



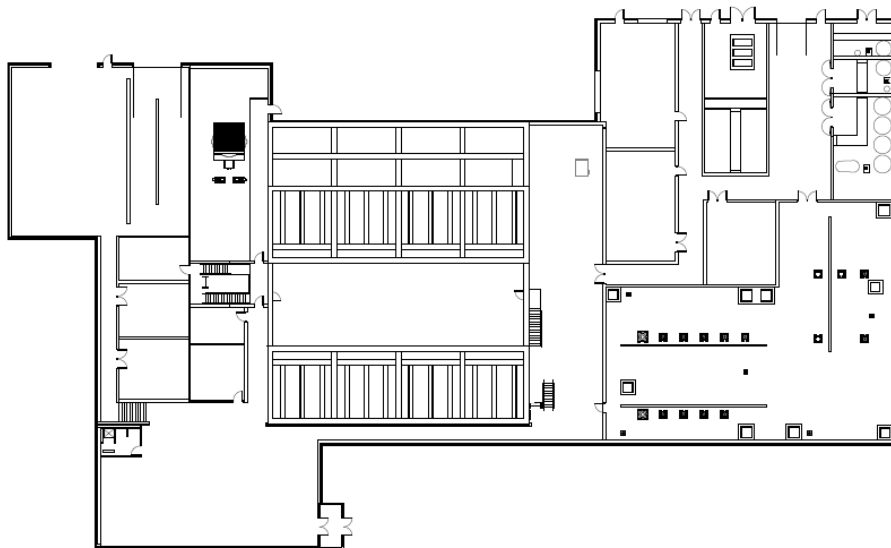
Requesting State Capital Investment Bonds for Water Treatment Plant

June 3, 2025

Water Treatment Plant Design



- Gravity Filtration water treatment plant to remove manganese
- No Reverse Osmosis but could be added in future for water softening and also protection against future contaminants
- No Garage except JetVac stall, and small garage for 2 additional staff vehicles and small work area. Garage could be added in the future
- No staff space except small area for 2–3 staff members and critical areas for plant operation (office, laboratory, SCADA, restroom, breakroom). Office could be added in the future
- Building reduced by approximately 28,815 sq. ft. from previous design
- Utilities staff and equipment stays in current locations except JetVac goes to WTP

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**NORTHFIELD, MINNESOTA
WATER TREATMENT FACILITY
OPTION NO. 2
BUILDING LAYOUT**

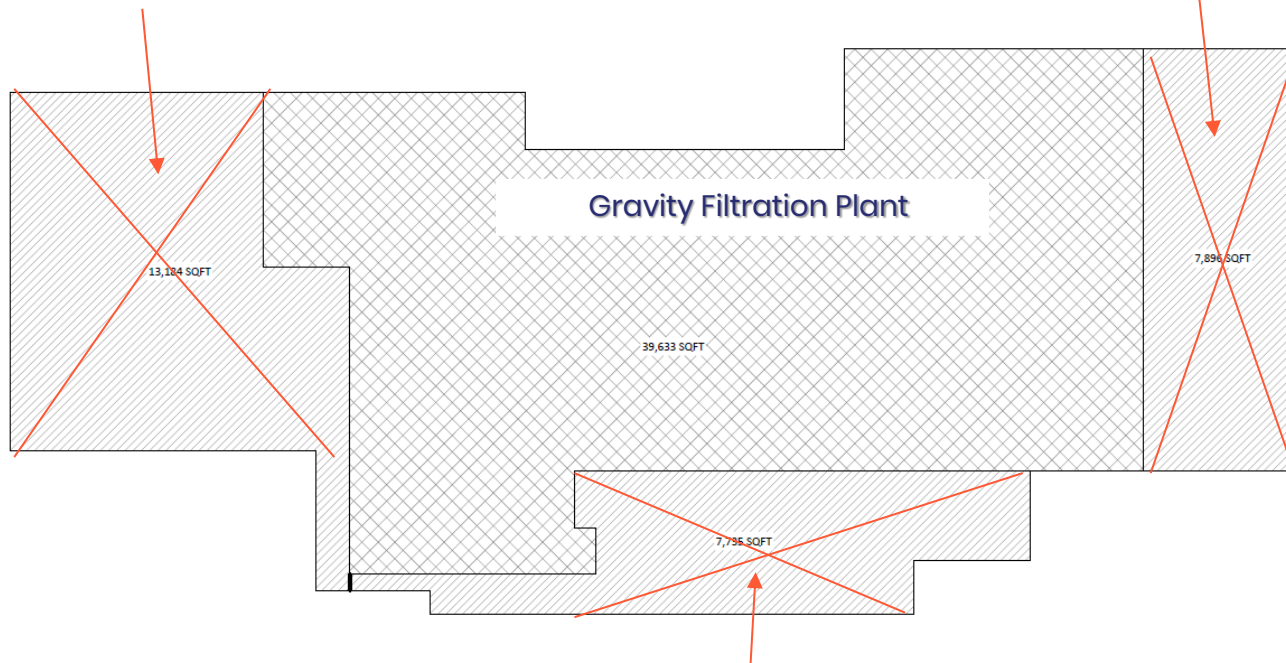
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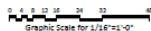


