

Current Cost Drivers for Drinking Water & Wastewater Infrastructure Projects

House Capital Investment Committee
March 10, 2026

WHO IS BOLLIG ENGINEERING

Minnesota is Unique

- 856 cities in MN
- 83% of MN Cities have populations under 5,000
 - Nearly 71% of these are under 1,000 people

1.6 Million

Minnesotans live in
Small Communities



WHO IS BOLLIG ENGINEERING

Who We Are

- **Founded in 2007 by Brian Bollig in West Central Minnesota**
- **Statewide Service Provider:**
 - **Engineering**
 - **Architectural**
 - **Construction Management**
 - **Funding Assistance**
- **We value rural communities and the people who live and work in them.**
- **Our team makes expert-level strategic planning accessible to Greater Minnesota.**



WHO IS BOLLIG ENGINEERING

Why Bollig Engineering is Qualified

Our purpose has always been focused on meeting the unique needs of smaller MN Cities that have limited resources.

EXPERIENCE

Over 30 years of practice

UNDERSTANDING

We are a smaller firm, growing into stronger alignment with the needs of smaller MN Cities

RELATIONSHIPS

We value cultivating relationships with our clients, project stakeholders, funding agencies, and key decision-makers

APPROACH

Our experienced and dynamic process is designed to navigate the strenuous path from planning to project completion

WE ARE DIFFERENT

We build funding in the best interest of our smaller MN Cities even if it means its more effort for us



STAFFING SHORTFALLS

Minnesota City Resources and Staff

STAFFING DISPARITIES

- Cities with populations less than 5000 have no engineering or planning positions
- Larger Cities are often fully staffed with engineers and planners to assist with Strategic Planning



ENGINEERING

Municipal Engineering

Engineering decisions protect public health and safety and support capital investments.

PUBLIC HEALTH & SAFETY

Prevention of waterborne diseases through well-designed treatment systems and properly designed utility infrastructure and transportation systems

CAPITAL INVESTMENTS

Protection of investments through infrastructure design that is appropriate, durable, and cost effective

FINANCIAL SECURITY

Reduction of long-term expenses by preventing system failures, costly emergency repairs, and excessive operation and maintenance costs

PUBLIC TRUST

Preservation of public trust by maintaining reliable, resilient infrastructure

WHO IS BOLLIG ENGINEERING

We are Neighbors Serving Neighbors!

The Bollig Team is dedicated to helping small communities overcome real challenges:

- Limited Resources
- Vital Strategic Planning
- Technical Design
- Relationships & Outreach
- Funding & Affordability
- Regulatory Compliance
- Construction Oversight



We take great pride in finding the right solutions for needs in small communities.



Designed for
Small Cities.[®]



FUNDING SUCCESS IN SMALL COMMUNITIES

We Help Secure Successful Funding

Our strategic planning process and relationships with Funding Partners is making a difference for Small MN Cities!

- Total Funding: **\$290M**
- Federal: **\$176M** or **61%** of total funding
- State: **\$96M** or **33%** of total funding
- Local (cash): **\$18M** or **6%** of total funding
- 25 Funding Sources

3-7 Average # Funding Sources per Project



FEMA

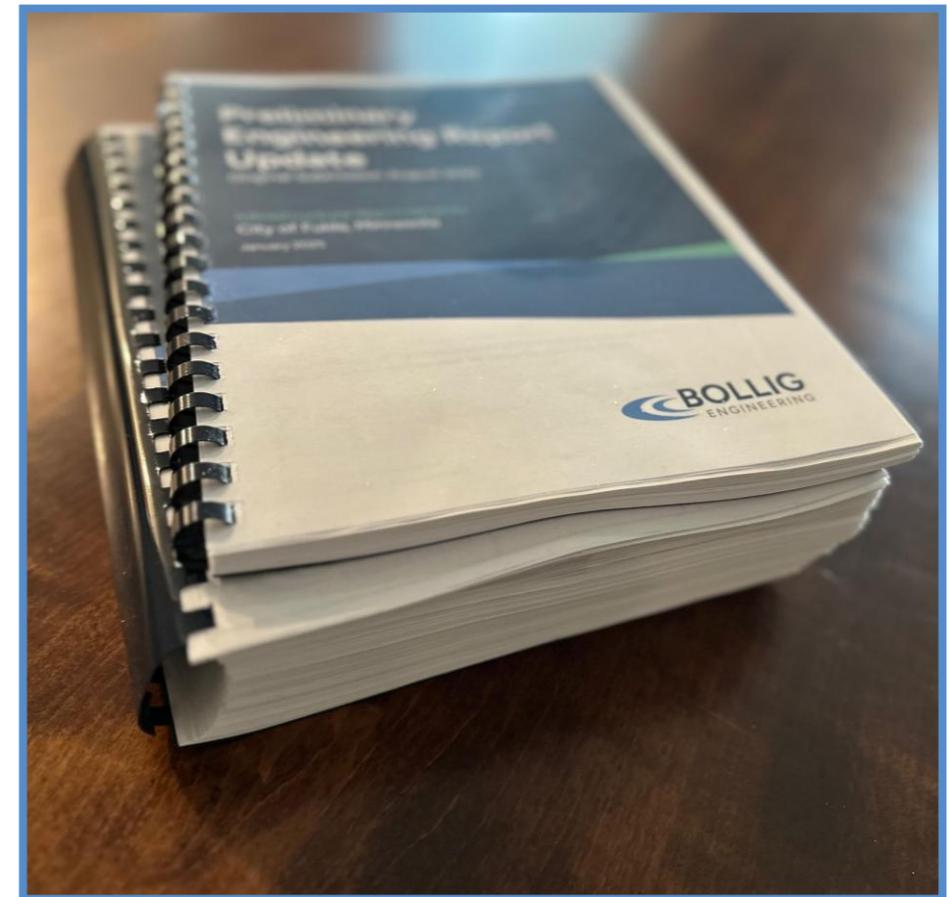


COST DRIVER

USDA Federal Funding

Requires Intensive Preliminary Engineering and Environmental Reports

- Must Consider Entire City including Infrastructure not considered for improvement
- Exhaustive Engineering Re-Reviews are costing time and money
- Concurrence of Reports are being delayed due to lack of available funding

