



REQUEST FOR COMMISSION ACTION
CITY OF INDEPENDENCE
July 23, 2020

Department Utilities

Director Approval Terence Lybarger

AGENDA ITEM Consider options for modifications to the filter building as part of Phase II of the Water Treatment Plant project.

SUMMARY RECOMMENDATION Approve the modifications included in Option 2.

BACKGROUND A Preliminary Engineering Report (PER) was developed in 2017 that outlined proposed improvements to the water treatment plant. Improvements discussed included modifications to the existing filter building. The existing filter building includes administration space consisting of an office, laboratory, restroom/locker room, and treatment process space with chemical feed equipment and filters. The current administration space has a small entry and no breakroom area for staff to congregate for meetings or to eat during shifts in a space away from the office and laboratory. The 2017 PER presented two potential layout options that constructed an addition to the front of the building and reconfigured the existing administration space to add an entry, breakroom, and showers. Figures 1 and 2 show the options noted in the original PER from 2017. Figure 1 shows a stair entrance similar to the existing with shared restroom facilities and separate spaces for a locker room and breakroom. Figure 2 shows an ADA compliant ramp for building access, separate restrooms for men and women and a shared locker room/breakroom space. The 2017 PER included a preliminary look at potential layout options but did not include a detailed code or feasibility review. Once the Phase 2 work was initiated, it was determined that an ADA compliant entrance would be required. The options developed with the 2017 PER are shown for comparison of the internal space configurations.

BUDGET IMPACT This portion of the project is included in the \$3.100,000 State Loan.

SUGGESTED MOTION I move to approve option 2 modifications to the filter building as part of Phase II of the Water Treatment Plant project.

