February 17, 2022

Bond Refinancing Opportunity

Resolution 1452

Refinancing Outstanding Bonds Projected to Save KUB Customers ~ $8.2M

- Proposed refinancing of $73.3M in bonds sold in 2015
  - Electric - $29.8M
  - Water - $17.1M
  - Wastewater - $26.4M

- Represents 7% of total outstanding debt

Refinancing Summary

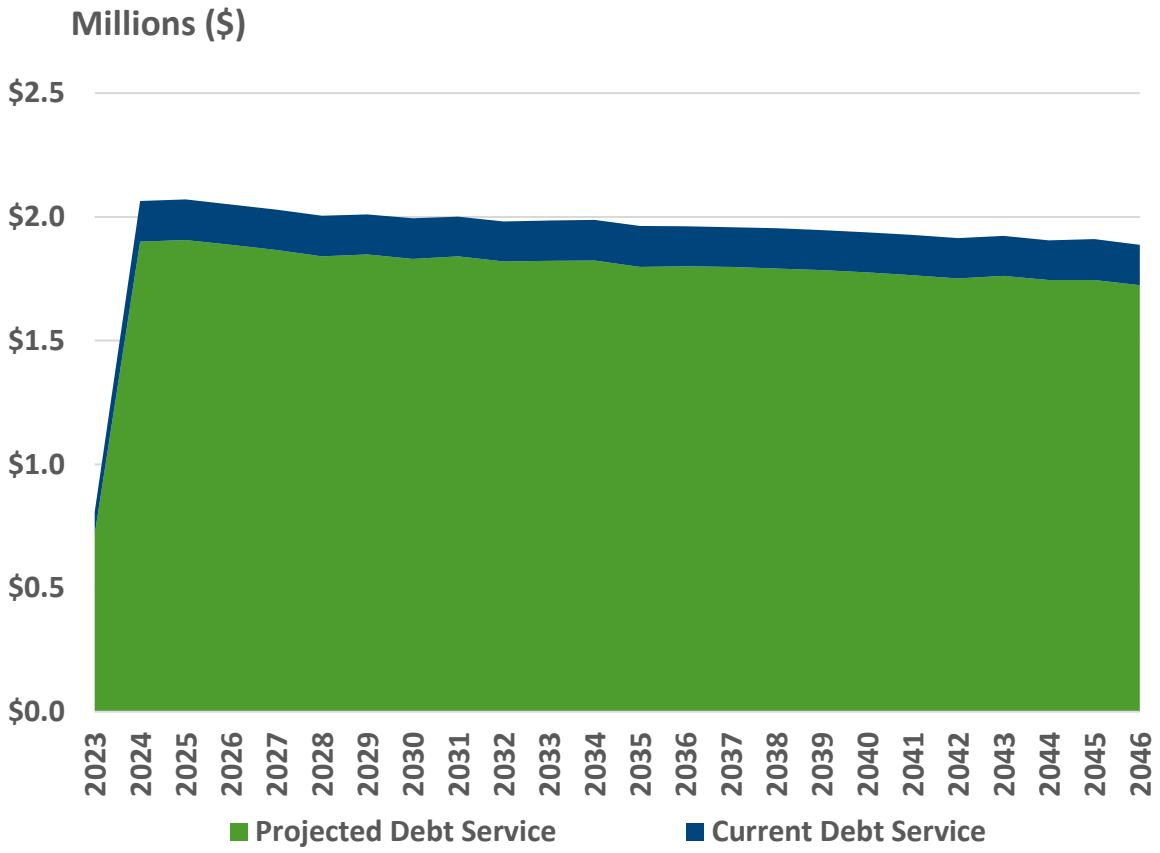
System	Proposed Bonds	Proposed Bonds Avg. Rate*	Current Bonds Avg. Rate	Debt Service Savings	Issuance Cost
Electric	$ 27.4M	3.07%	4.14%	$ 3.8M	$ 168K
Water	$ 15.8M	3.11%	3.86%	$ 1.6M	$ 126K
Wastewater	$ 24.5M	3.32%	3.96%	$ 2.8M	$ 146K
Total	$ 67.7M			$ 8.2M	$ 440K

** Projected True Interest Cost*

$27.4M Electric Refunding Bonds

Current Debt Service	**$46,177,000**
Projected Debt Service	**$42,349,000**
Savings	**$3,828,000**