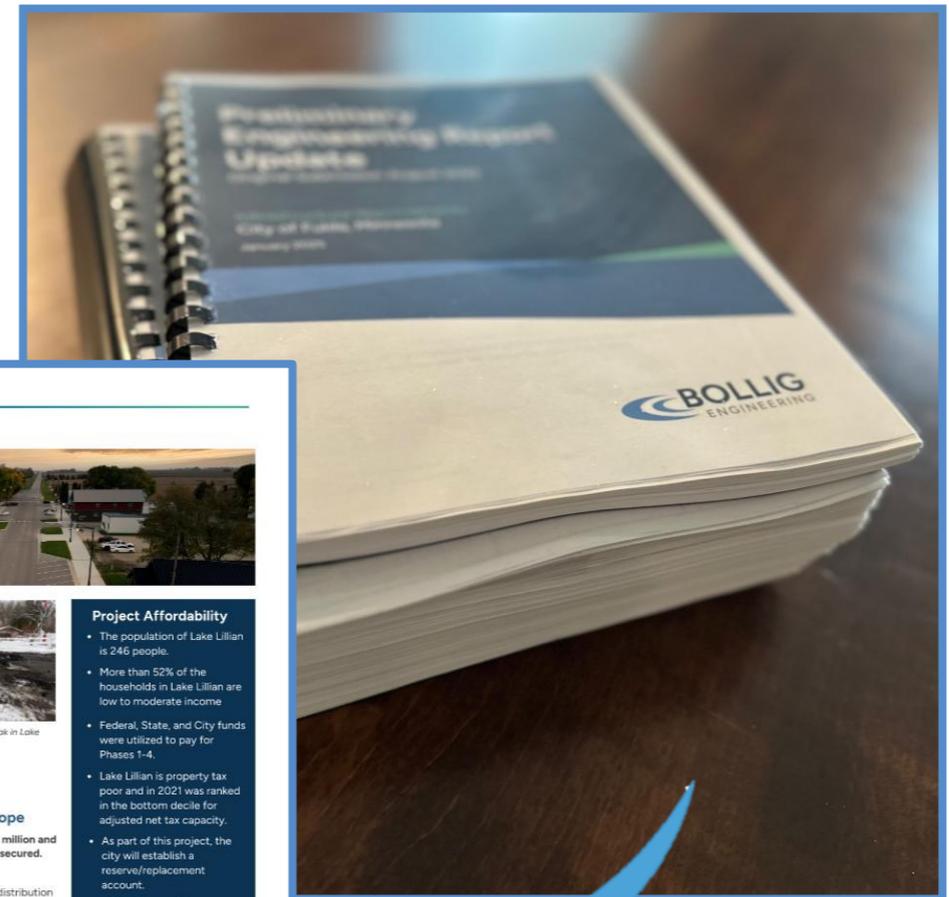


SIMPLIFYING THE STORY

250+ Page Report Condensed to 1-Page Briefing Sheet

We understand and prioritize the various communication needs necessary to bring successful project outcomes to Small Cities.

- Decision makers require key information and efficiency:
 - Need for Project
 - Project Scope
 - LMI or MHI Data
 - PPL Scores
 - Utility Costs
 - Project Costs
- Challenge: adequately expressing how Minnesotans living in Small Cities are impacted by decisions to fund or not fund a project



City of Lake Lillian
Drinking Water | Wastewater | Storm & Sewer Improvements



The City of Lake Lillian's aging and failing infrastructure has led to critical water issues, including health and safety risks such as the recent 2021 study showing the city's **arsenic levels were more than 2.5 times** the allowed compliance level. As a result, an approved phased utility project approach has been implemented with Phases 1 through 4, totaling more than **\$17.3 million in city infrastructure investment**. The remaining final phase to address Minnesota Department of Health non-compliance and meet industry standards, totals **\$9.5 million**.



Project Affordability

- The population of Lake Lillian is 246 people.
- More than 52% of the households in Lake Lillian are low to moderate income
- Federal, State, and City funds were utilized to pay for Phases 1-4.
- Lake Lillian is property tax poor and in 2021 was ranked in the bottom decile for adjusted net tax capacity.
- As part of this project, the city will establish a reserve/replacement account.
- Lake Lillian residents average \$138/month in utility costs and would exceed \$2,000/year without bonding support.

Phases 1 - 4
Phases 1 - 4 utility work totaled \$17.3 million. It has been funded and included:

- Replacement of water distribution lines
- Replacement of sanitary sewer collection systems
- Storm water conveyance improvements
- Street restoration work
- Water Treatment

Funds Needed

Phase 5 Project Scope
Utility work will total \$9.5 million and will begin once funding is secured. This project includes:

- Replacement of water distribution lines - PPL Rank 637
- Sanitary sewer collection system improvements - PPL Rank 52
- Wastewater Pond Improvements
- Sanitary Sewer Foreman
- Water Storage Tank Improvements
- Storm water conveyance improvements
- Street restoration

Why Your Support Matters Now
Lake Lillian knows this final project will improve the quality of life, health, safety, and well-being for the residents and visitors to their community. The City of Lake Lillian is respectfully requesting **\$3.5 million** in Minnesota Legislative Bonding to leverage Federal and City funding proposed to complete the final phase of this project.



THANK YOU!

