



# Memo

**To:** Honorable Mayor & City Council,

**From:** Utility Superintendent Victor Kane

**CC:** City Administrator Dylan Mulfinger

**Reference:** West Tower Change Order

**Date:** 09/10/20

Greetings,

I am sure you are wondering why we have a change order already on this project. It is not an issue with the project design as I will explain. The additional work needed is to deal with a water flow issue to the tower. Around 2006 the City was mandated to increase water pressure in the higher elevation areas of town. This was done by dividing the water system into two. During this time the City had well issues they had to address. Over this time, we increased the pumping capacity of the 80 well a few years back. The current 42 well project was the final piece which also increased the pumping capacity. With the 42 well recently operable we were able to finally operate all the wells at their full capacities. A great day long awaited.

However, a unforeseen problem surfaced due to the new pump capacities combined with the hydraulics of the divided system. The short version is when the wells run in combination, they quickly overflow the west tower but do not fully fill the east tower. Once the wells shut down the water level equalizes between the two towers and the wells turn right back on again. We cannot control the situation through the well controls. What is needed is an altitude valve. This valve will close the west tower when full allowing the east tower to continue to fill as illustrated here: <https://www.youtube.com/watch?v=Z8-dvs4iRr8>.



Altitude Valve

The contractor will be replacing valves at the tower making this the most feasible time for this installation. The City has the funds to cover this Change order.

Due to this change the contractor has requested to modify the project schedule. With the added work they do not want to chance carrying into temperature issues with the painting. They would like to complete the piping and tower metal work this fall. It will be returned to service until next spring when it will be painted.

I recommend approval of this \$55,000 change order and schedule change.

Thank you for your time.

Victor Kane

From the Desk of  
Oelwein Utility Superintendent Victor Kane