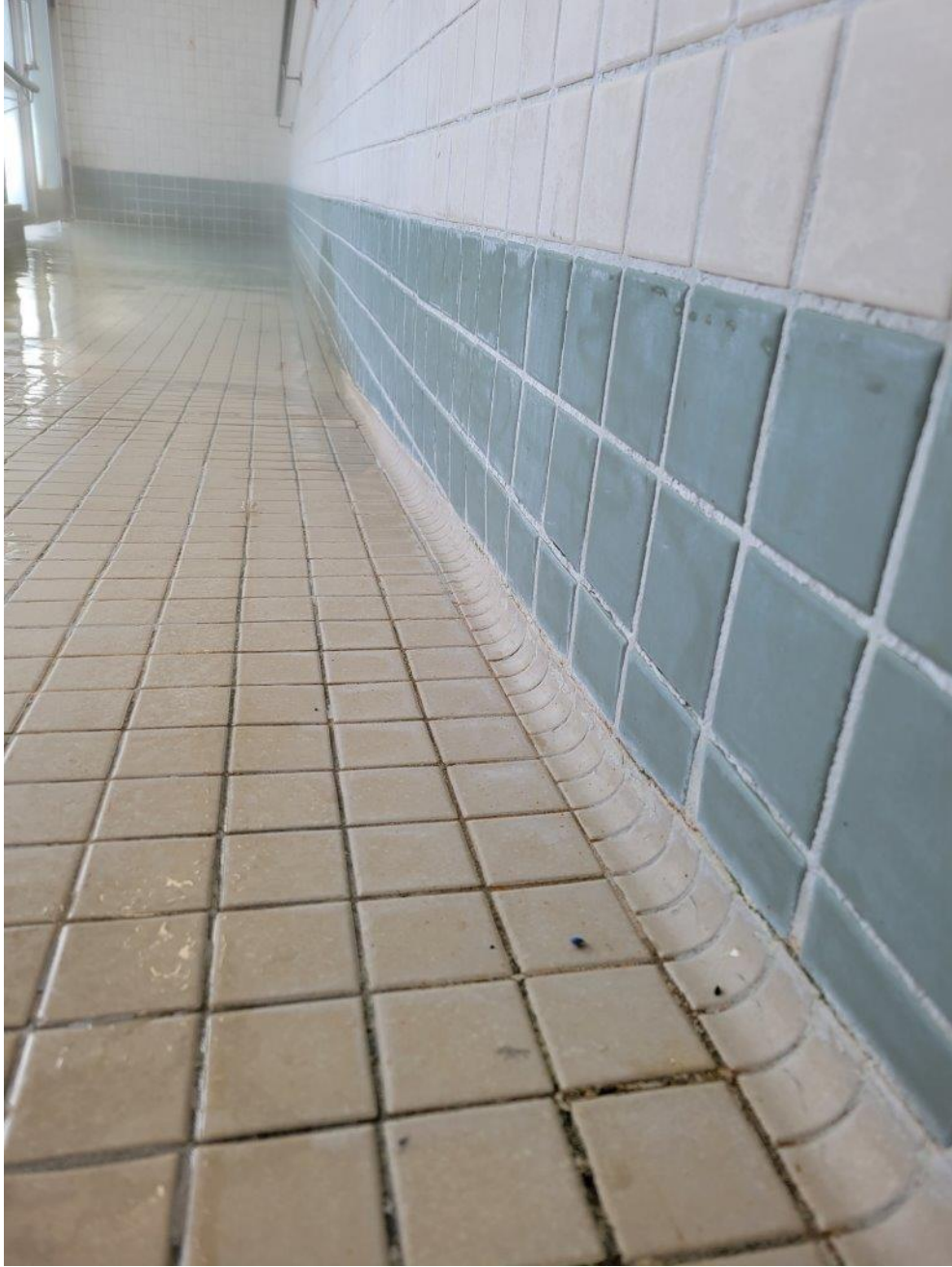








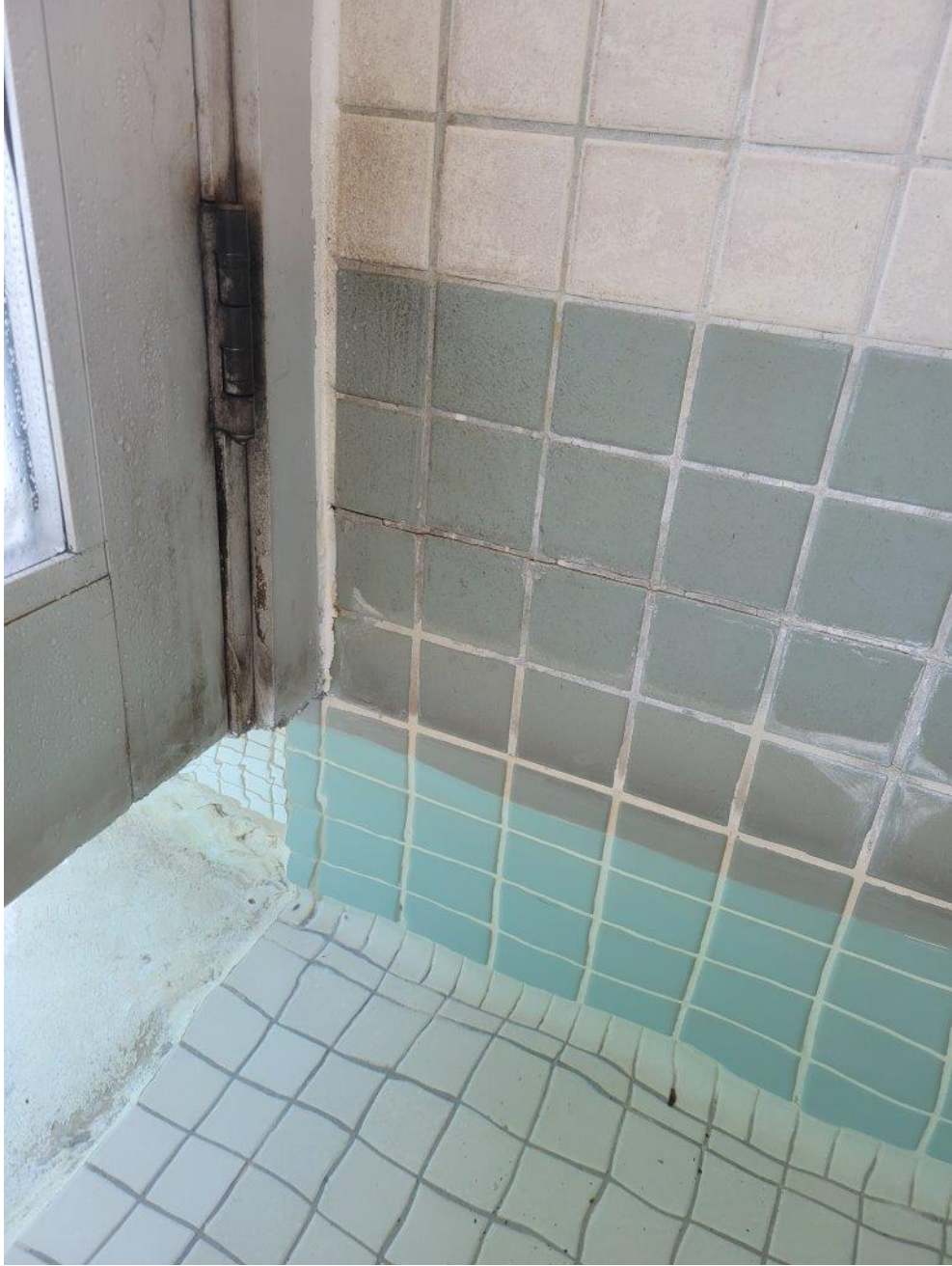