SUPPORTING DOCUMENTS Memo from PEC

MEMO



TO: City of Independence
811 West Laurel Street
Independence, KS 67301

ATTENTION: Terry Lybarger, Director of Utilities

FROM: Chuck Mitchell, PE

REFERENCE: Independence Water Treatment Plant
Filter Building Modifications

DATE: July 6, 2020

PROJECT NO.: 35-190768-001

PROJECT: Independence Water Treatment Plant
Phase 2 Improvements

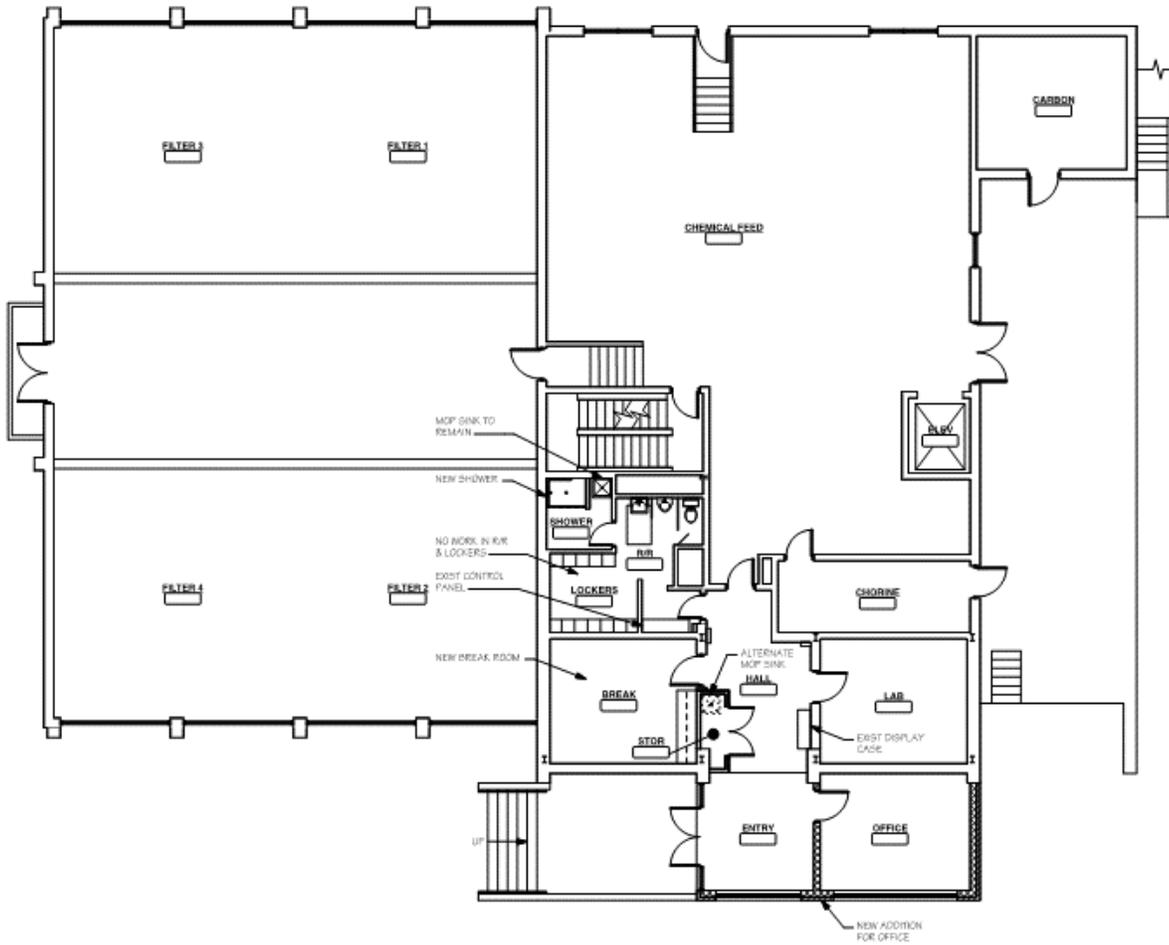
COPIES TO: Sarah Unruh

Please advise immediately of any misconceptions or omissions you believe to be contained herein.

Introduction

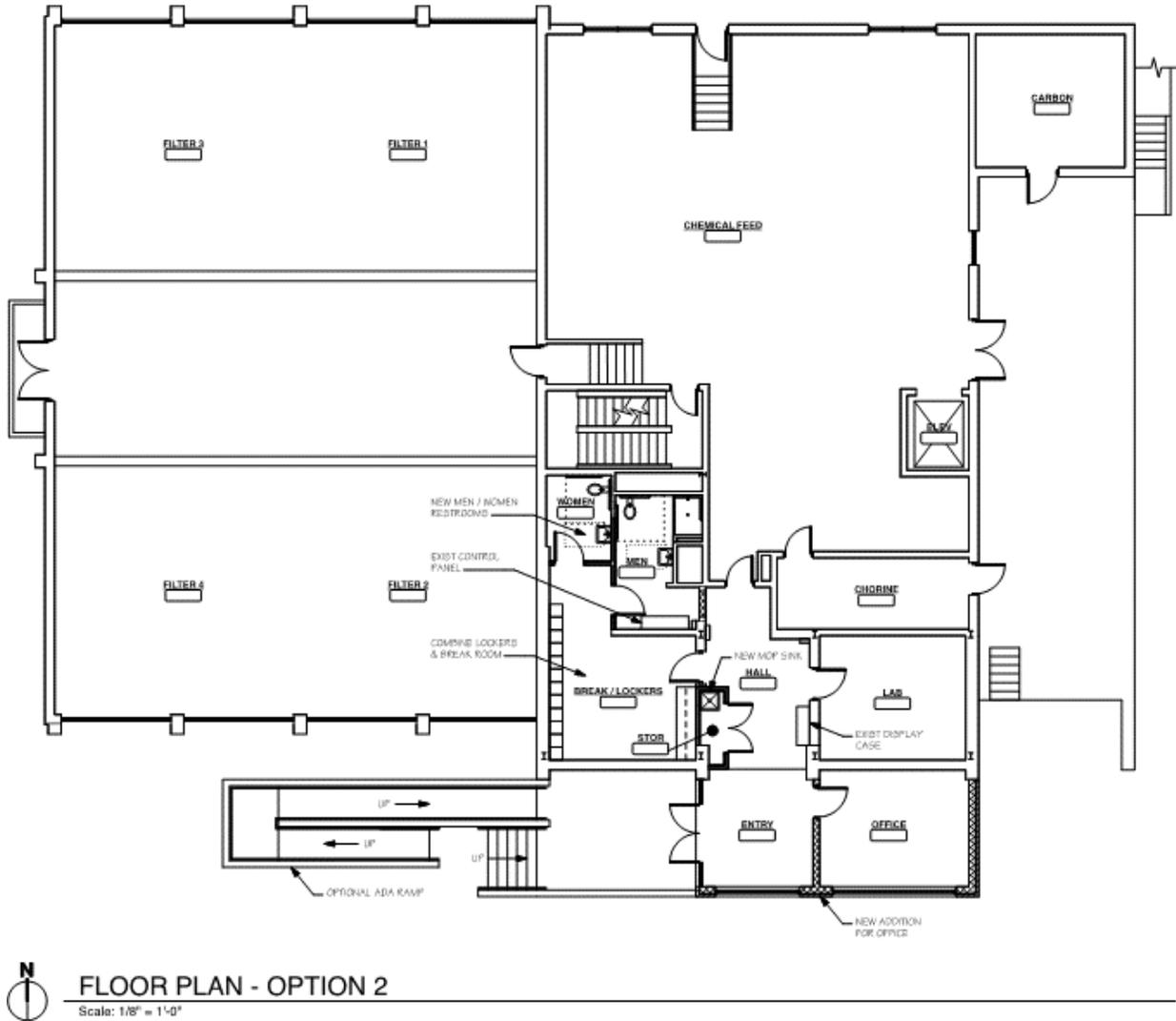
A Preliminary Engineering Report (PER) was developed in 2017 that outline proposed improvements to the water treatment plant. Improvements discussed included modifications to the existing filter building. The existing filter building includes administration space consisting of an office, laboratory, and restroom/locker room, and treatment process space with chemical feed equipment and filters. The current administration space has a small entry and no breakroom area for staff to congregate for meetings or to eat during shifts in a space away from the office and laboratory. The 2017 PER presented two potential layout options that constructed an addition to the front of the building and reconfigured the existing administration space to add an entry, breakroom and showers. Figures 1 and 2 show the options noted in the original PER from 2017. Figure 1 shows a stair entrance similar to the existing with shared restroom facilities and separate spaces for a locker room and breakroom. Figure 2 shows an ADA compliant ramp for building access, separate restrooms for men and women and a shared locker room/breakroom space. The 2017 PER included a preliminary look at potential layout options but did not include a detailed code or feasibility review. Once the Phase 2 work was initiated, it was determined that an ADA compliant entrance would be required. The options developed with the 2017 PER are shown for comparison of the internal space configurations.