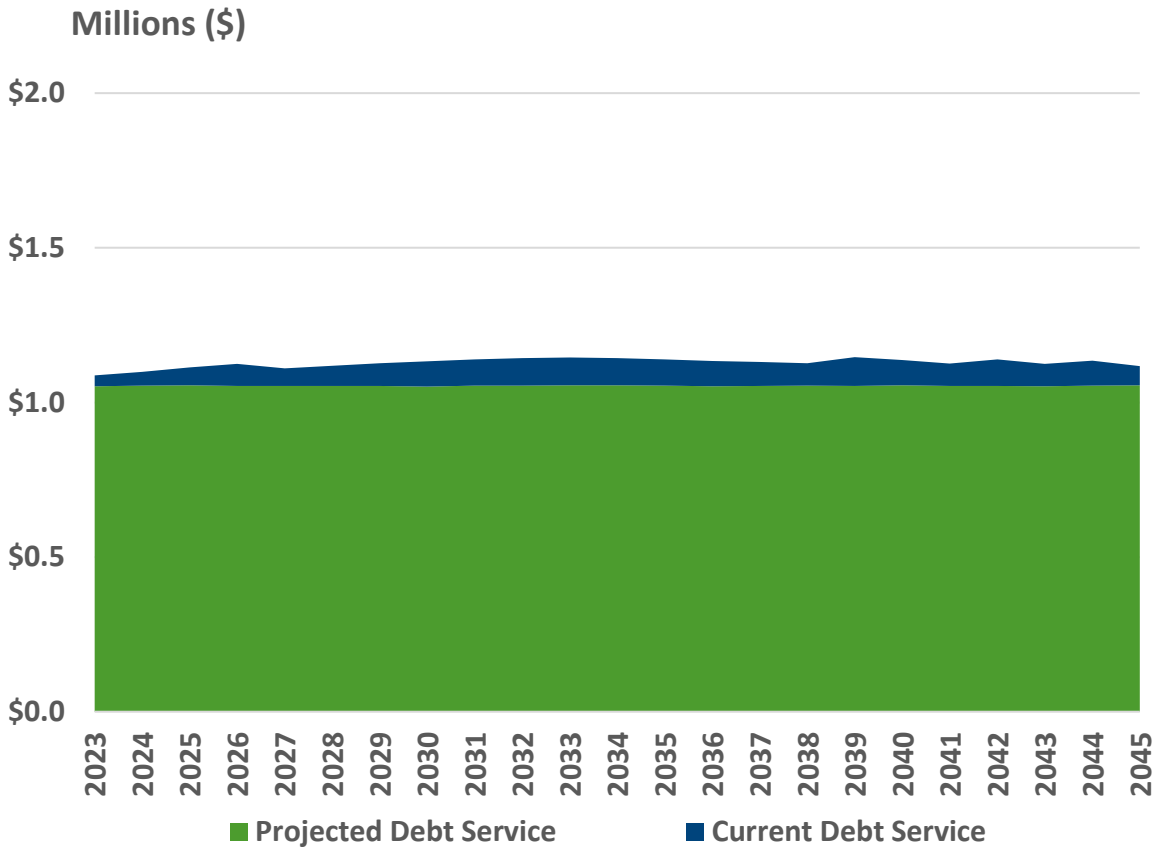
- Bonds fully mature in July 2046
- Weighted average life of bonds reduced from 13.68 years to 13.55 years



$15.8M Water Refunding Bonds

Current Debt Service	**$25,833,000**
Projected Debt Service	**$24,237,000**
Savings	**$1,596,000**

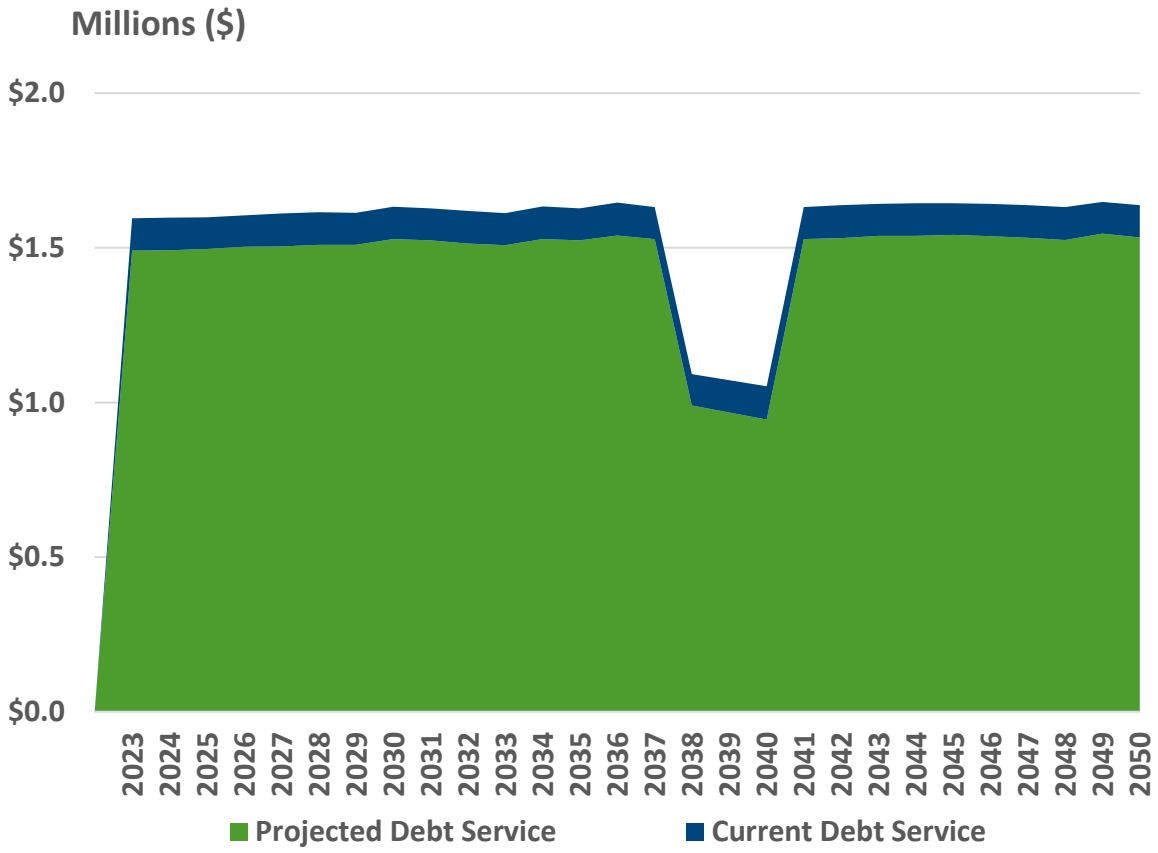
- Bonds fully mature in March 2045
- Weighted average life of bonds reduced from 13.41 years to 13.38 years