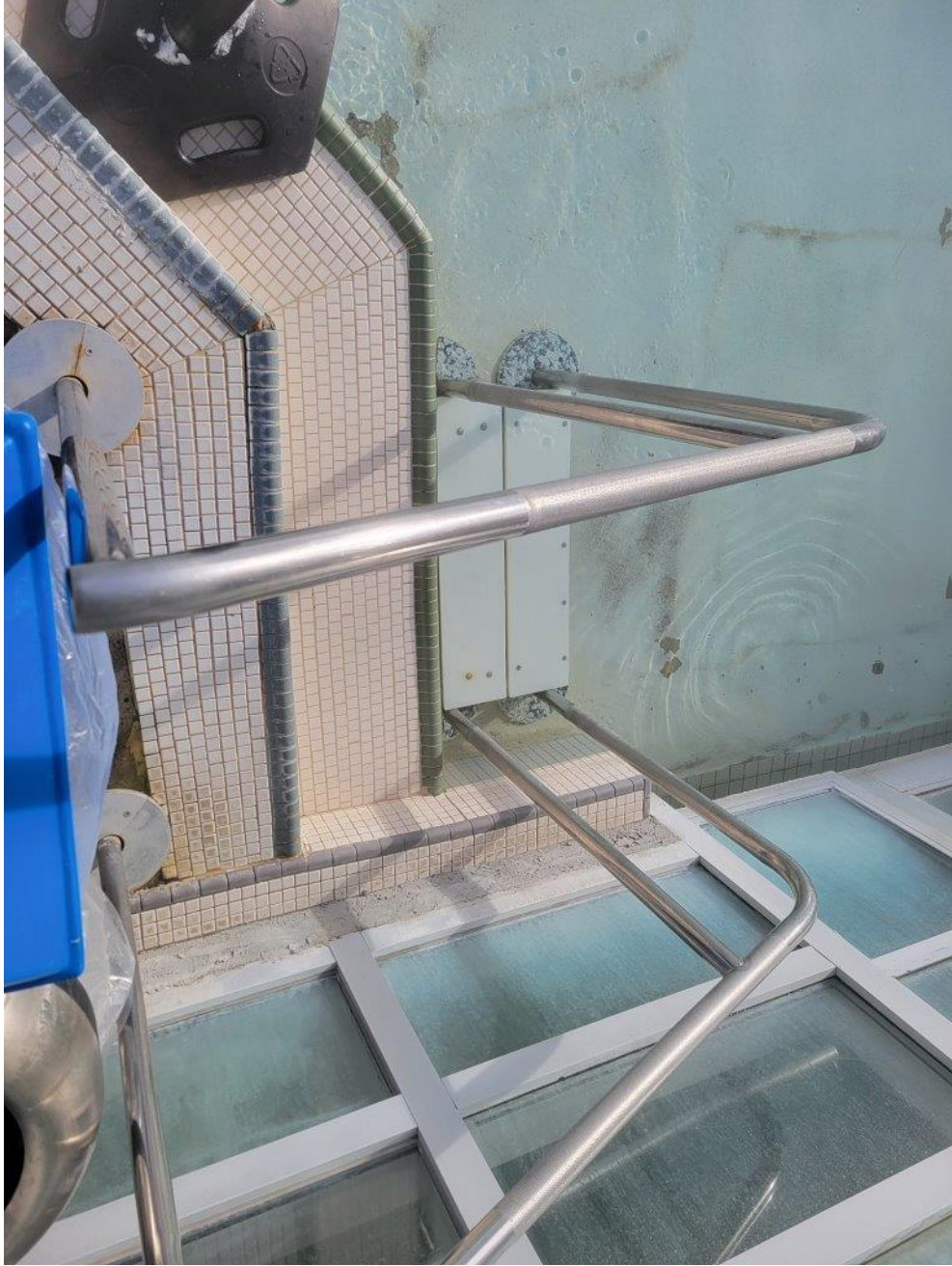




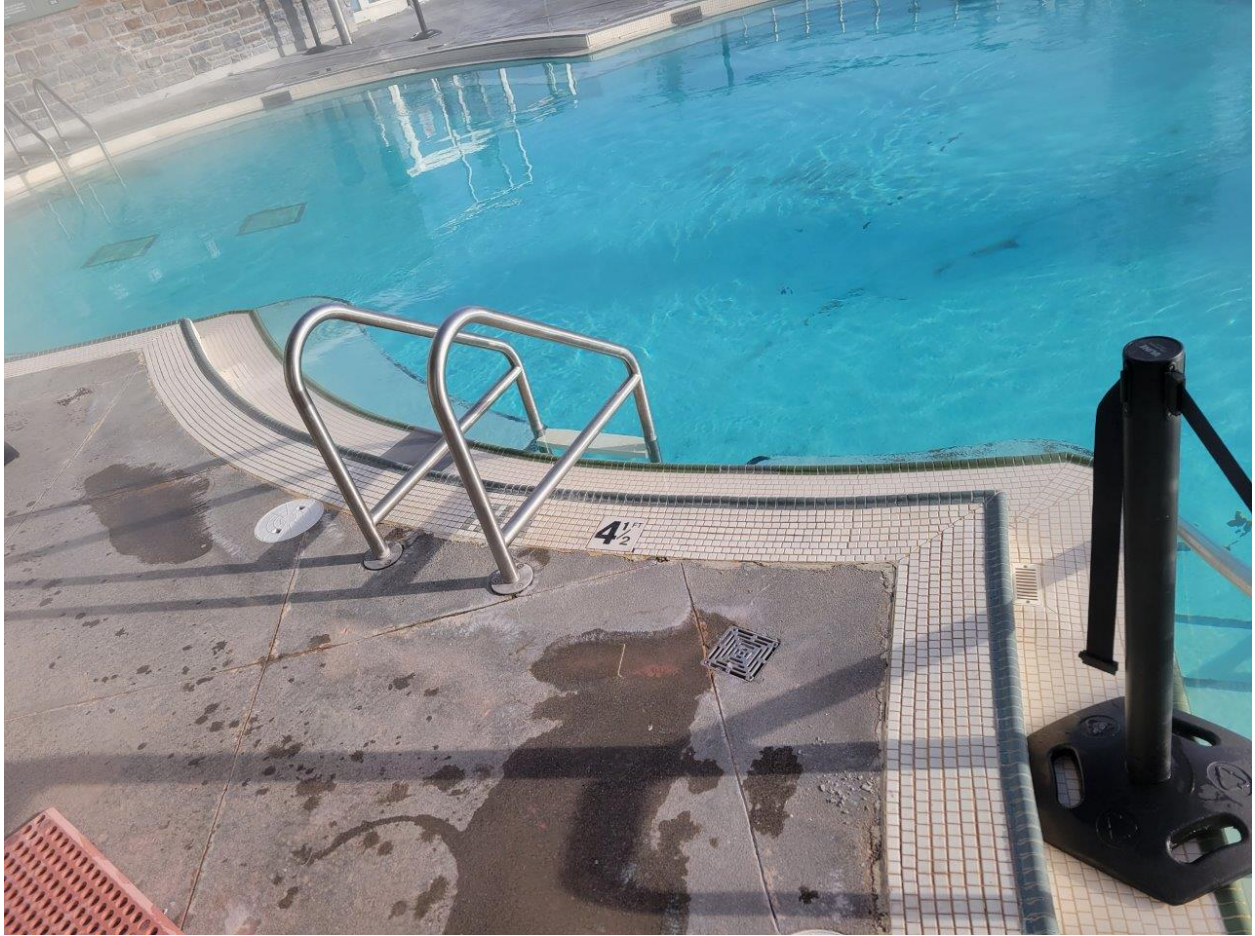


