



To: Mayor and City Council
From: Keith Abraham, Parks and Recreation Director
Date: September 6, 2024
Subject: Fitch Family Indoor Aquatic Center Update and Construction Errors

PROJECT UPDATE:

Construction is moving ahead on the Fitch Family Indoor Aquatic Center and representatives from Story Construction (Construction Manager) and RDG Planning and Design (Architect) will be at the September 10 City Council meeting to provide an overview of progress thus far. Staff has informed these team members that City Council would benefit from periodic progress updates in the future as well.

CONSTRUCTION ERRORS:

The surge tank, pump pit, and backwash basin were installed in mid-August and construction errors were discovered by Story Construction on Friday, August 30. On Tuesday, September 3, staff was informed of these errors. On Thursday, September 5, Staff met with Story Construction, RDG, Water's Edge Aquatic Design (project aquatic designer), and KPF (project structural engineer) to further understand the errors and discuss possible solutions.

Two issues were brought to the attention of the City Staff:

Issue 1. A vapor barrier was installed beneath the surge tanks slab as is required. However, rigid insulation was not installed beneath the slab as shown in the pool design plans.

Issue 2. A vapor barrier and insulation were not installed beneath the slab for the pump pit and backwash basin.

The work related to both of these issues was performed by Sande Construction.

ISSUE 1. INSULATION:

A pre-installation meeting with Sande was conducted by Story Construction and the vapor barrier was discussed at that time. Installing insulation under these slabs was not

discussed as the insulation was not shown on the architectural drawings that were being reviewed. The insulation detail was later found on a diagram showing the placement of equipment in the surge tanks, pump pit, and backwash basin.

Water's Edge provided the following comments regarding the insulation under the slabs:

"Sheet SP-F3 of the original documents showed rigid insulation on the vertical pit walls and under the horizontal pit slabs. Rigid Insulation should be installed on the pit walls. Reference the architectural wall details for the insulation requirements.

Rigid insulation under the horizontal pit slabs shown on Sheet SP-F3 in the original documents was inadvertently included. The insulation under the horizontal slab is overdesign. It is not needed for thermal protection."

In addition, KPFF, (the structural engineer) stated that the insulation below the slabs does not need to be there as it provides no benefit to the overall structural integrity of the building.

Therefore, a decision has been made by the design team not to require the horizontal insulation be installed under the surge tanks, pump pit, and backwash basin. This recommendation is found in that attached letter from RDG.

ISSUE 2. VAPOR BARRIER:

Due to the contamination in the northeast corner of the site, the decision to install a vapor barrier was made during the design phase and is clearly shown in the drawings. Having this vapor barrier is a level of protection that is important to City Council, staff, and, most importantly, Ames residents and potential users of the facility. Sande did install the vapor barrier under the surge tanks, but did not install it under the pump pit and backwash basin. This must be corrected.

Story Construction is rejecting the work of the pump pit and backwash basin due to the vapor barrier not being installed. Story's recommendation is attached. This will require Sande Construction to remove this material, install a vapor barrier, and construct the pump pit and backwash basin according to the plans without the insulation under the slab. Time is of the essence, so Story/RDG is issuing a Construction Change Directive (CCD) as Sande will need to tear out work and procure new materials such as floor drains, embeds for precast concrete panels, rebar, etc. This will be at no cost to the City.

STAFF COMMENTS:

The construction errors by Sande Construction is unfortunate, but it was discovered by Story Construction and can be corrected before the framing steel and precast concrete panels are ready to be installed. Staff discussed with Story and RDG representatives the City's expectation that the building be constructed according to the plans and specifications and they need to ensure the prime contractors understand this as well. Staff is not asking City Council to take any action at this time, but share this information to be

transparent regarding these construction errors, especially as it relates to the important vapor barrier component.

ATTACHMENT(S):

[Story Construction Recommendation Rejection of Pump Pit and Backwash Basin.pdf](#)

[RDG Recommendation of Rejection of Work_9.6.2024.pdf](#)