$24.5M Wastewater Refunding Bonds

Current Debt Service	**$43,786,000**
Projected Debt Service	**$40,962,000**
Savings	**$2,824,000**

- Bonds fully mature in April 2050
- Weighted average life of bonds reduced from 16.71 years to 16.57 years



Estimated Professional Fees

Cost	Professional Firm	Fee
Financial Advisor	Cumberland Securities	$116,000
Bond Counsel	Bass, Berry & Sims	$86,000
Rating Agency	Moody's	$100,000
Rating Agency	Standard & Poor's	$95,000
Paying Agent	Regions Bank	$3,000
		$400,000
Other Costs (POS, OS, Advertising, Misc.)		$40,000
		$440,000

Resolution 1452

Requests City Council authorize the issuance of up to $67.7M in revenue refunding bonds

Bonds secured by issuing system’s revenues

Bonds issued on parity with outstanding debt

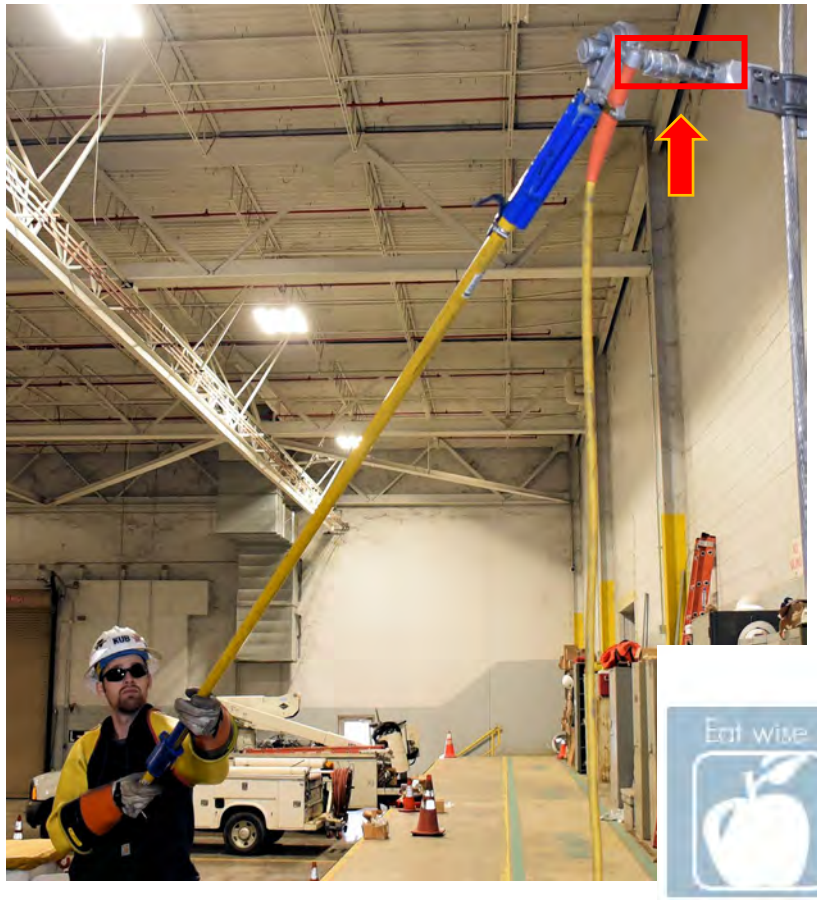
Authorizes use of refunding escrow agreement for electric bonds


KUB

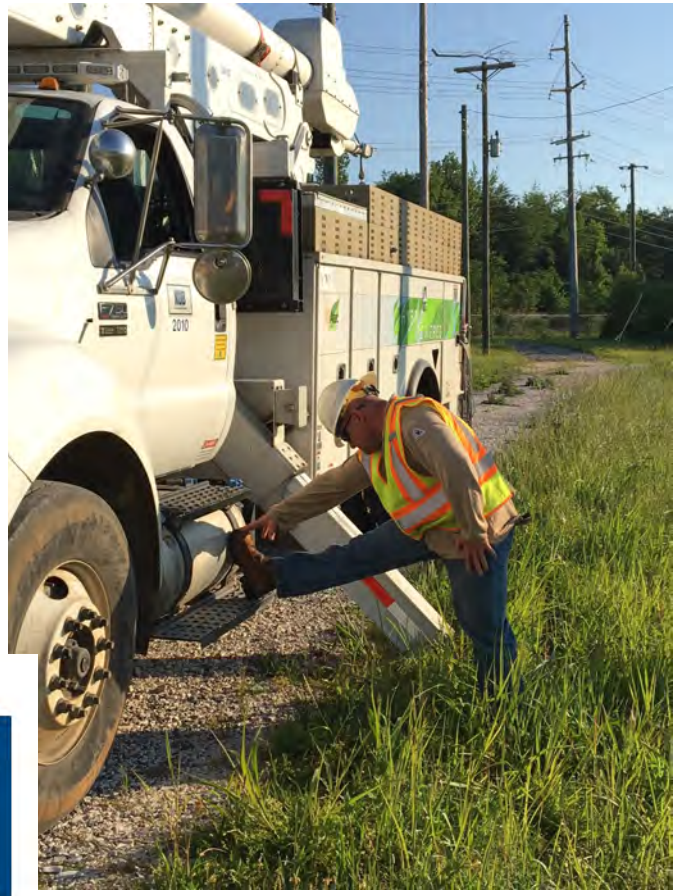
February 17, 2022

Field Ergonomics Project

What is the Work Healthy Program?