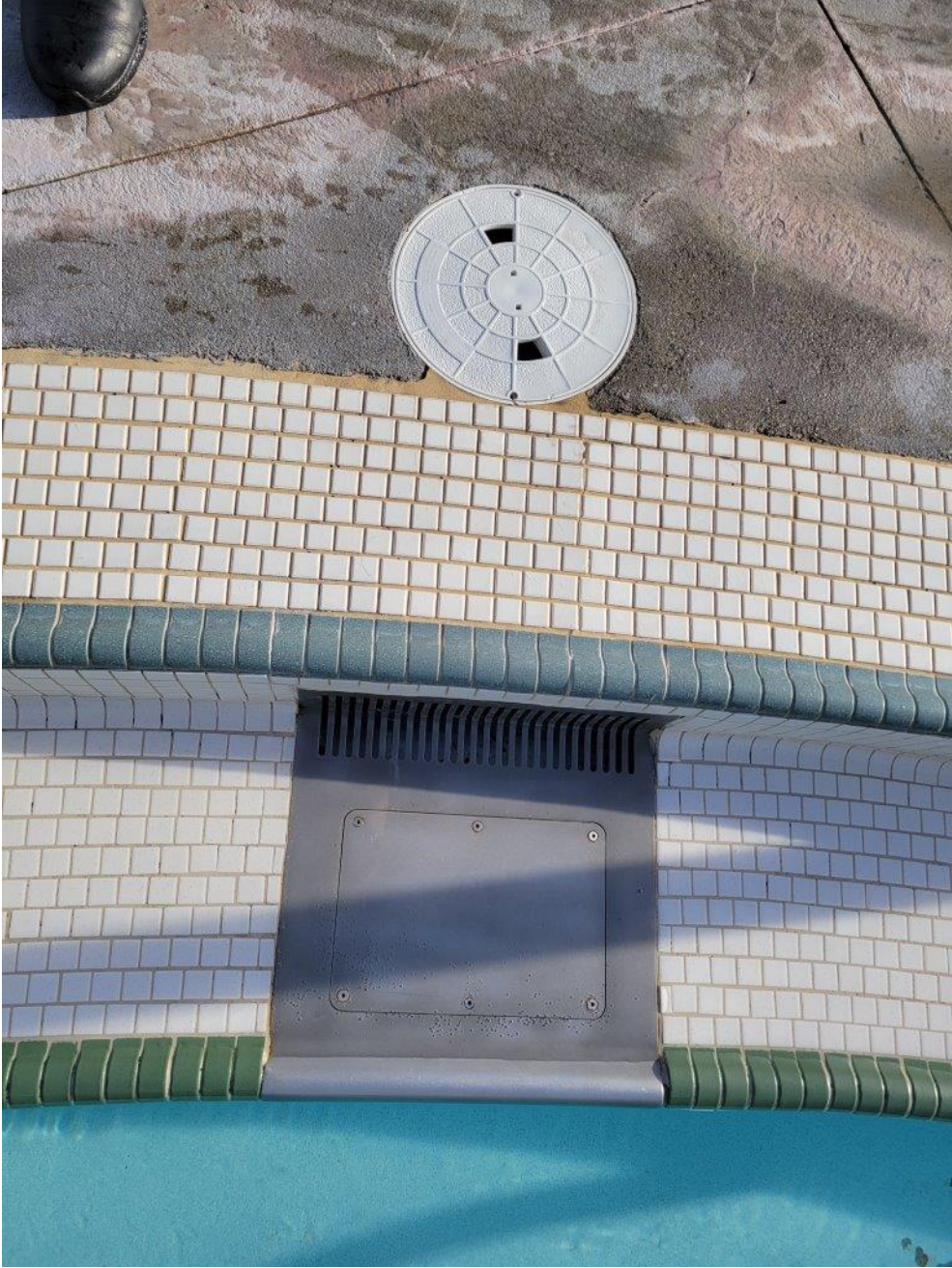


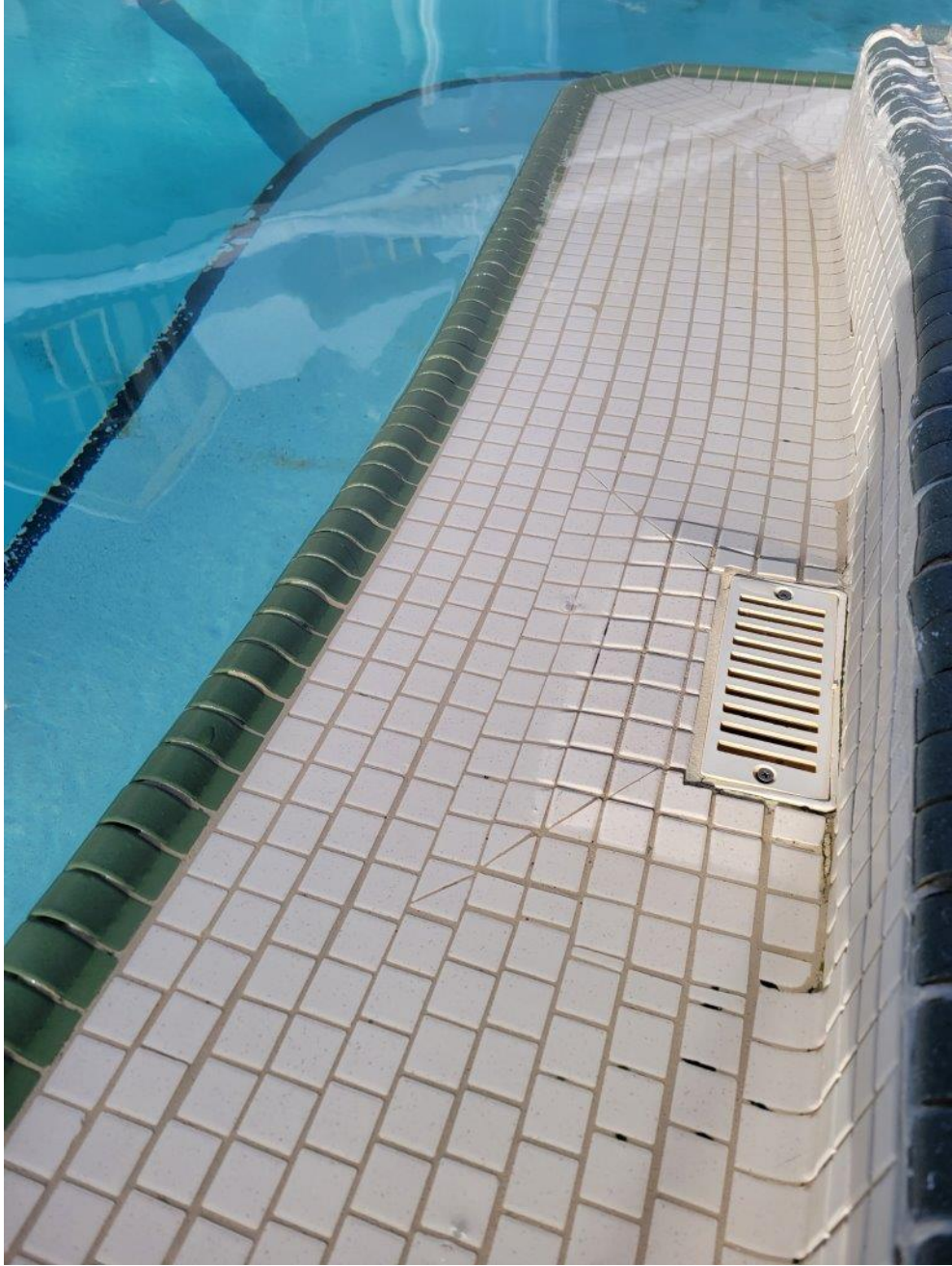