What is Working – What is Not

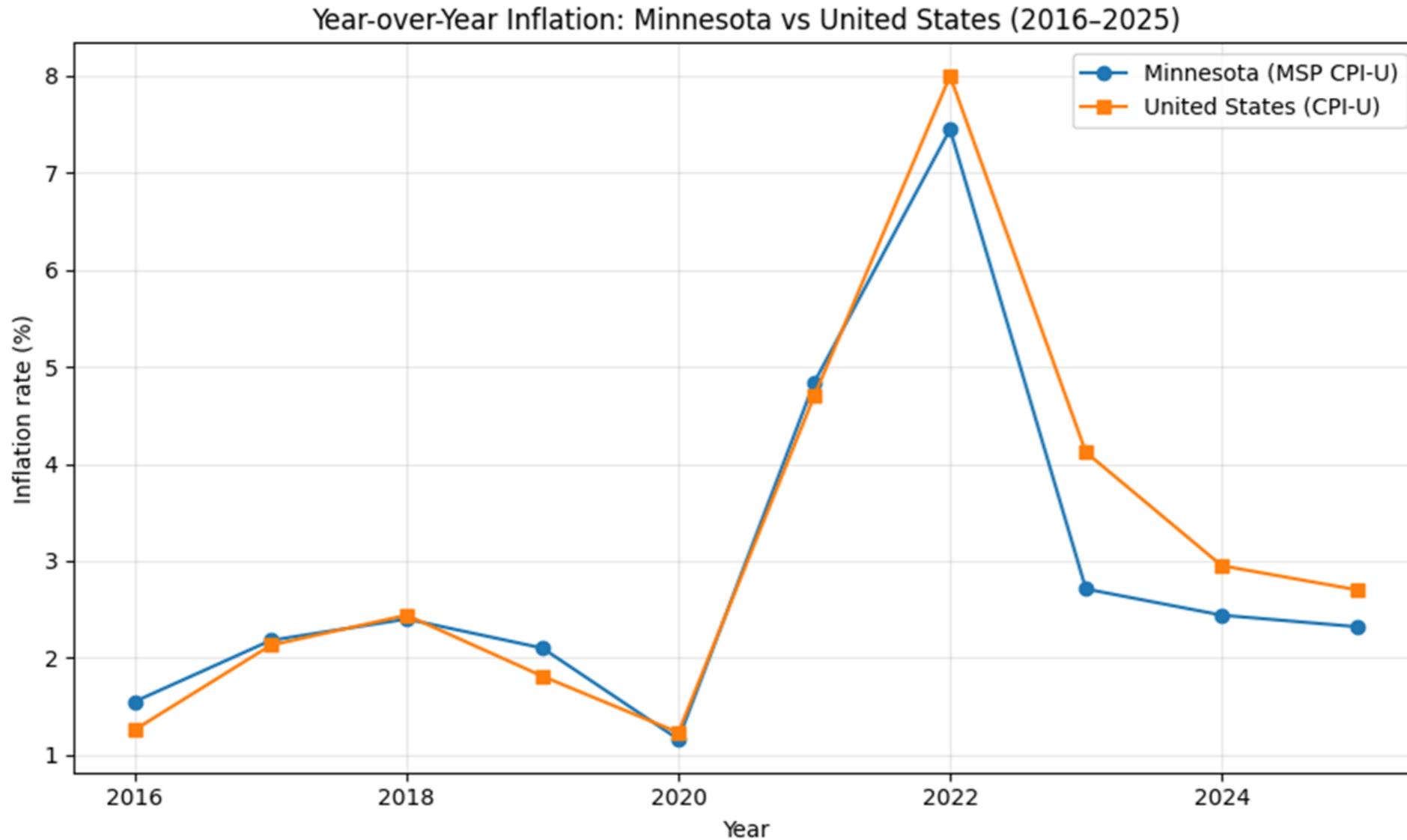
State vs Federal Funding for Water Infrastructure Utilities

FUNDING	PROS	CONS
USDA - RD	<ul style="list-style-type: none"> ▪ Low Interest ▪ Longer Loans (40 years) ▪ Federal Grants 	<ul style="list-style-type: none"> ▪ Historical \$24k to \$30k but with extra administrative requirements and re-reviews costs are increasing costs 2x to 3x+ ▪ Many small cities cannot afford ▪ Exhaustive review of all infrastructure ▪ BABAA & other administrative requirements ▪ Historically 1.5% but increasing to 2% of MHI
PFA	<ul style="list-style-type: none"> ▪ Lower interest loans ▪ Easier to access funding ▪ Lower affordability (1.2% - DW; 1.4% - WW) ▪ State Grants 	<ul style="list-style-type: none"> ▪ Historically, not available to cities < 1,000 pop. ▪ No reimbursement for interest & finance costs
RD & PFA	<ul style="list-style-type: none"> ▪ With Federal Grant, State Matches 2:1 ▪ Longer loans allow more monies ▪ Reimburses City for interest & finance costs 	<ul style="list-style-type: none"> ▪ Same RD Cons as above



Infrastructure can fail quietly, without visible signs.