Figure 1 – Original PER Option 1



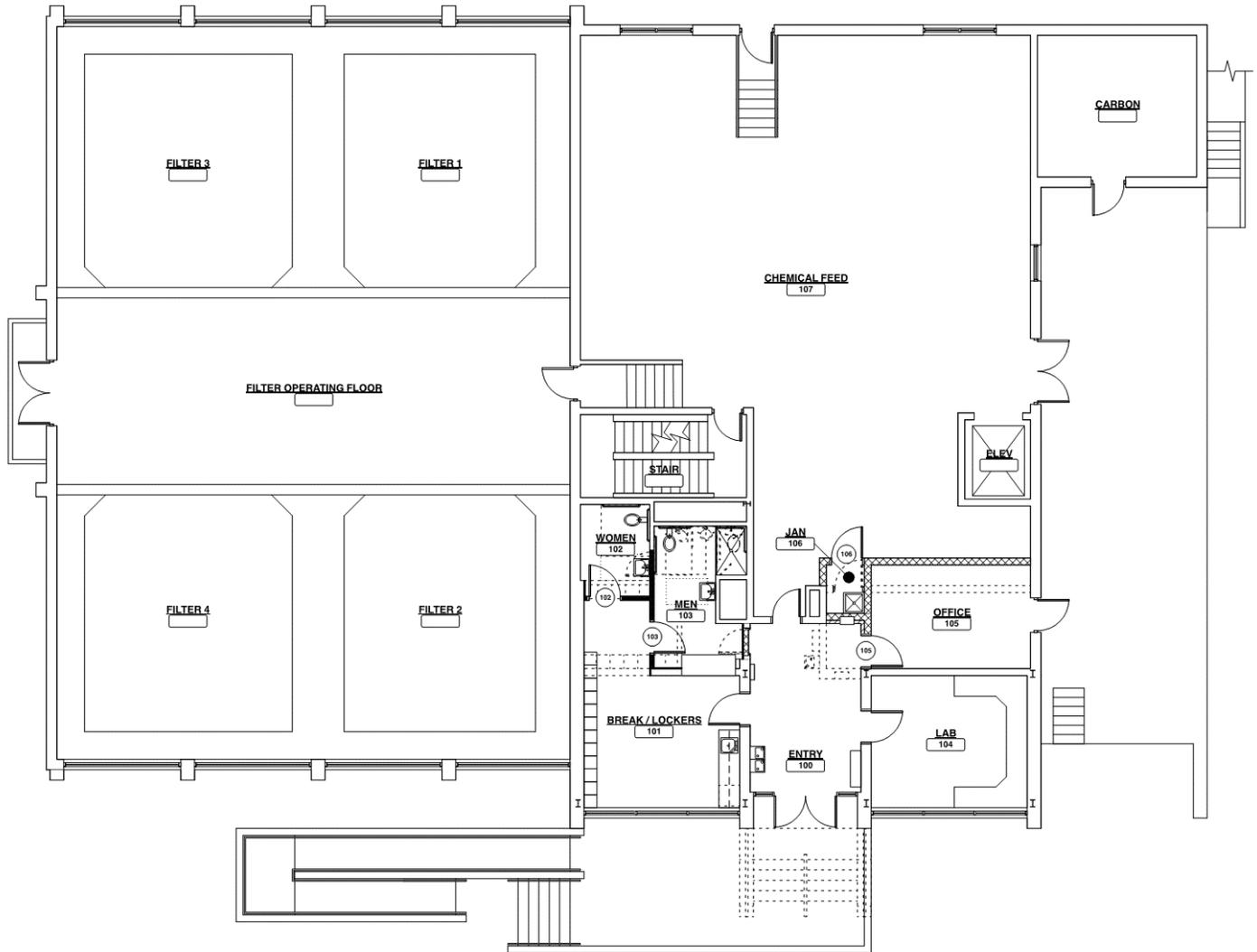
 FLOOR PLAN - OPTION 1
Scale: 1/8" = 1'-0"