- Implemented in 2017 as part of KUB's overall wellness program
- Facilitated by Safety, Occupational Health, & Blount Memorial Industrial Athletic Trainer



Work Healthy Program: Suite of Services

- Field Visits
- Department Education
- Pre-Placement Physical Abilities Testing
- Post-Accident Review
- Ergonomic Evaluations

Understand Terminology

Identify Hazards

Utilize Prevention Techniques

Field Ergonomics Project Background

- Goal:
  - Collect muscle sensor and body mechanics data to impact tool design
- Process:
  - Take task inventory in Construction and Meters
  - Measure with different tools or techniques to see data impact
- Outcomes:
  - Analyze findings from 20+ tasks measured
  - Use data to support tool and task selection, body-positioning, and pre-task stretching

Body Positioning: Single vs. Double Chain Hoist

Take Away: Better, but still opportunity for improvement. Battery-operated next step?

	Hands/Wrists		Elbows		Shoulders		Neck	Back	Legs
	Left	Right	Left	Right	Left	Right			
Score ▼	3	7	7	8	7	6	6	1	2
Risk Rating	Mod	Higher	Higher	Higher	Higher	High	High	Lower	Low

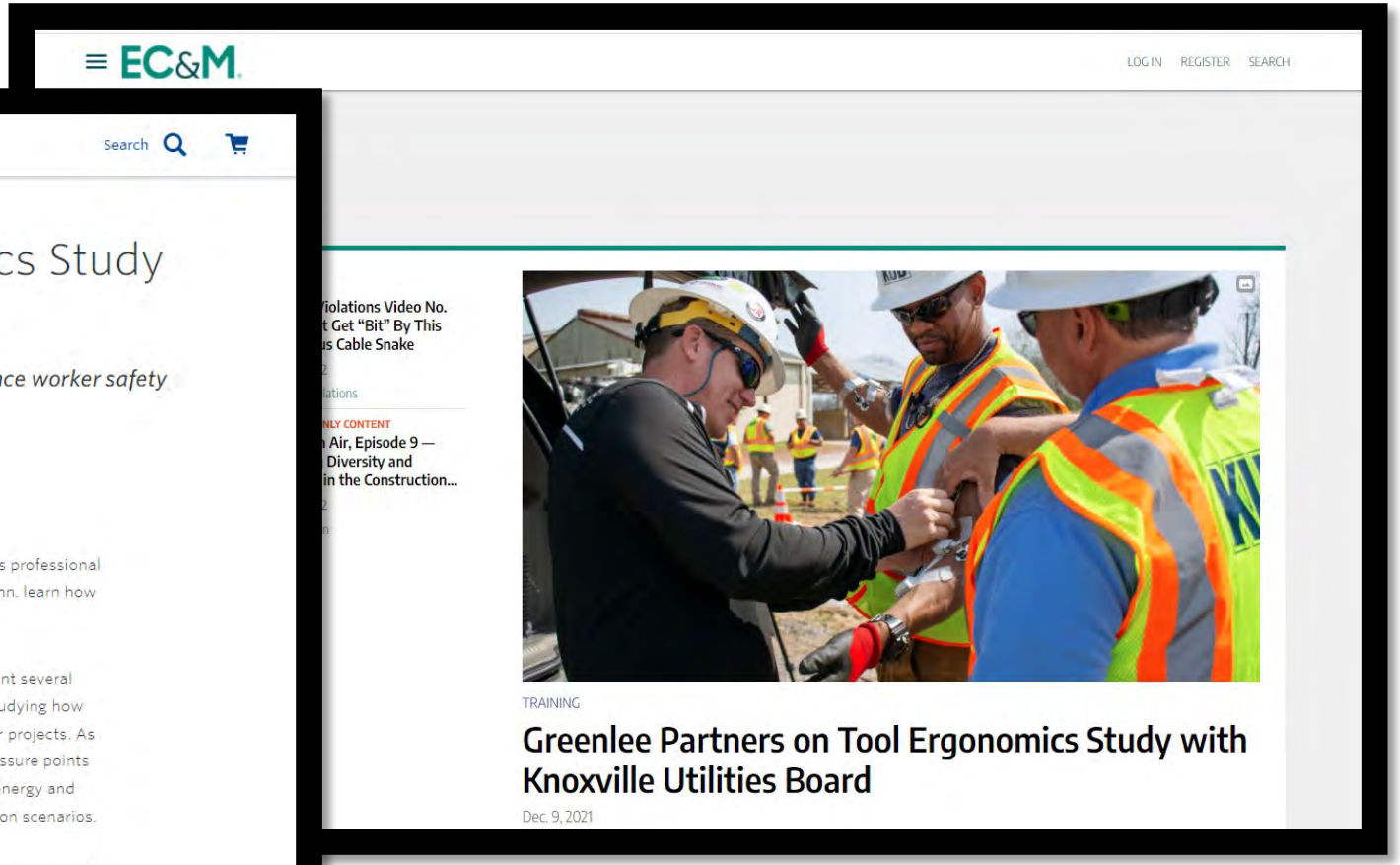
Advanced Tool Priority Score

47

	Hands/Wrists		Elbows		Shoulders		Neck	Back	Legs
	Left	Right	Left	Right	Left	Right			
Score ▼	3	7	4	9	4	6	4	0	1
Risk Rating	Mod	Higher	High	Higher	High	High	High	Lower	Lower

Advanced Tool Priority Score

38



Project Press Releases & Summary Video

Next Steps/Management Support

- Project Phase II
  - Evaluate more opportunities for program education and implementation of data findings
  - Incorporate into onboarding
  - Transition from task-based assessment to wholesale assessment (a day in the life…)