Inflation History

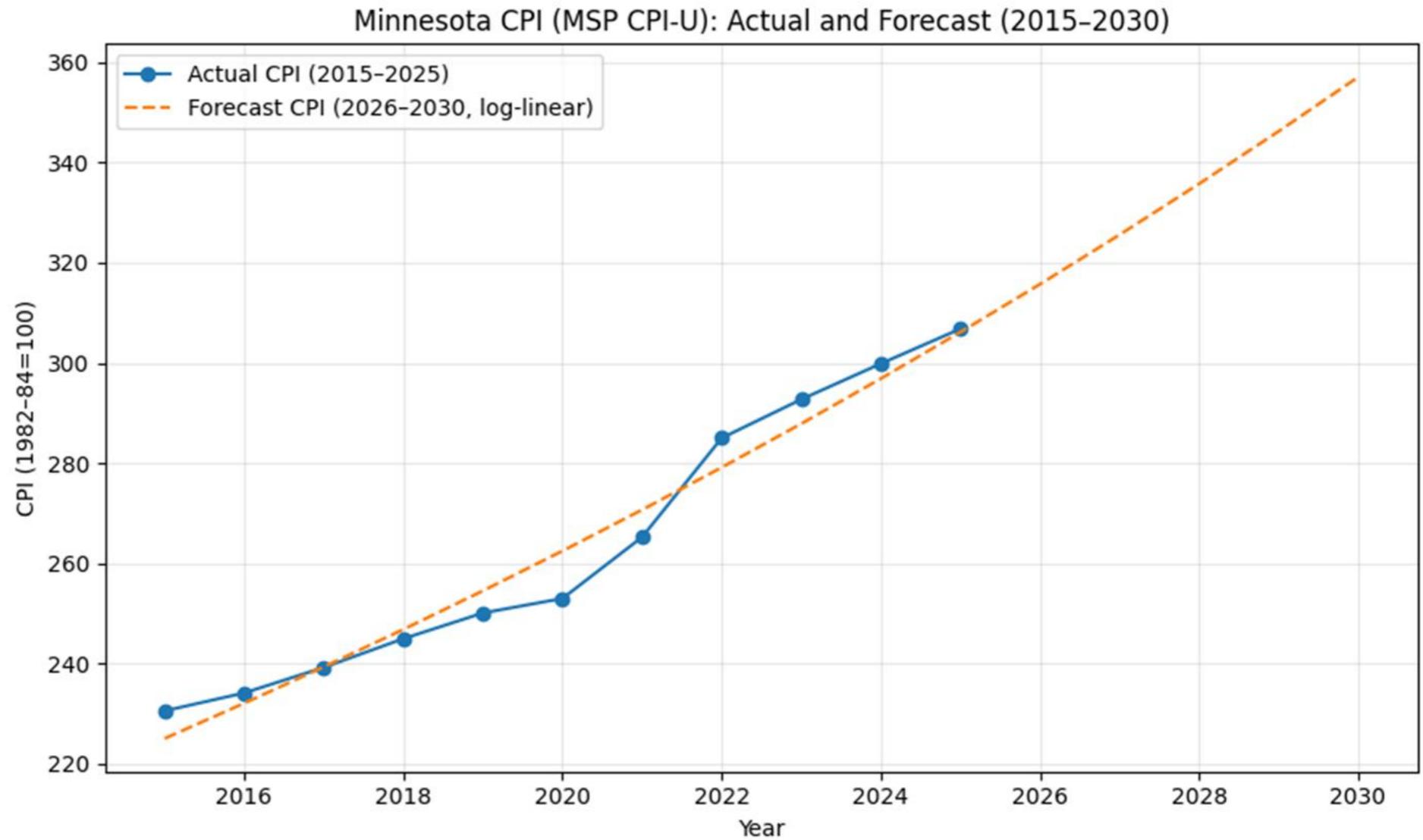


Data from Bureau of Labor Statistics – CPI for Urban Consumers

MARKET PRICE

CPI History

33%↑
2015-2025



Data from Bureau of Labor Statistics

CONSTRUCTION COSTS

Market Pricing

ALL CONSTRUCTION PROJECTS

>\$175,000 must be publicly bid

MARKET DECIDES PRICE

- Not the Engineer
- Not the Contractor

MARKET FACTORS

- Costs: Material, Labor, Supplies
- Cold weather climate – deeper burial depths, condensed construction timelines
- Risk: Market Uncertainty
- Reward: Growth/Profit