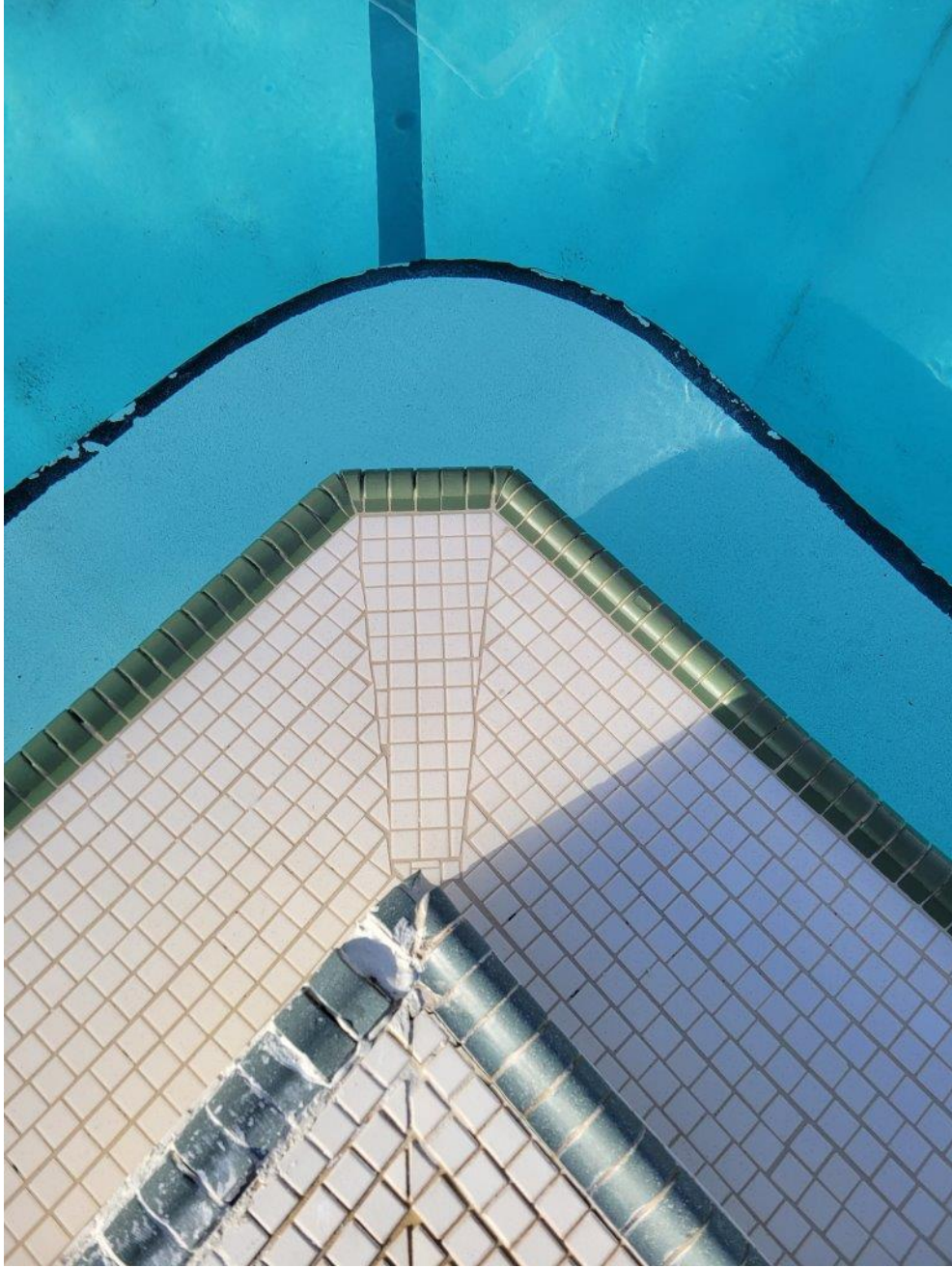


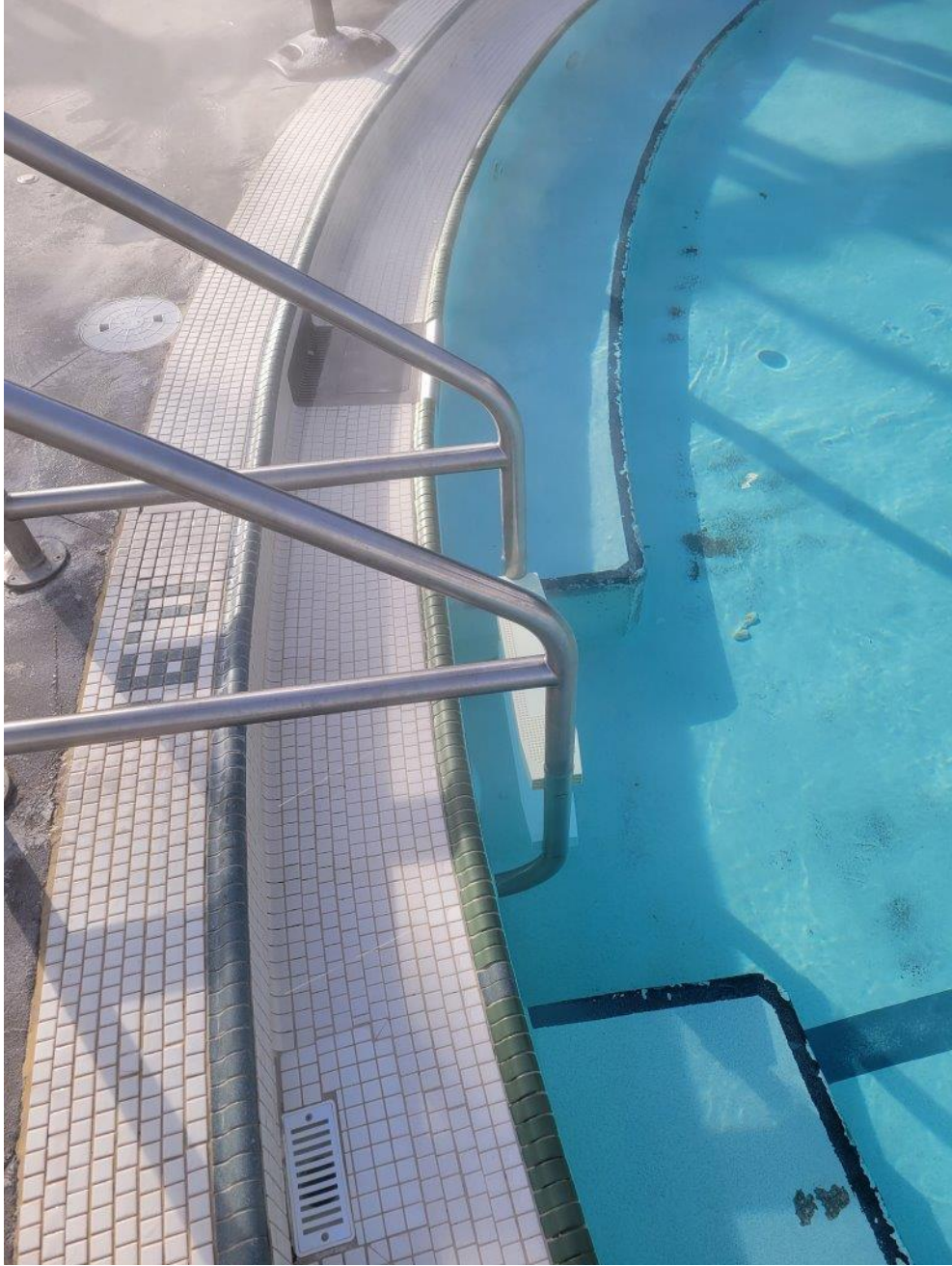