Removed Garage, could be added in future

Removed RO, could be added in future



Removed Office, could be added in future



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NORTHFIELD, MINNESOTA
WATER TREATMENT FACILITY
OPTION NO. 2
BUILDING SQFT

SHEET
C2

Water Treatment Plant Cost



- December 2024 bid resulted in project cost per square foot is around \$490 for office area and \$385 for garage space
- Value engineered the facility to lower cost as much as possible
- Project costs are increasing 0.4% – 1.0% per month
- \$64 million estimate based on Dec. 2024 figures and project construction in 2028
- Redesign of projects is estimated to take 9–12 months and roughly cost \$900,000

State Capital Investment Bonding Request – WTP



- **\$64 million project (2028 project estimate)**
 - \$32 million – State bonding request
 - \$32 million – City share
- **Gravity Filtration Water Treatment Plant**
 - Lowers level of manganese in the drinking water
 - Ability to add future garage/office and reverse osmosis

Why \$33 million project is not an option



- \$33 million project is the same project that bid out in Dec. 2024 at ~\$62 million
- \$33 million was a conceptual design from summer 2021, 3.5 years prior to bid of project
- Reverse osmosis cost was substantially underestimated and required a larger footprint
- Construction costs have been increasing 10% per year
- Booster Station for Southeast area was added to the facility to serve future growth
- Office and garage were slightly larger

Questions for Council



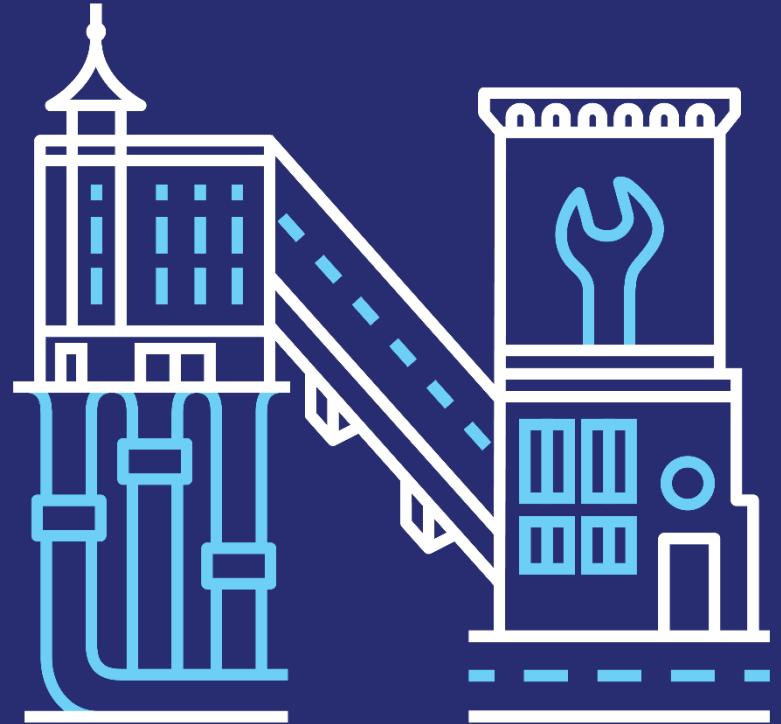
- Do you support a gravity filtration water treatment plant based on current estimate?
- Do you want to start redesign sooner to move project forward sooner?

State Capital Investment Bonding Request – WTP Options



- Pursue 50% cost share for water treatment plant (staff Resolution)
- Not to pursue state capital investment bonding request for water treatment plant

**Consider Resolution
Requesting State
Capital Investment
Bonds for Water
Treatment Plant in the
City of Northfield**



MDH Manganese Water Health Risk Limit



Infants

100 $\mu\text{g/L}$

3 of 5 Northfield wells above 100 $\mu\text{g/L}$



Everyone Else

300 $\mu\text{g/L}$

Manganese in Northfield's Tap Water



- City conducted testing in 5 locations throughout 2020 at taps where people drank water
 - No documentation on what type of treatment, if any, took place prior to the tap
- 4 of 5 sites had tests over 100 ug/L.