CONSTRUCTION COSTS

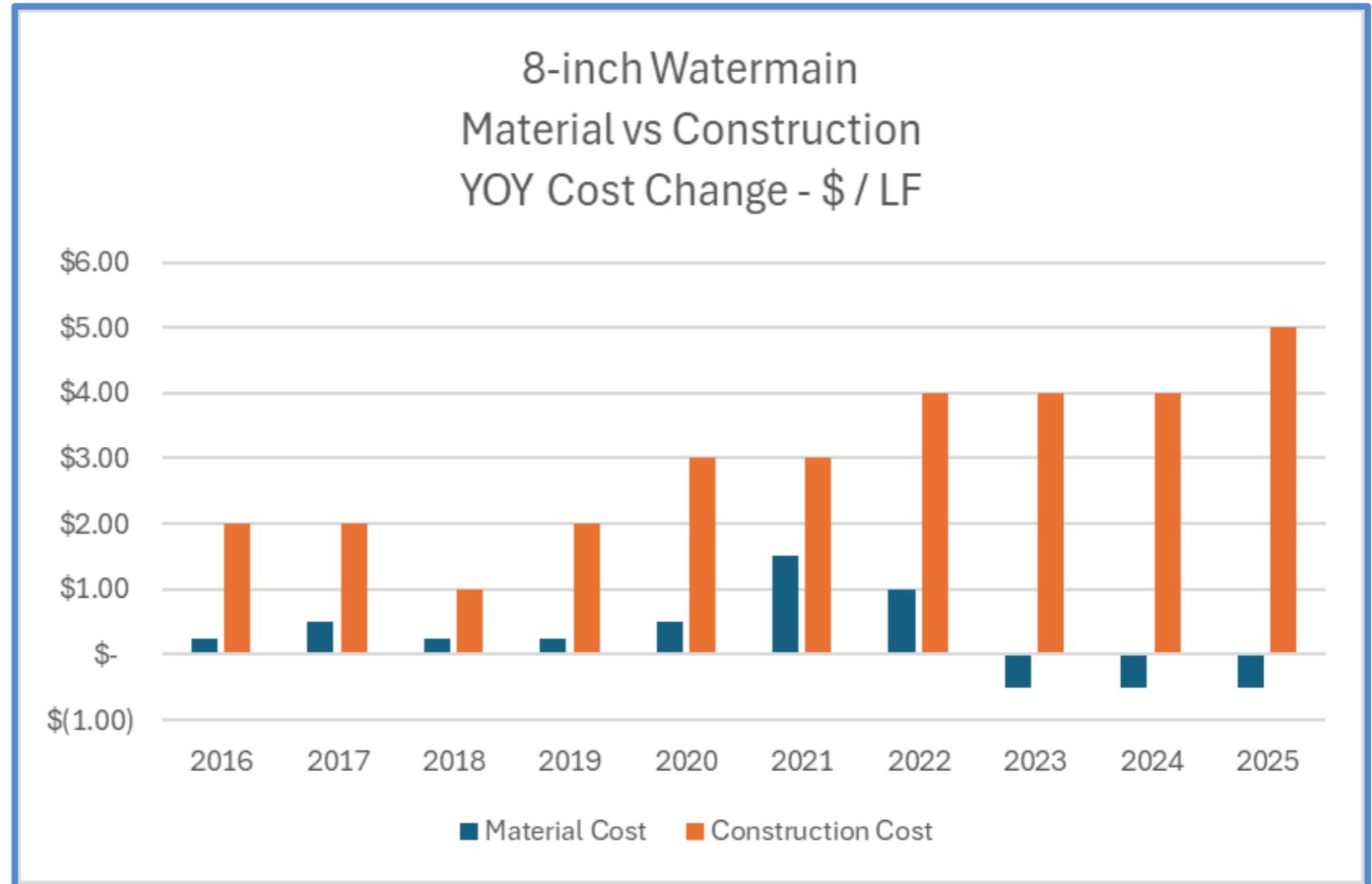
Watermain Increased Costs

MATERIALS

36.7% ↑
2015-2025

CONSTRUCTION

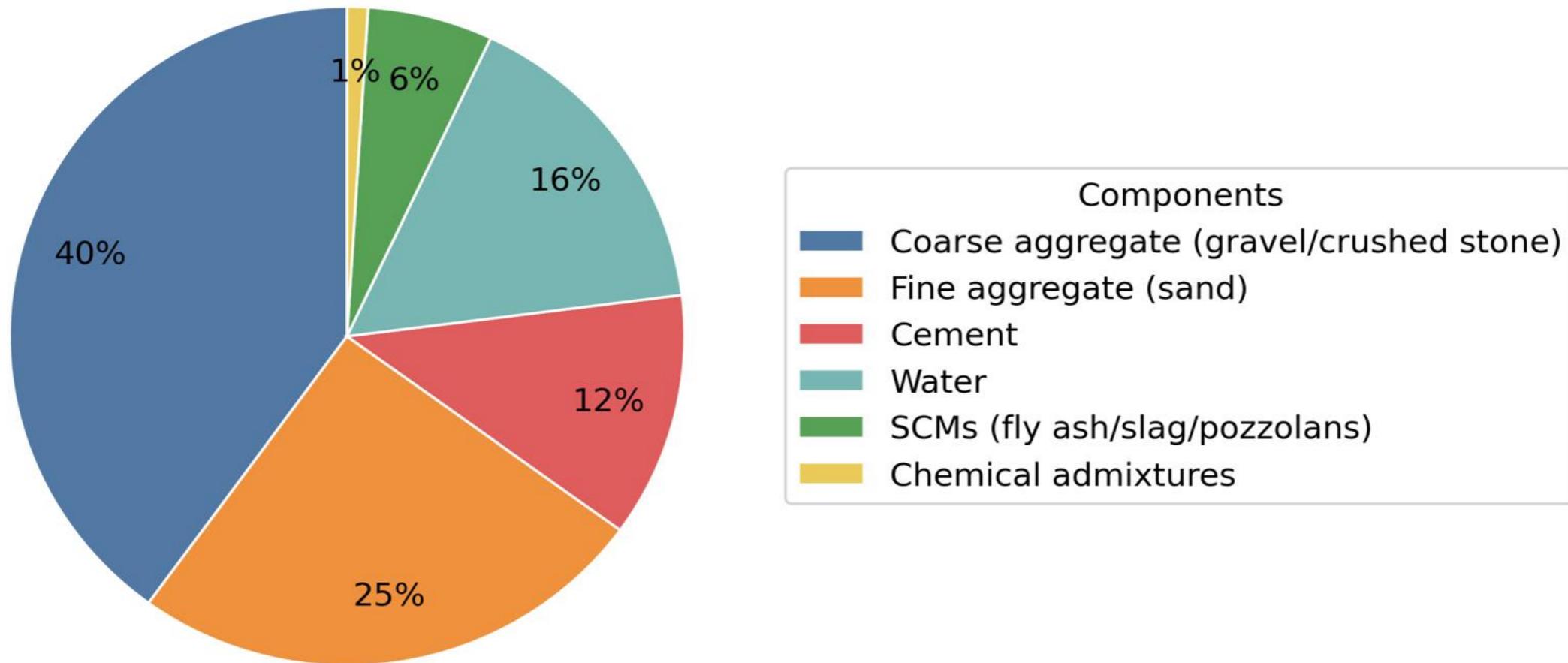
42.9% ↑
2015-2025



CONSTRUCTION COSTS

Concrete Increased Costs

Ingredients in Municipal Concrete (Representative Mix)