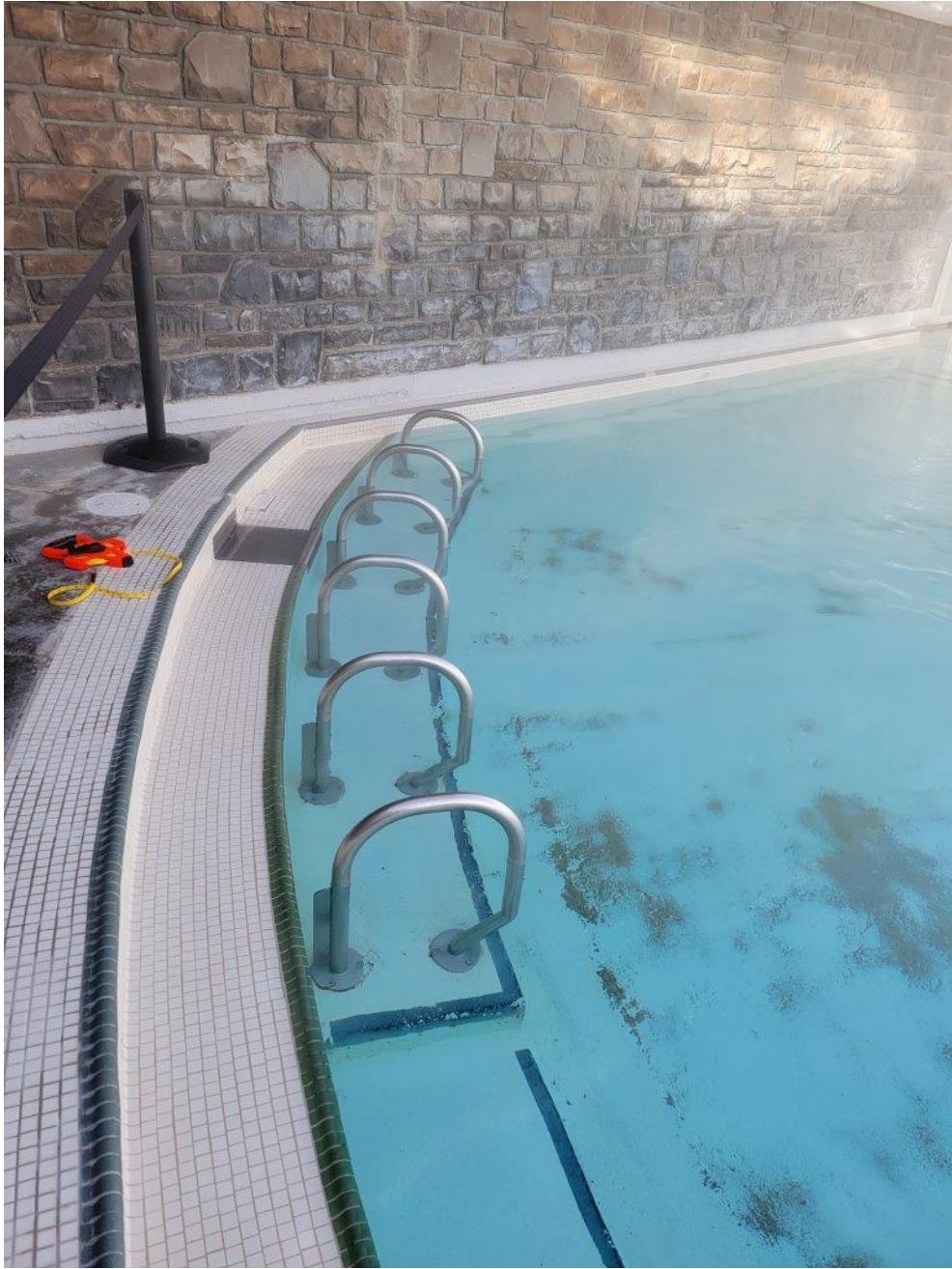


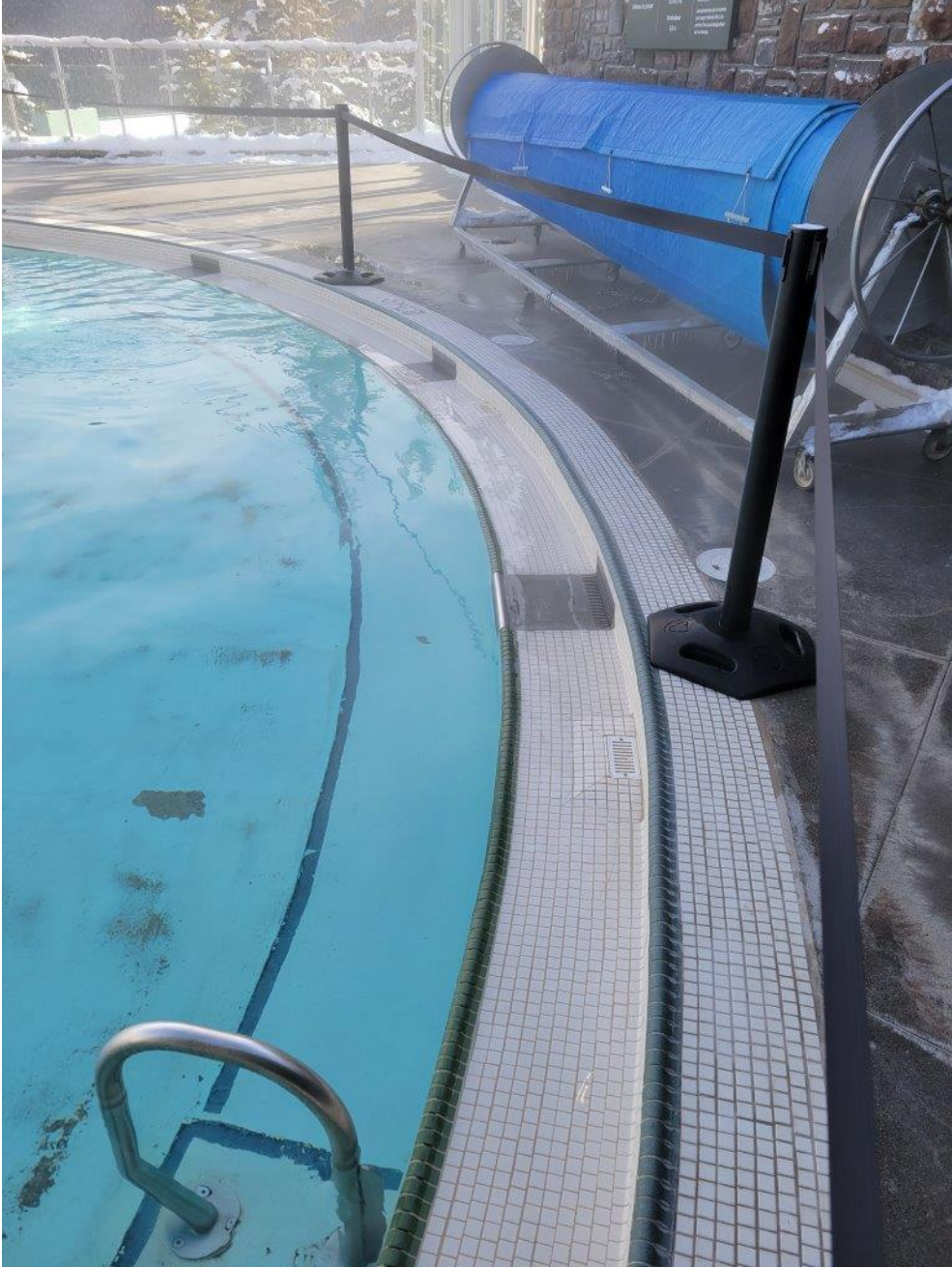