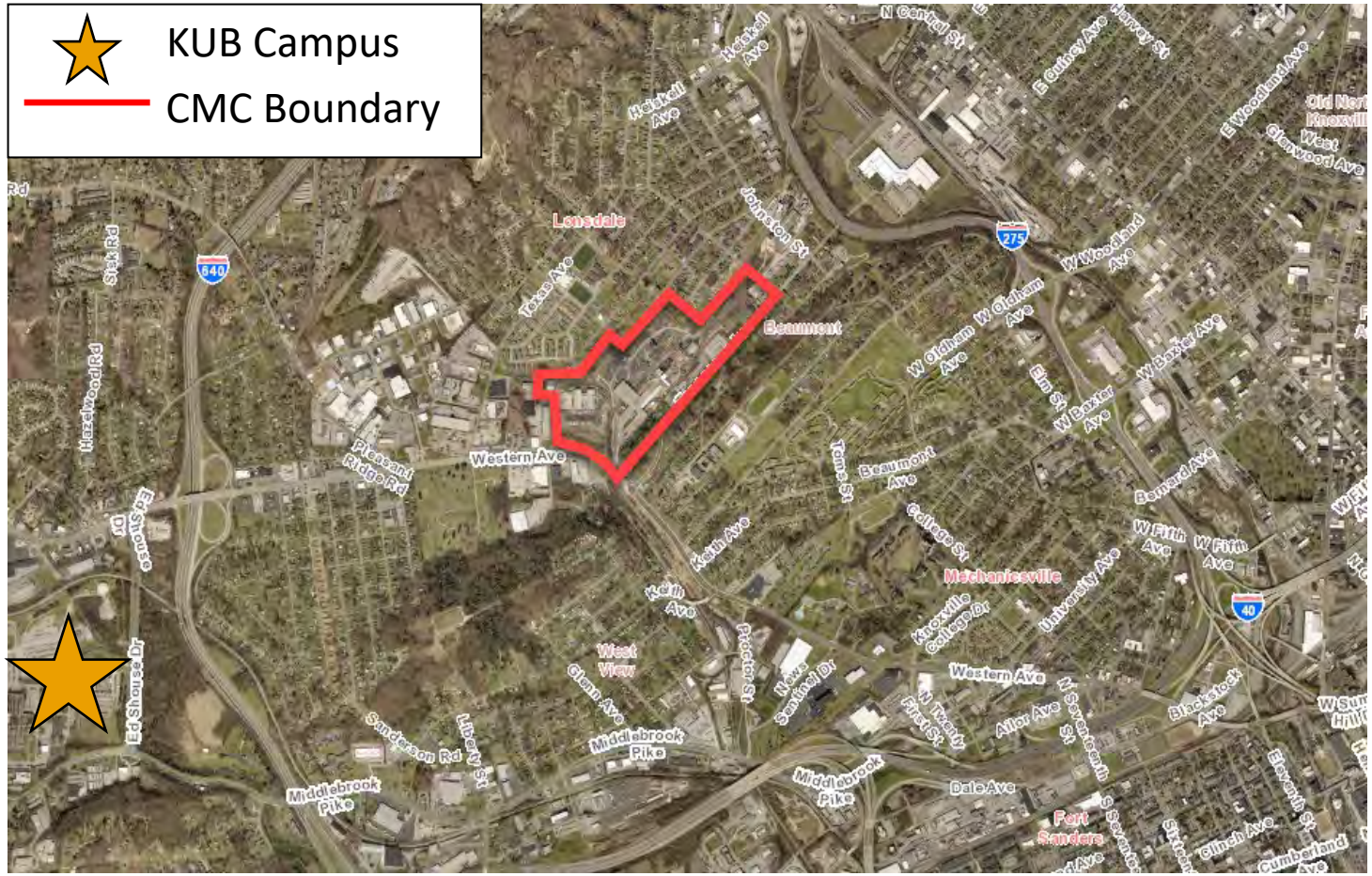

KUB

February 17, 2022

Commercial Metals Company
Natural Gas Meter Set Relocation Project

Commercial Metals Company (CMC)

- Headquarters in Irving, TX
- Steel mill producing high-quality long steel rebar
- Predominant raw material is recycled metal from PSC Metals
- Site purchased by CMC in 2018
- Large employer in Knoxville area



CMC Community Impact

- Top 10 in consumption
  - Electric – 2nd
  - Natural gas – 2nd
  - Water – 10th
- Long-term commitment
  - 10-year power supply contract
  - Environmental sustainability
  - Community engagement