Rock, Sand, Water – 81%

CONSTRUCTION COSTS

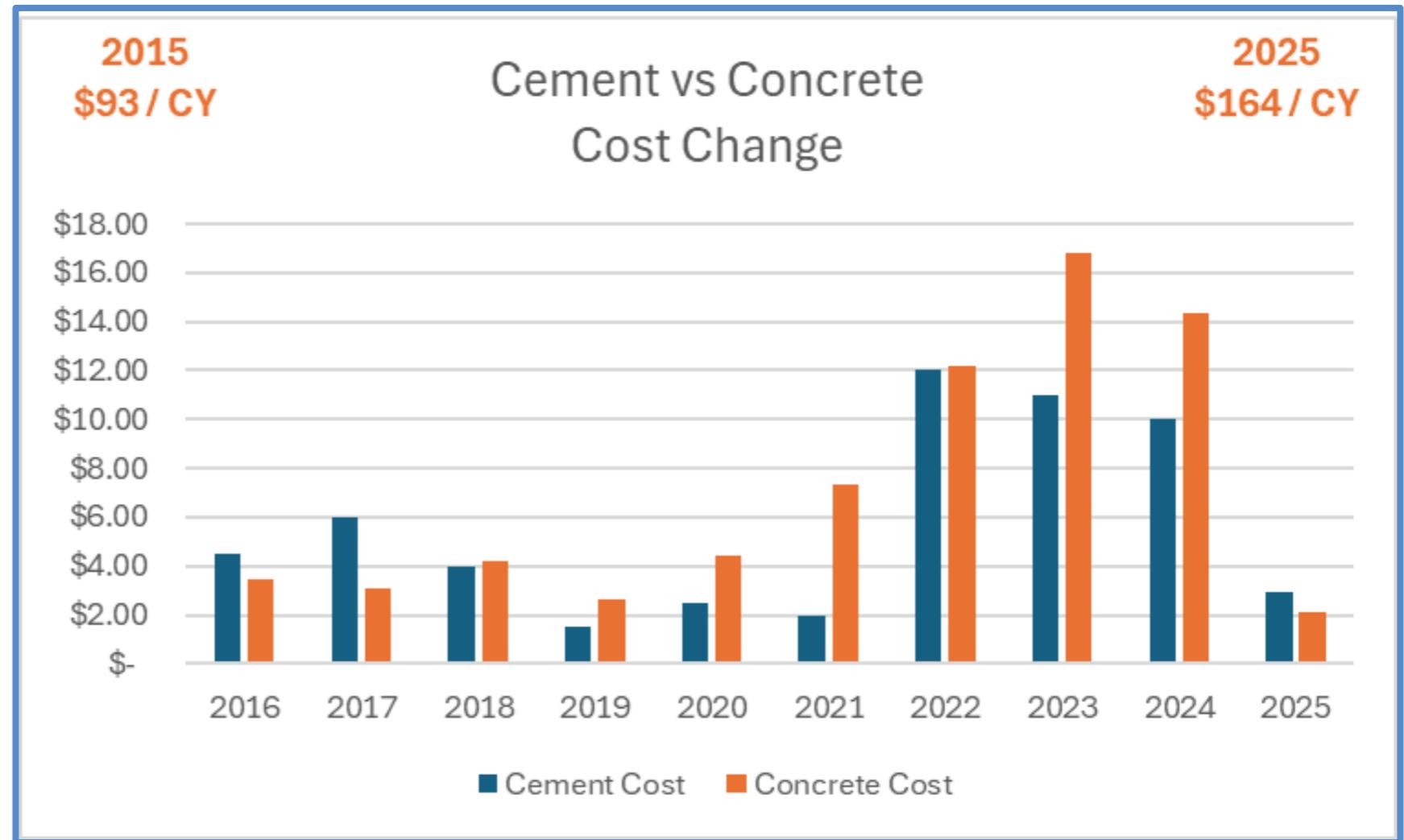
Concrete Increased Costs

PRE-2020

Concrete costs generally followed the cost of the cement itself

PRICING IMBALANCE

Created by factors like the rising cost of diesel fuel, logistics, labor, and aggregate



Cement Data from U.S. Geological Survey

CONSTRUCTION COSTS

Water Treatment Plant Costs

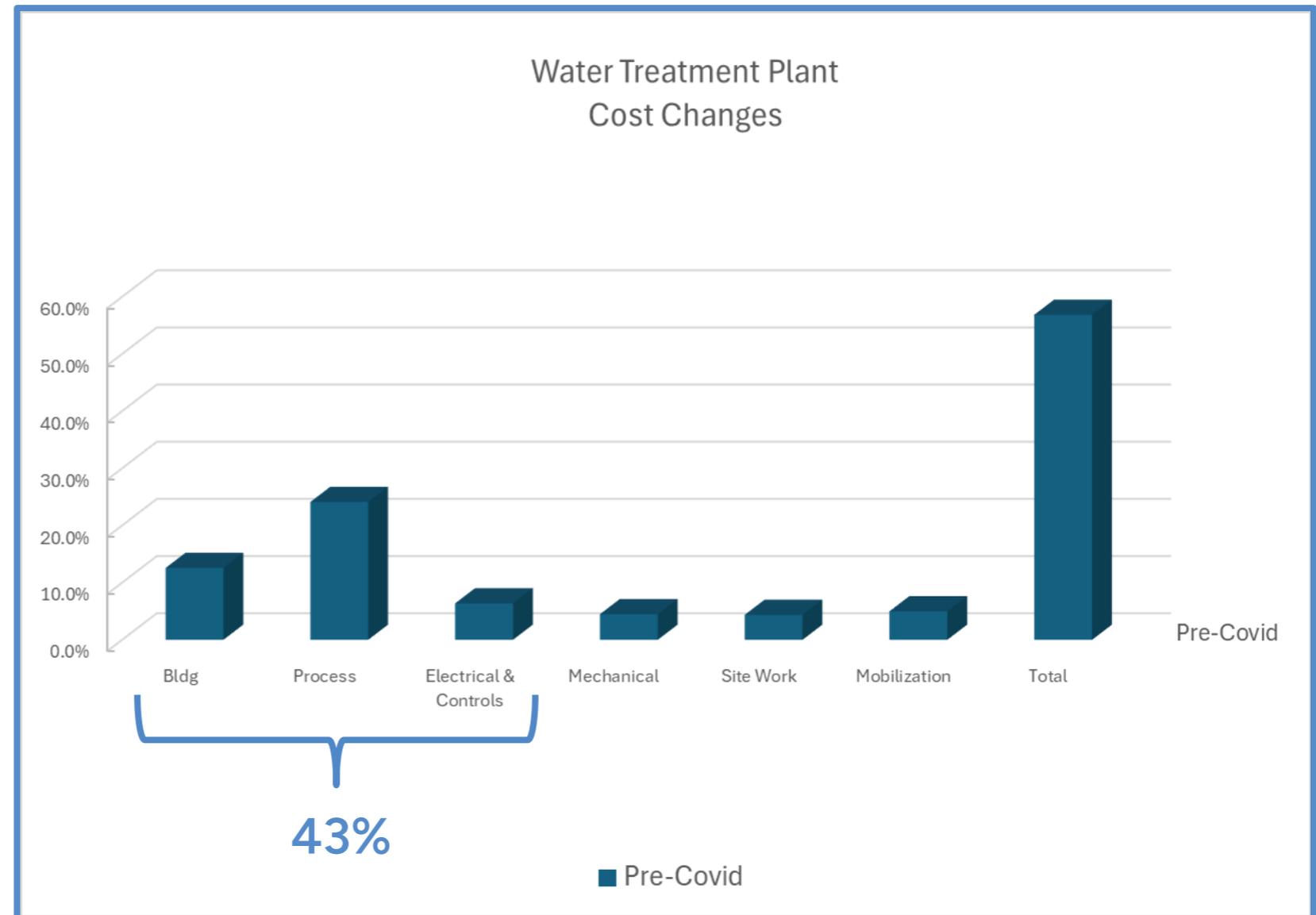


CONSTRUCTION COSTS

Water Treatment Plant Increased Costs

PRE-COVID (43%)

- Building
- Process Equipment
- Electrical & Controls
- Mechanical
- Site Work
- Mobilization