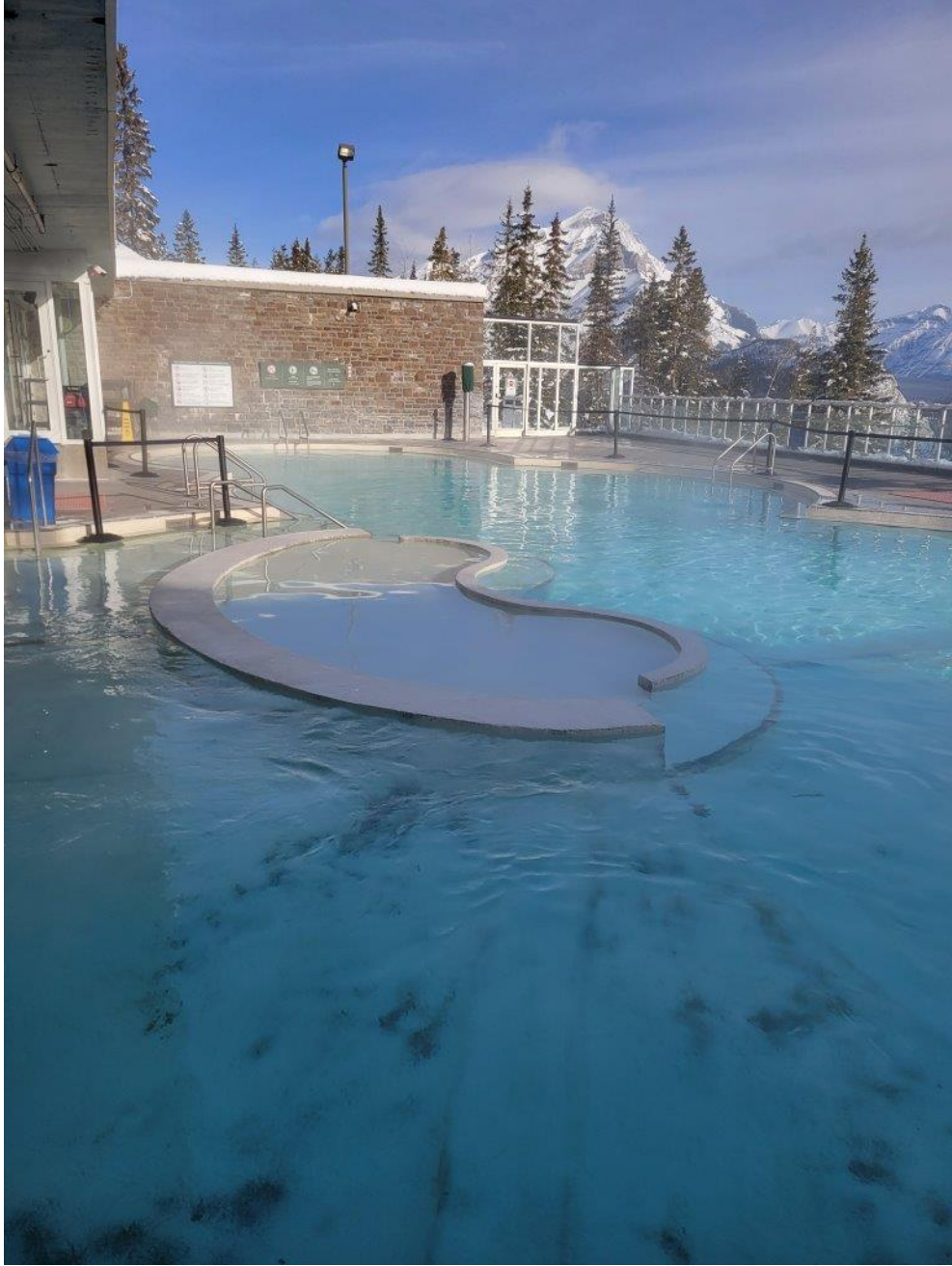


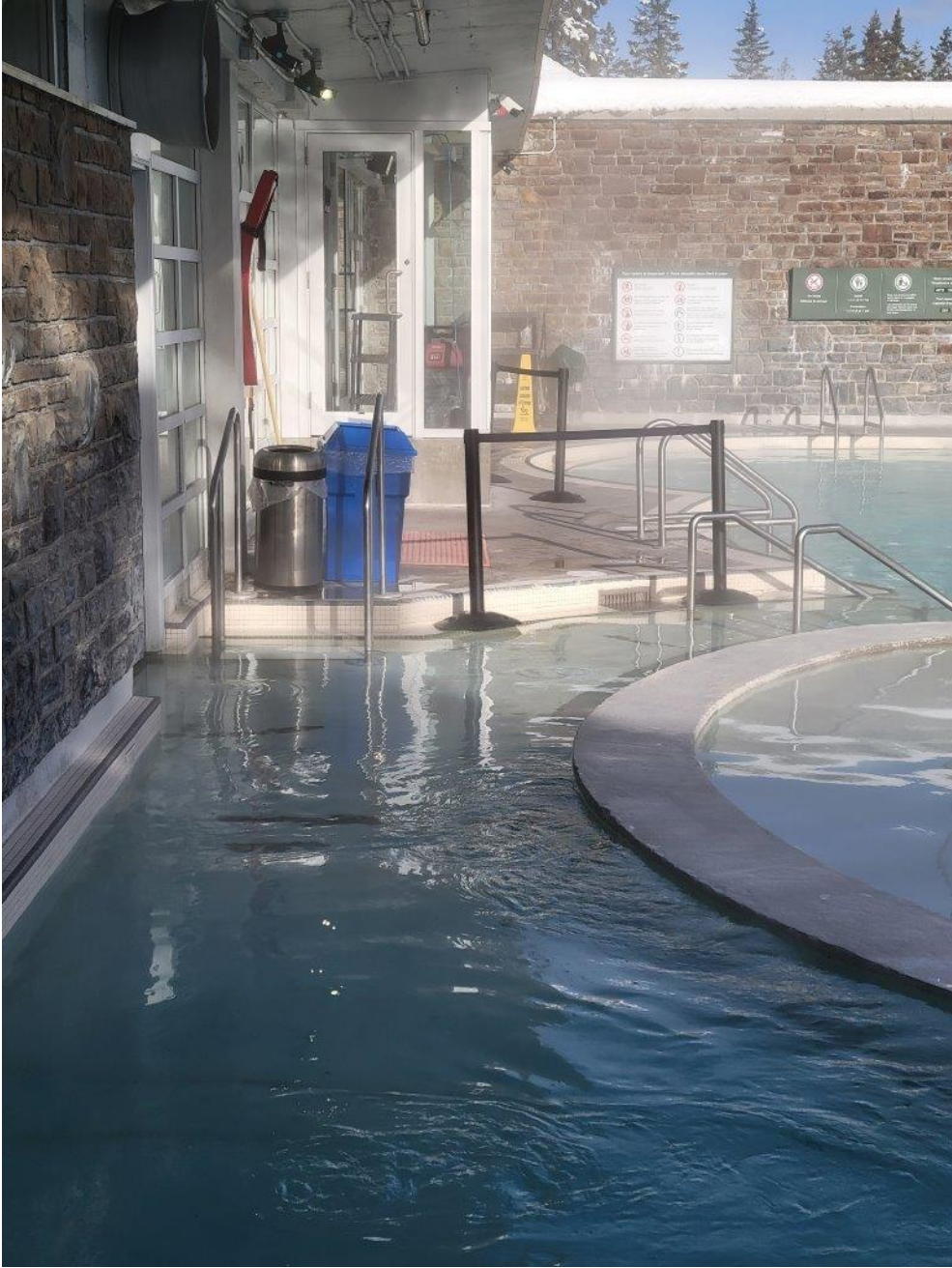