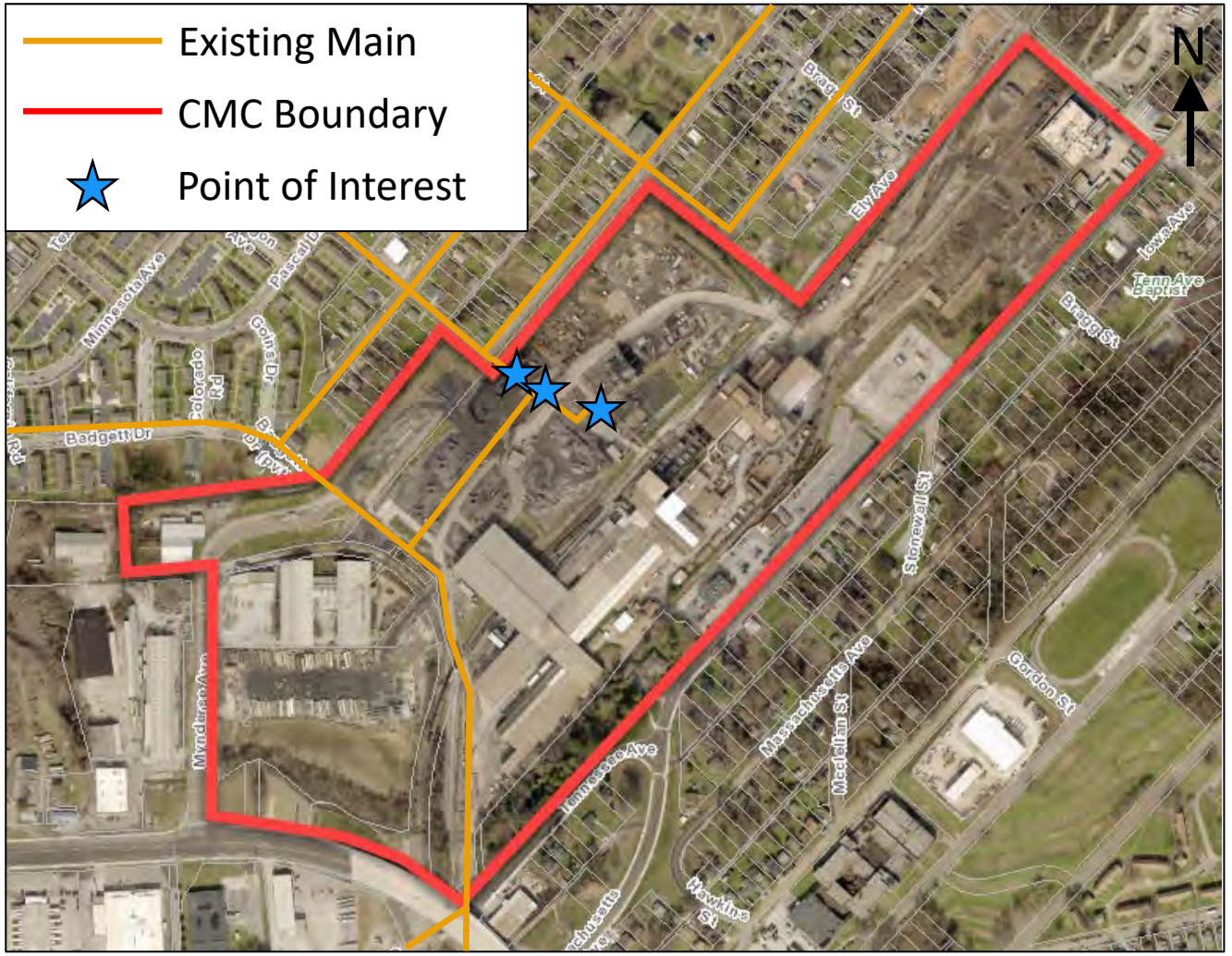
CMC Commercial Metals

Natural Gas Meter Set Relocation Project

1. Meter assembly in middle of industrial site

2. Encroachment of material piles and roads

3. Coating anomaly on steel pipe under truck ramp



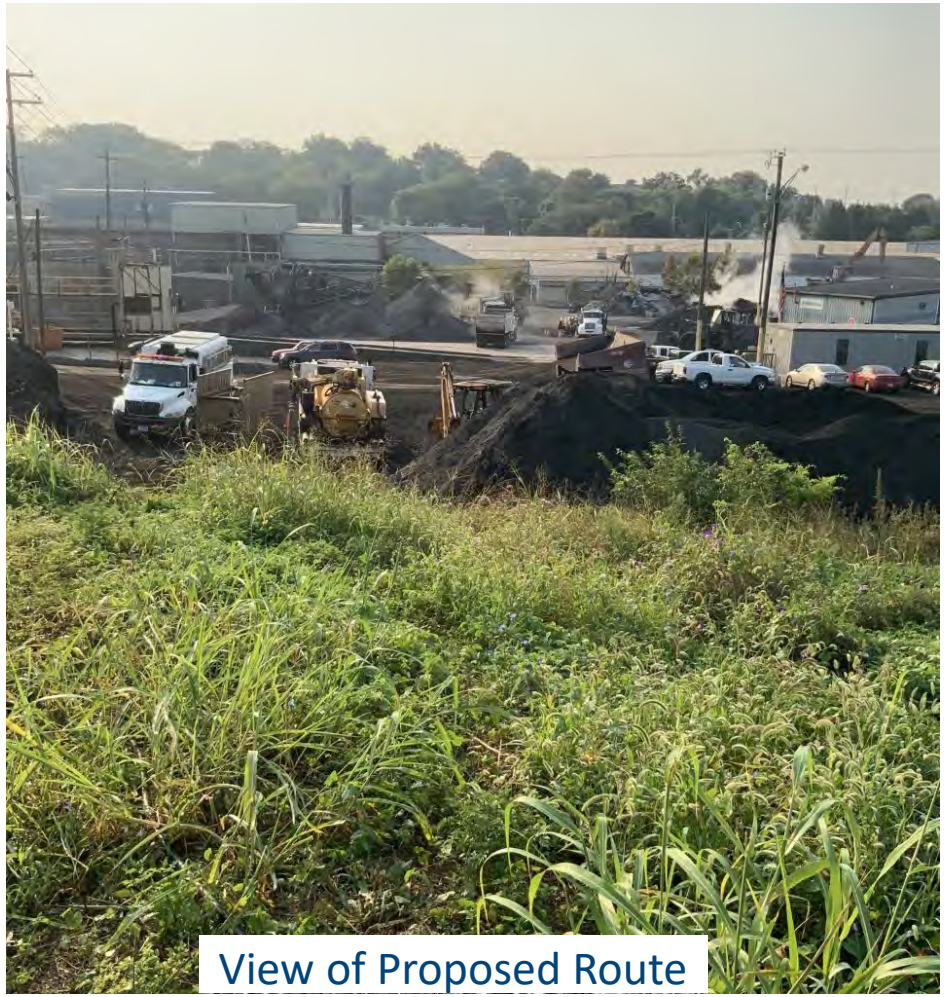
Three Converging Issues

Location of Coating Anomaly

Encroachment - Mill Scale Piles

Existing Meter Assembly

Customer Focus Led the Design



View of Proposed Route