CONSTRUCTION COSTS

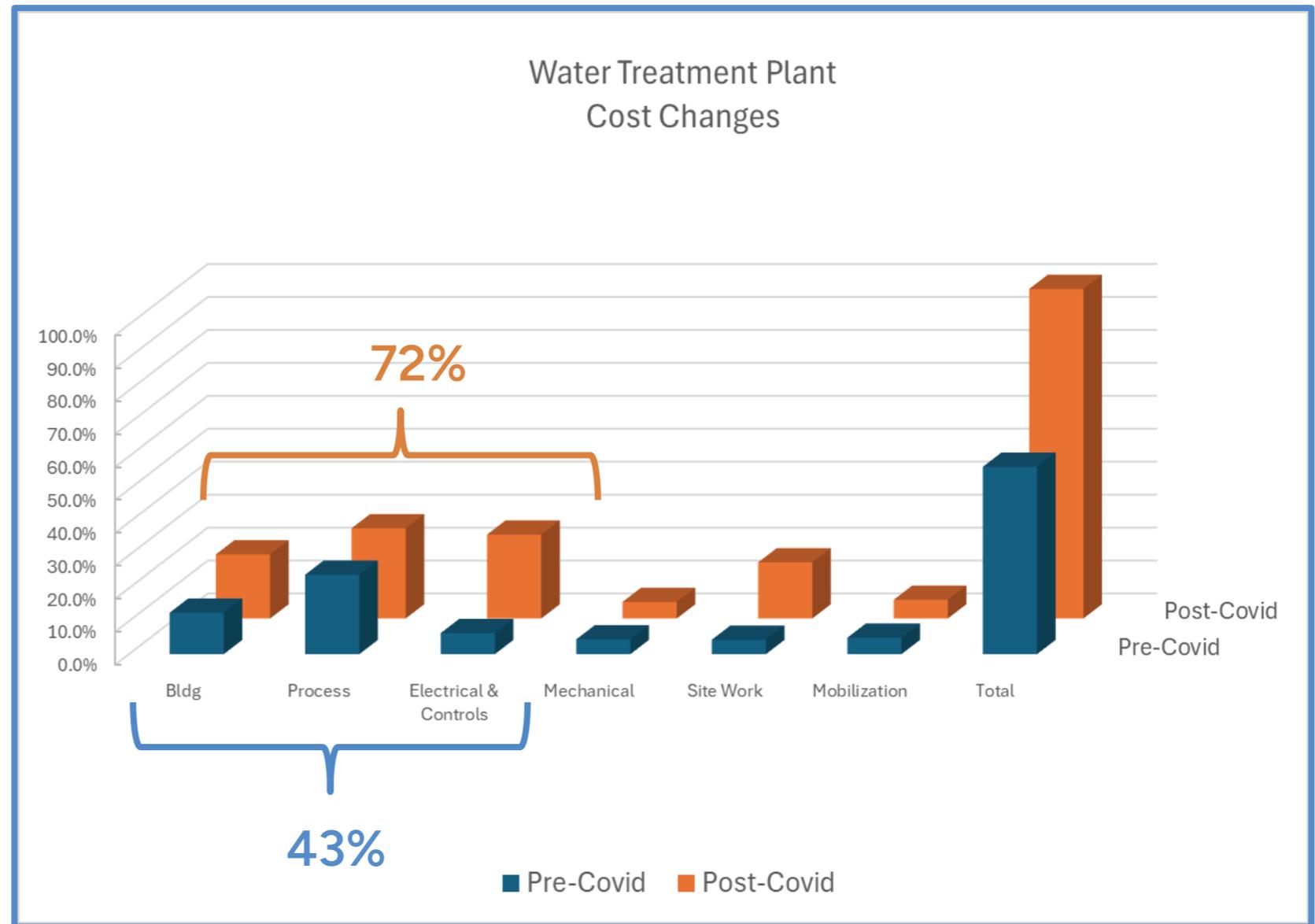
Water Treatment Plant Increased Costs

PRE-COVID (43%)

- Building
- Process Equipment
- Electrical & Controls

POST-COVID (72%)

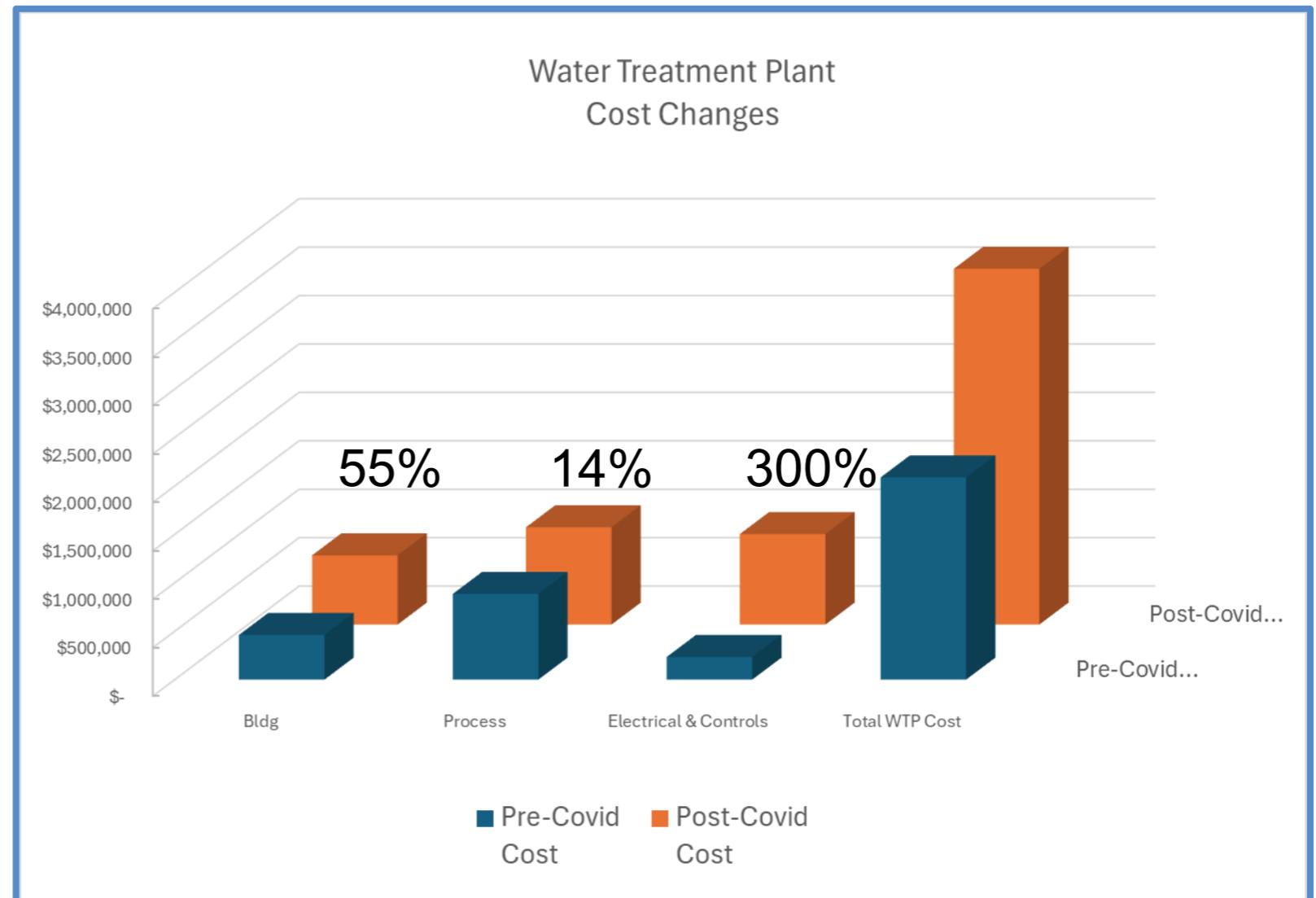
- Building
- Process Equipment
- Electrical & Controls