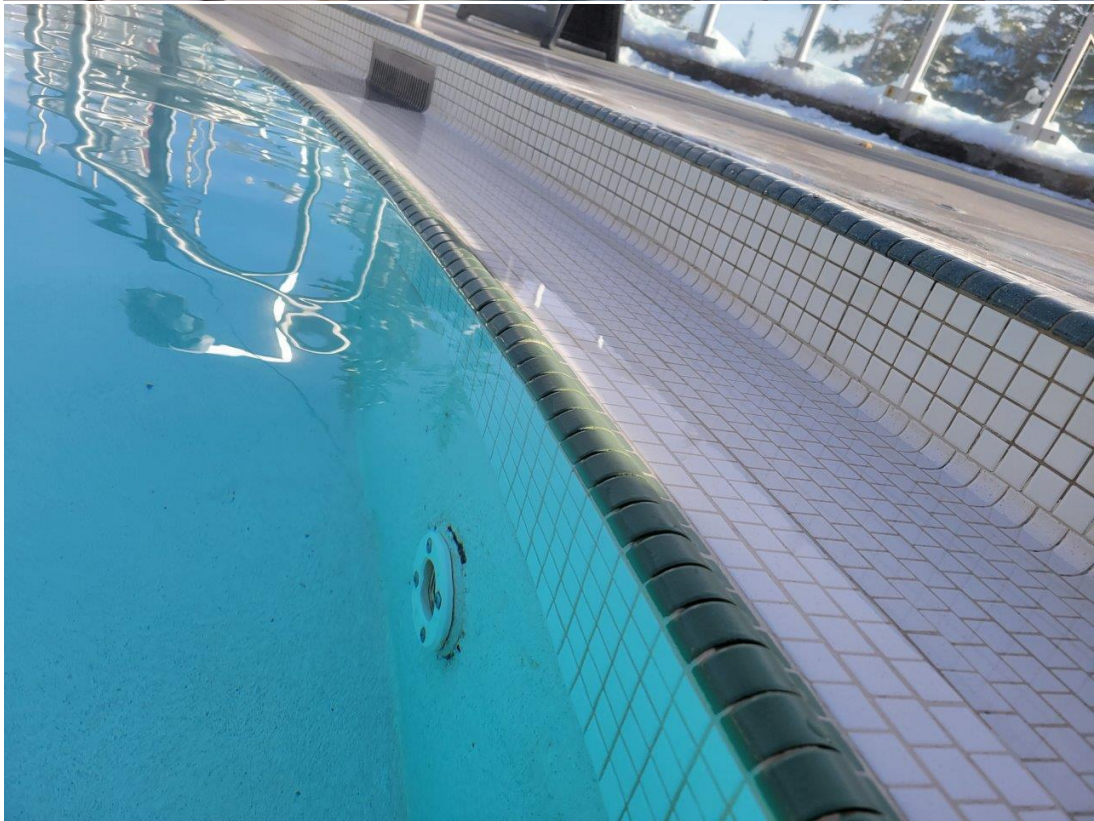
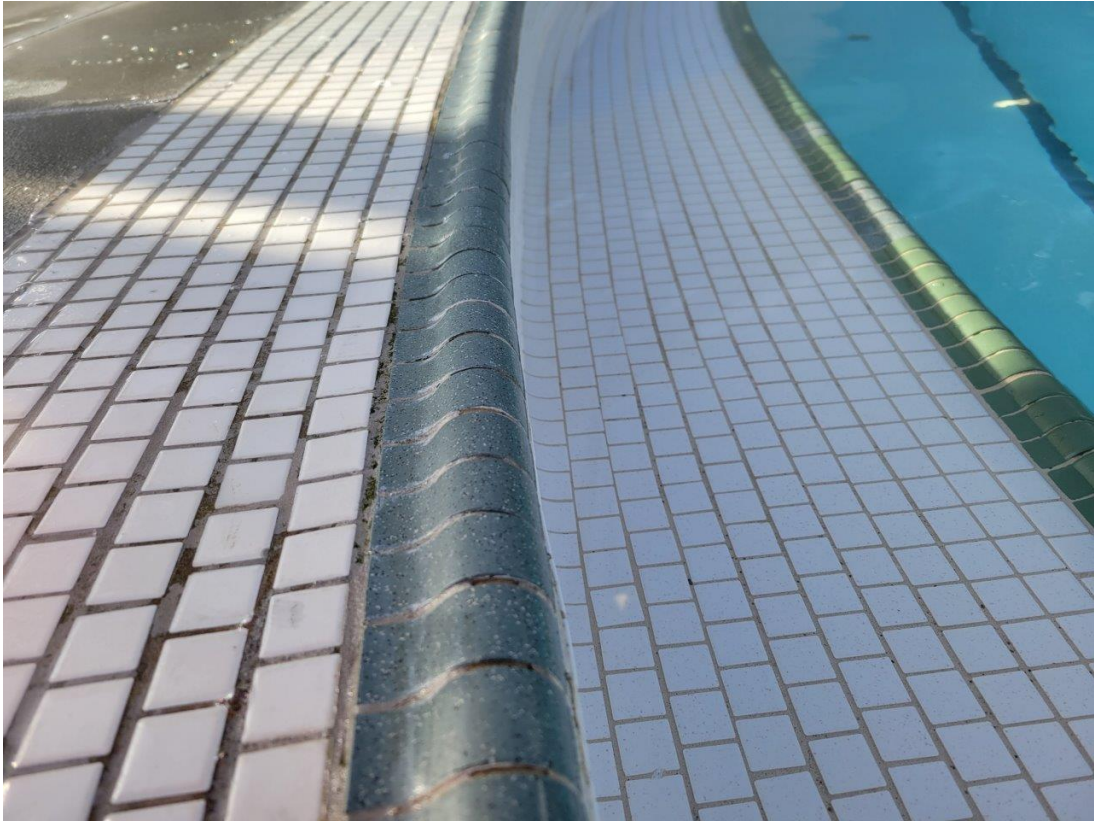