Slag Pile – Production Byproduct

Improved Access for KUB and CMC

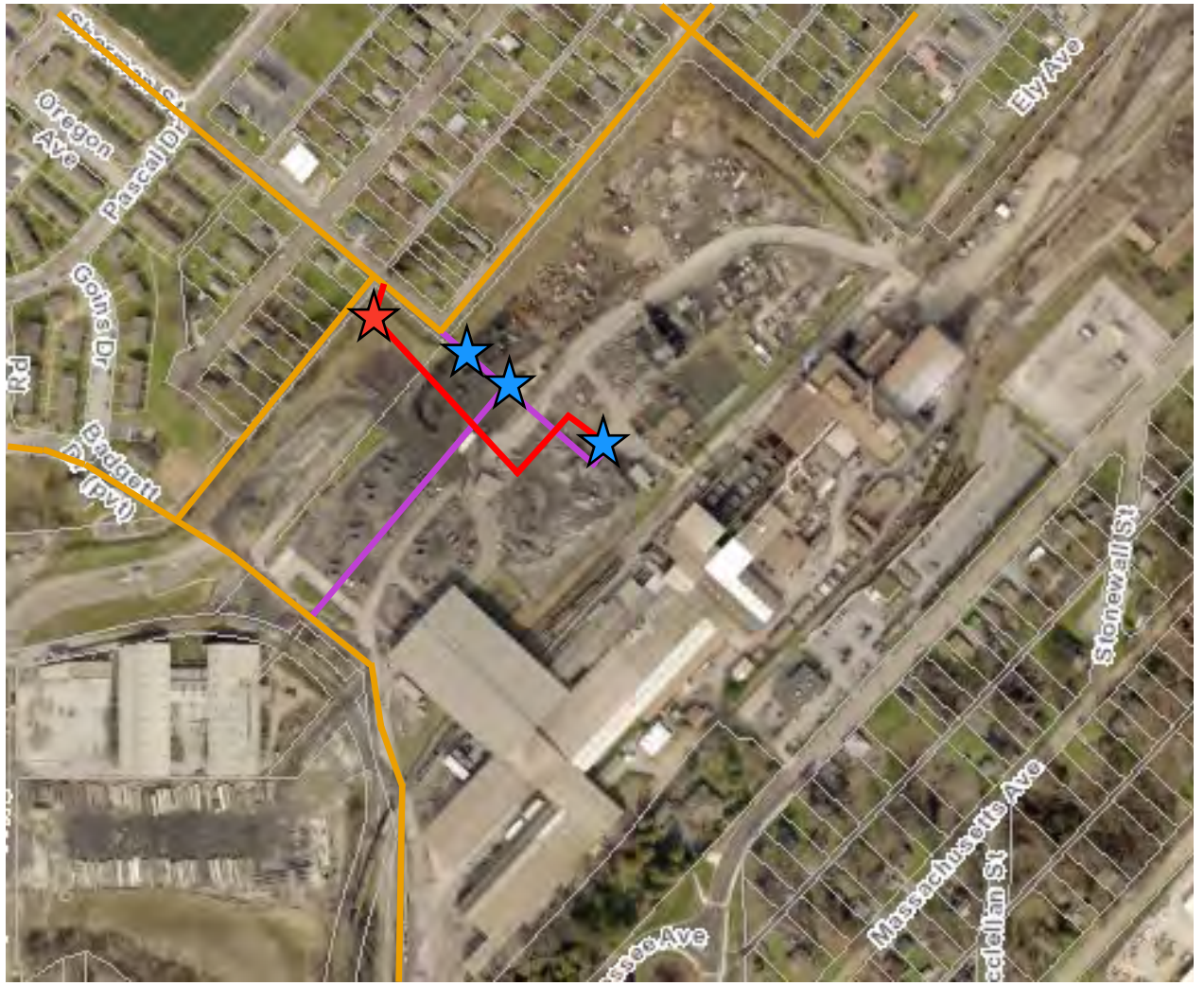
Condemned Main

Existing Main

Proposed Fuel Line

Point of Interest

New Meter Center



Construction Required Coordination Between Departments

UGC Bore Crew

12-inch Fuel Line

Meter Crew Installing Meter Assembly

Previous Meter Assembly and Set Up

Previous Meter Assembly

Fuel Line Tie in at Previous Meter Assembly

New Meter Assembly

Thank You!

