



TUALATIN VALLEY
WATER DISTRICT

THE PRESSURE IS ON

Replacing a Crumbling Regulator Vault

Joel Ayres

May 1, 2024



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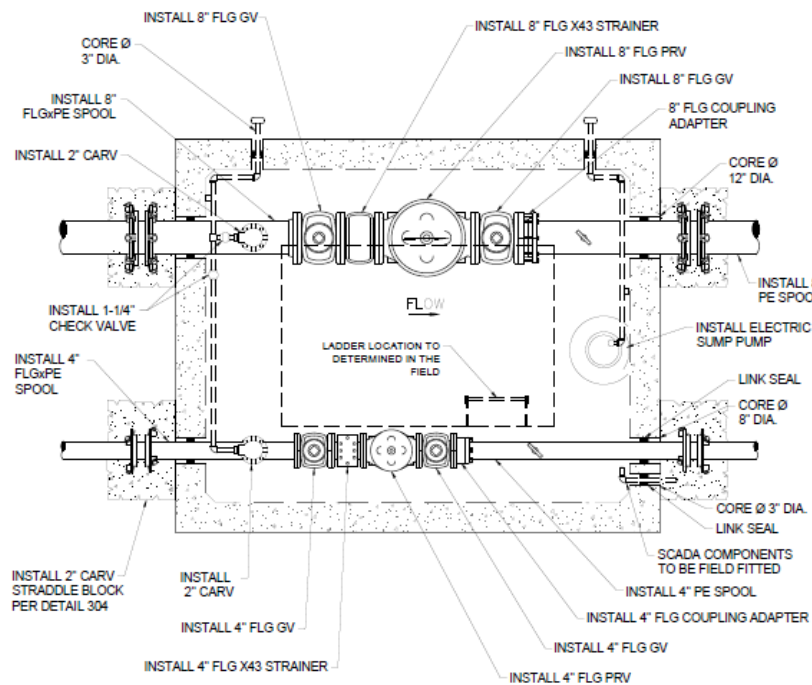
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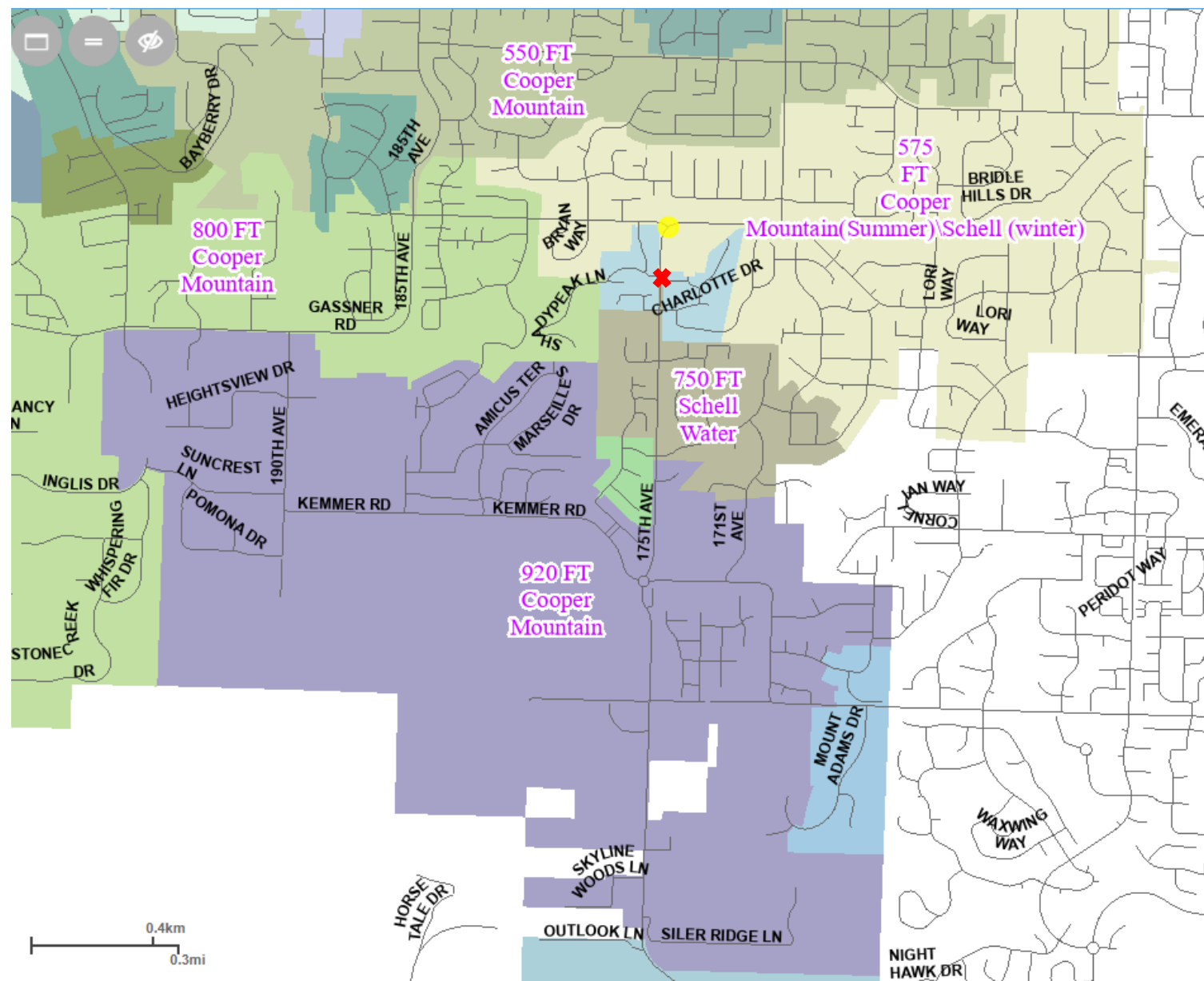
Agenda