Figure 2 – Original PER Option 2



Several of the improvements included in the 2017 PER were completed as a Phase 1 project in 2020. The remaining improvements designated for a Phase 2 project, including the filter building modifications. The Phase 2 improvements are currently in design and the Phase 2 scope of work is based on reconfiguring the existing administration space within the existing footprint to accommodate the requested spaces. A preliminary layout utilizing the existing building footprint is shown in Figure 3.

Figure 3 – Proposed Existing Building Reconfiguration



FLOOR PLAN

Scale: 1/8" = 1'-0"

During initial design discussions for the Phase 2 project, it was determined that the chlorine room space would need to be used for the new office area, and chlorine equipment would be relocated to the proposed new chemical feed building to work within the existing footprint. Staff has requested that the option of extending the building be revisited to accommodate the chlorine feed equipment in the current space.

This memo discusses the two options – utilizing only the existing footprint and constructing an addition to the front of the building to accommodate the requested spaces, including what is required with each option and preliminary construction cost estimates.

Filter Building Modifications

Both filter building modification options will require that current Americans with Disabilities (ADA) requirements be met within the renovated space. This will consist of a ramp as shown in Figure 2 above and doorway widths, restroom accommodations, etc. in the administration spaces as required by the ADA regulations.

Construction of a building addition will allow more long-term flexibility with the new spaces. It will keep the office at the front of the building which allows more distance from the process spaces and noise and provides viewing of the entrance for security and access to the public. If an addition is constructed the chlorine room will remain as is, and equipment will not require relocation. The concerns with the building addition are the limited space between the existing building and the curb to accommodate the addition, and the need to relocate existing utilities that are currently within the footprint of the proposed addition. Utilities that appear on as-built plans for the facility that may require relocation include a 6" building drain, 8" building sanitary sewer, 6" building water service, and possibly a finished water pipeline. The estimated construction cost range for the building addition is approximately \$225,000 to \$255,000. Relocation of utilities is estimated at approximately \$35,000 based on the available facility plans, but this could be greater depending on what is encountered. The total estimate for the building addition option is approximately \$260,000 to \$290,000.

Working within the existing space will limit long-term flexibility and will require that the chlorine room be used for administration space. This will require construction within the treatment process space which may hamper operational tasks for a time period. The new office space would be located within the current chlorine room space which would be farthest from the entrance and adjacent to the noise of the treatment process area. The estimated construction cost range for working within the existing footprint of the filter building is approximately \$180,000 to \$205,000. Relocation of the existing chlorine feed equipment to a new building is estimated to be approximately \$50,000. Total estimate for this option is approximately \$230,000 to \$255,000.