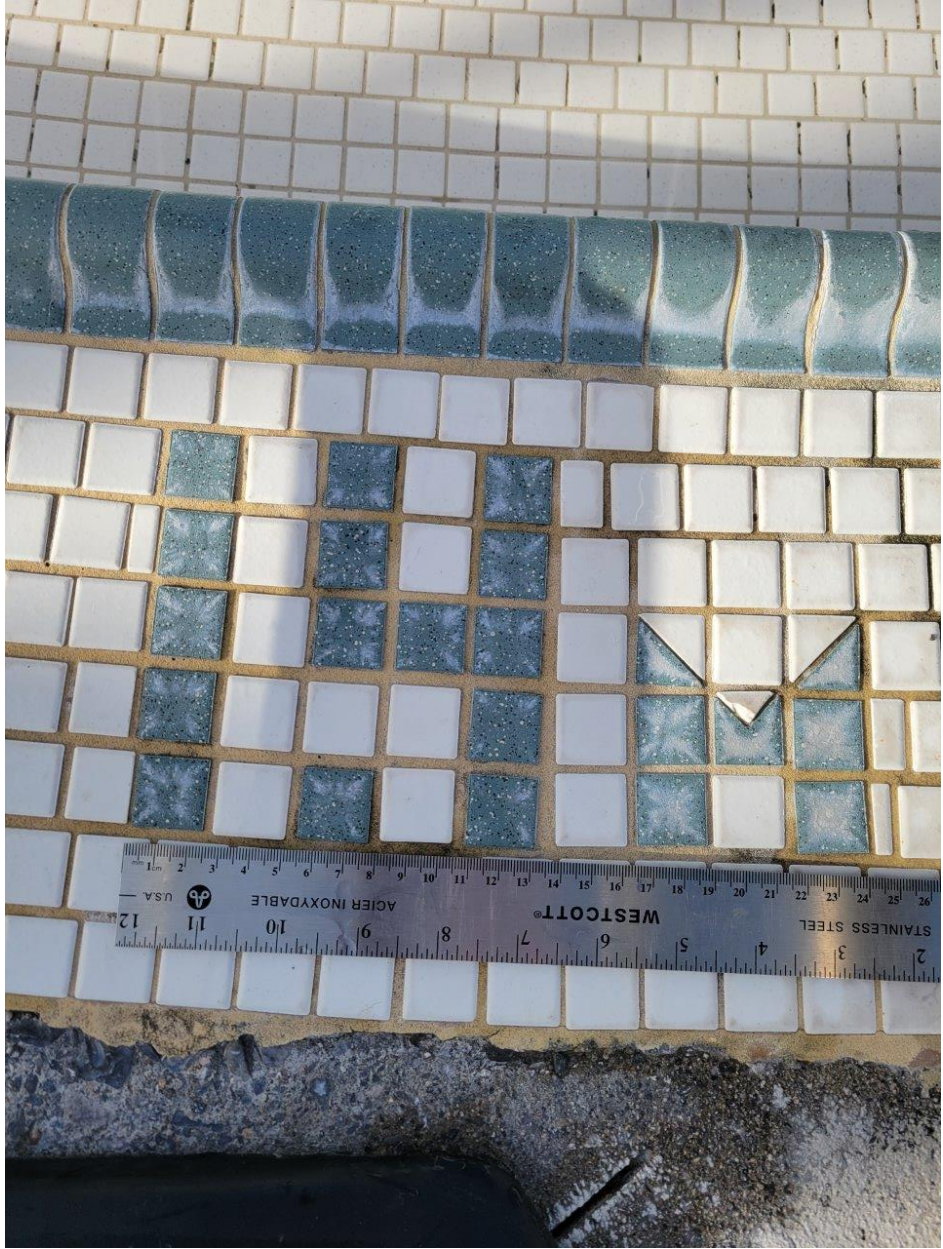




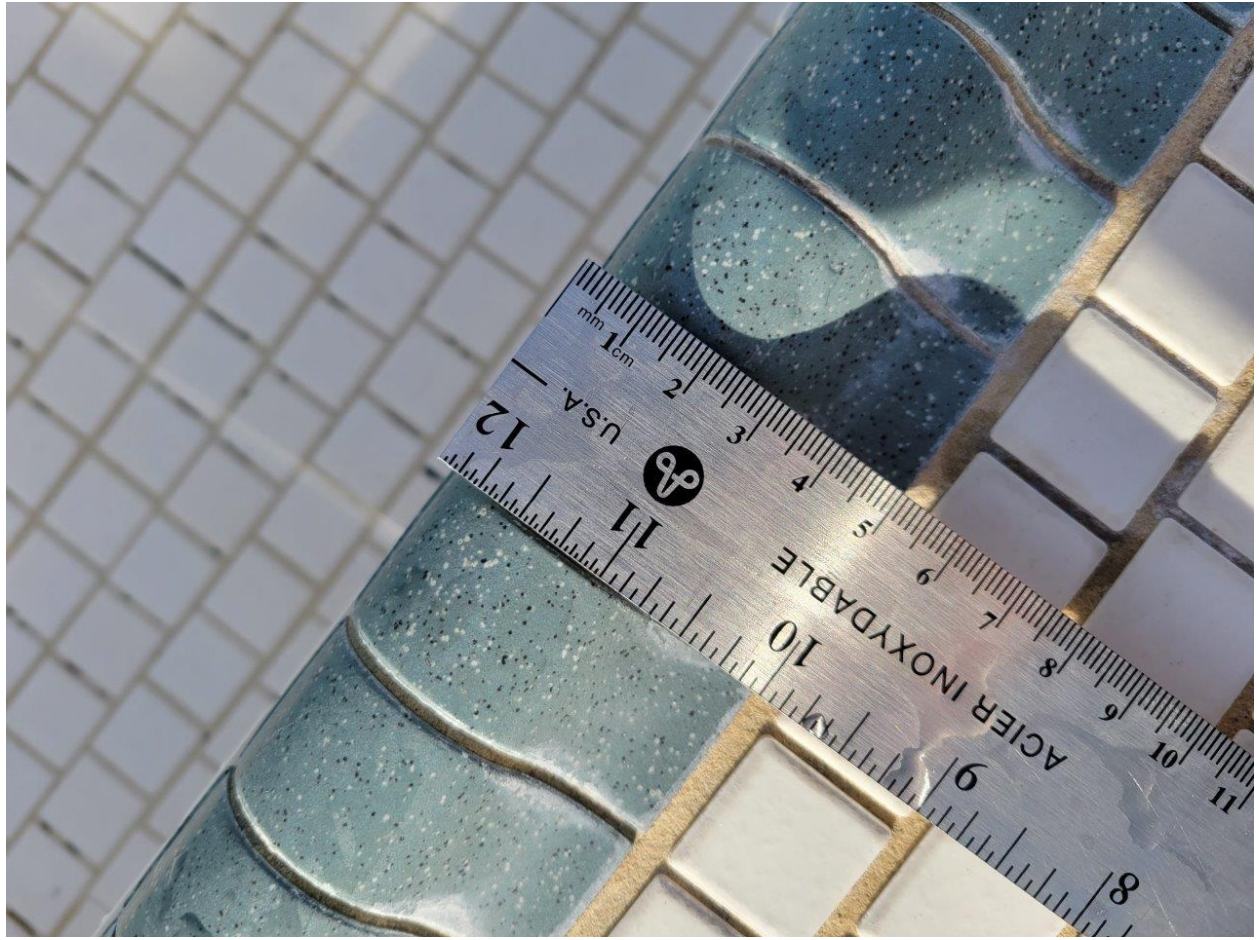












# 6 Existing Drawings