CONSTRUCTION COSTS

Water Treatment Plant Increased Costs

- CPI (2015-2025) = 33%
- Water treatment plant pricing has seen a significant increase since 2020
- With BABBA we see increasing costs for process, electrical and control equipment
- Total Project Costs have risen 76%

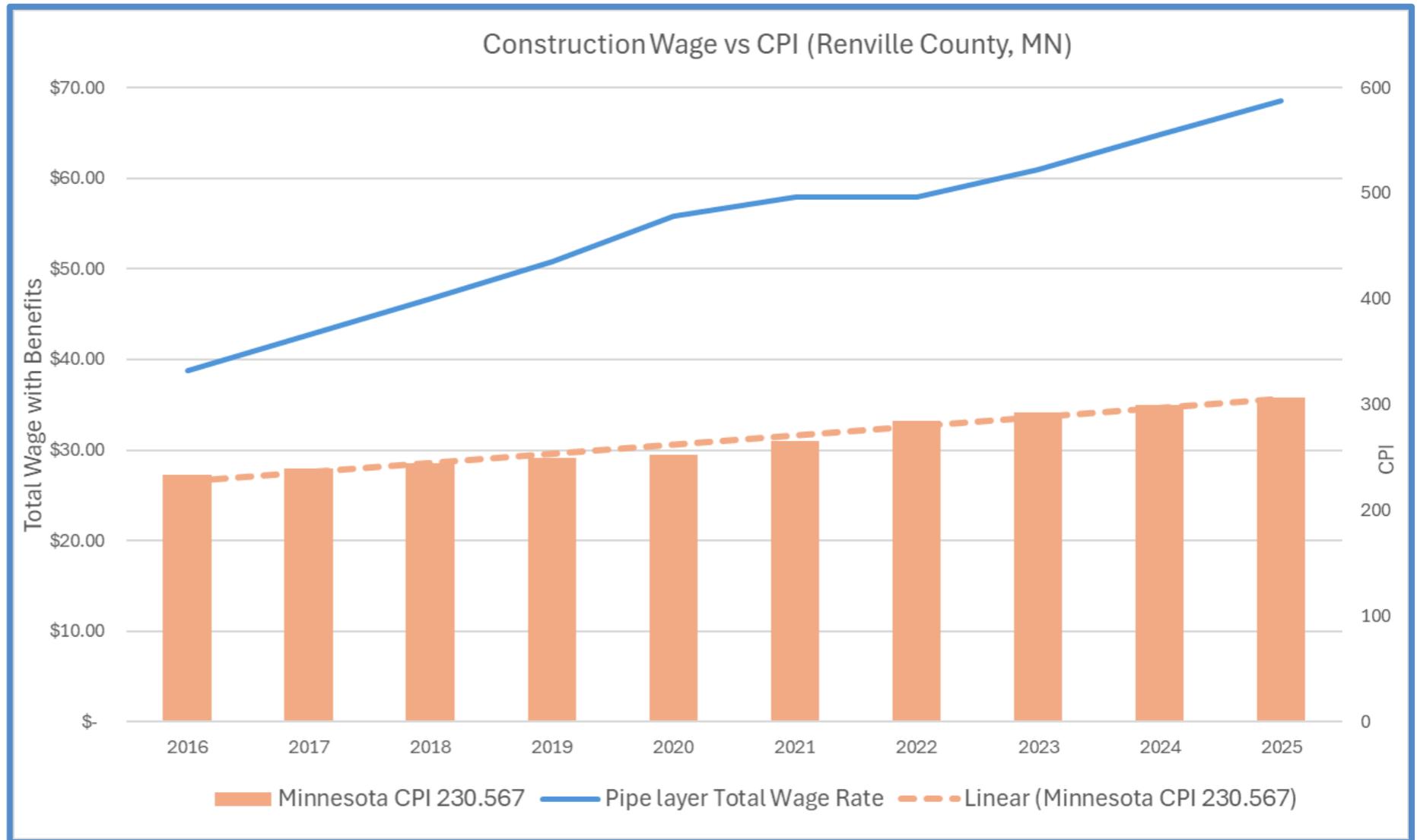


CONSTRUCTION COSTS

Labor Increased Costs

Labor costs are not aligned with Consumer Price Index (CPI)

Annual Increases in the Consumer Price Index (CPI) are less than increases in labor costs



What is Working & What Can Be Improved

What Is Working

- Legislative Visits
- PFA Program
- Consistency of Public Funding
- Leveraging State & Federal Funding

What Can Be Improved

- Fluctuations in funding generate risk and adversely affect costs
- Costs in Greater Minnesota are higher
- Low tax base cities struggle to keep infrastructure projects affordable
- Interest and financing costs are not reimbursable



QUESTIONS & ANSWERS