- Underground Construction
- Meters
- Key Accounts
- System Maintenance
- Vegetation Management

- Safety & Technical Services
- System Operations
- Gas Systems Engineering
- Electric Systems Engineering


KUB

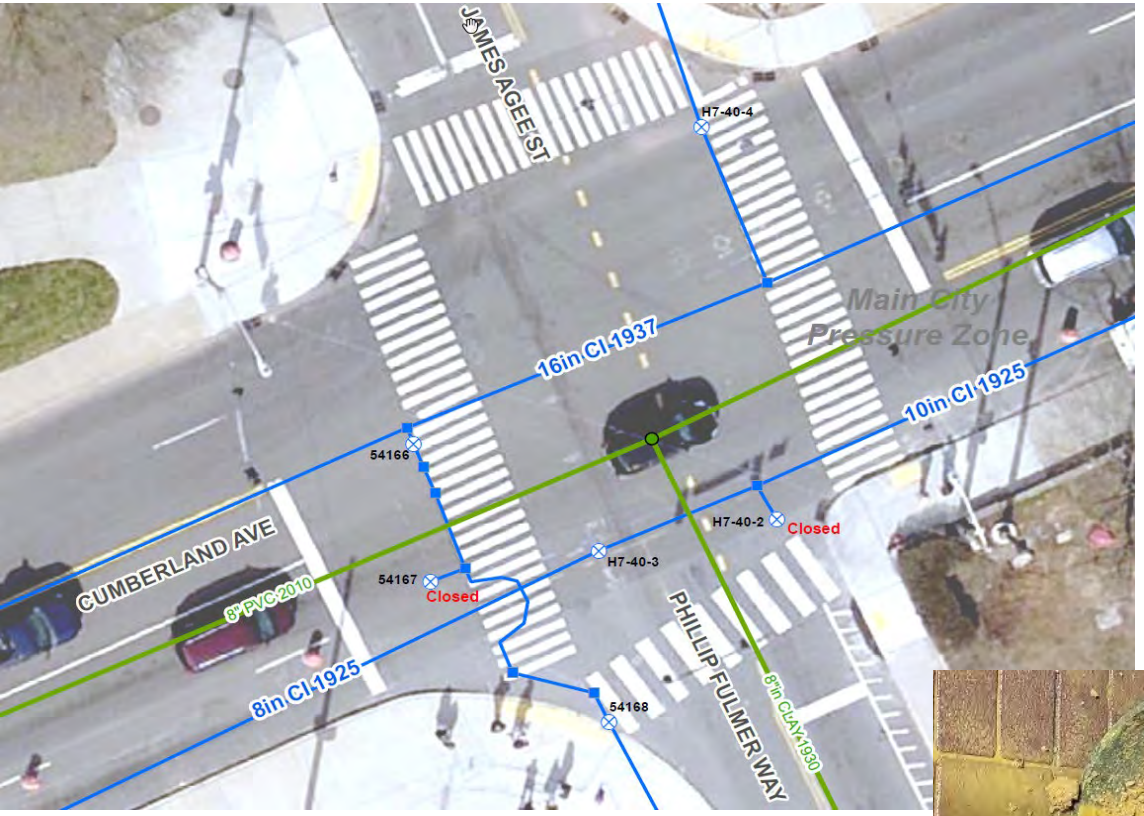
February 17, 2022

Cumberland Avenue Water Main Repair

Week of January 24

- Underground Construction repaired 25 water mains
- 21 on Cast Iron Pipe
  - 14 repairs on pipe installed >80 years old
- 2,100 person hours worked

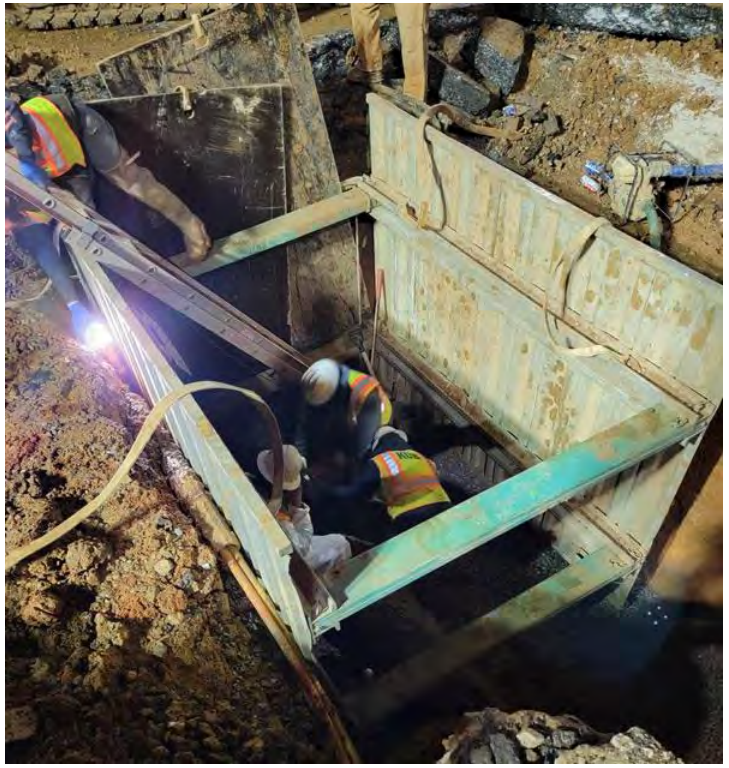
16-inch Break Phillip Fulmer & Cumberland



Piece of main removed

16-inch Break Phillip Fulmer & Cumberland

- 24+ hour repair
- 31 employees responded
- Estimated cost to date $85k
- Challenges included
  - Additional 8-inch break
  - Damage to sewer
  - Existing utilities
  - Frigid temperatures
  - Large warehouse fire
- University of Tennessee and KFD support



Additional Breaks

12-inch Kingston Pike

10-inch at North Central

“We Value the Commitment and Hard Work of Our Employees”

- 10 days, 25 mains repaired, and 2,100 hours worked
- KUB’s valve program resulted in quick main isolation
- No significant customer or system impact
- Zero safety incidents

Chief Bobby Palmer, KFD

“….very grateful to have KUB as a water provider that night(of the fire). Keep up the good work”


KUB