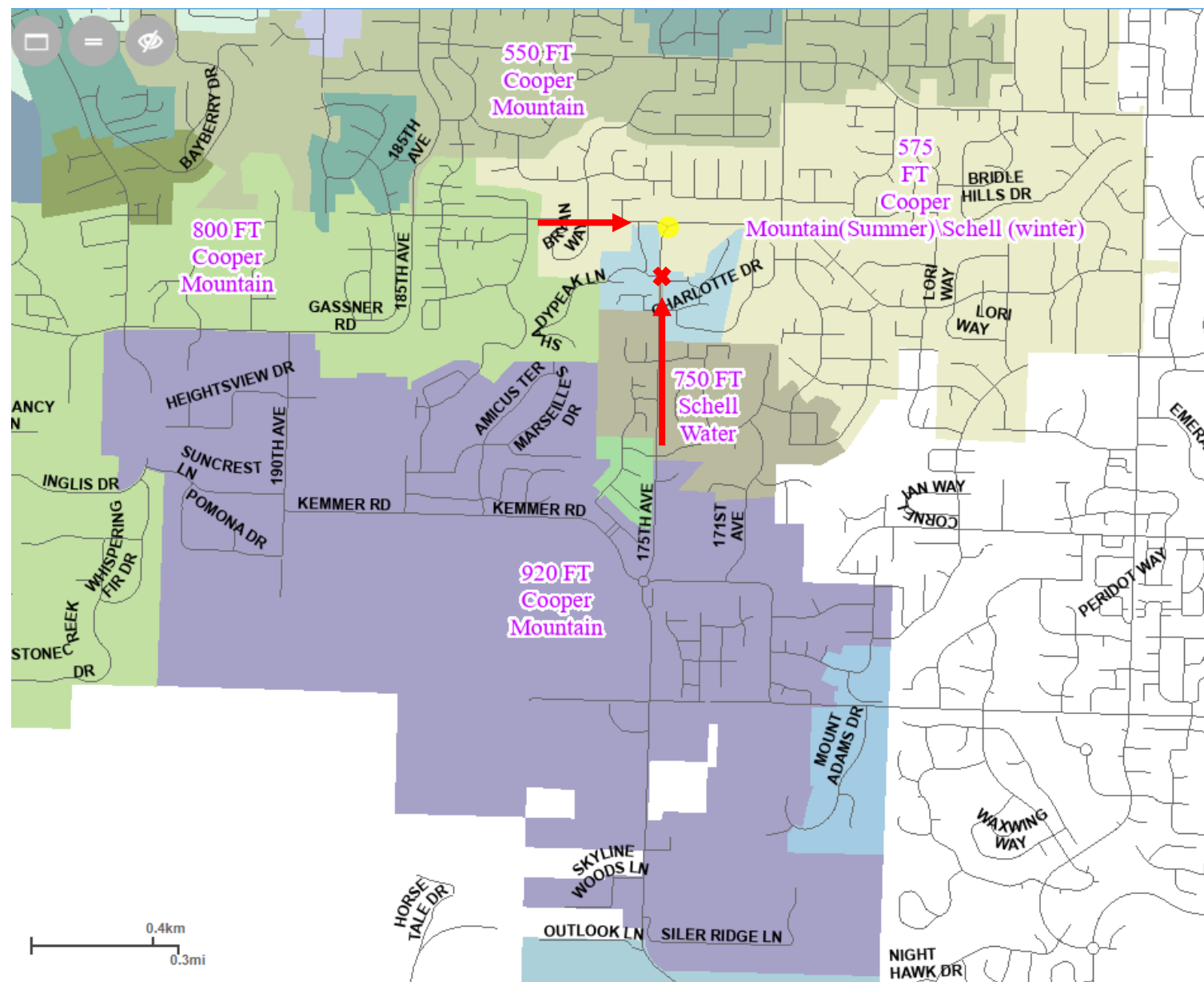
The problem: *Failing PRVs and Vault – Critical feed*

The solution: *Full replacement*

The execution: *How it actually got done*

















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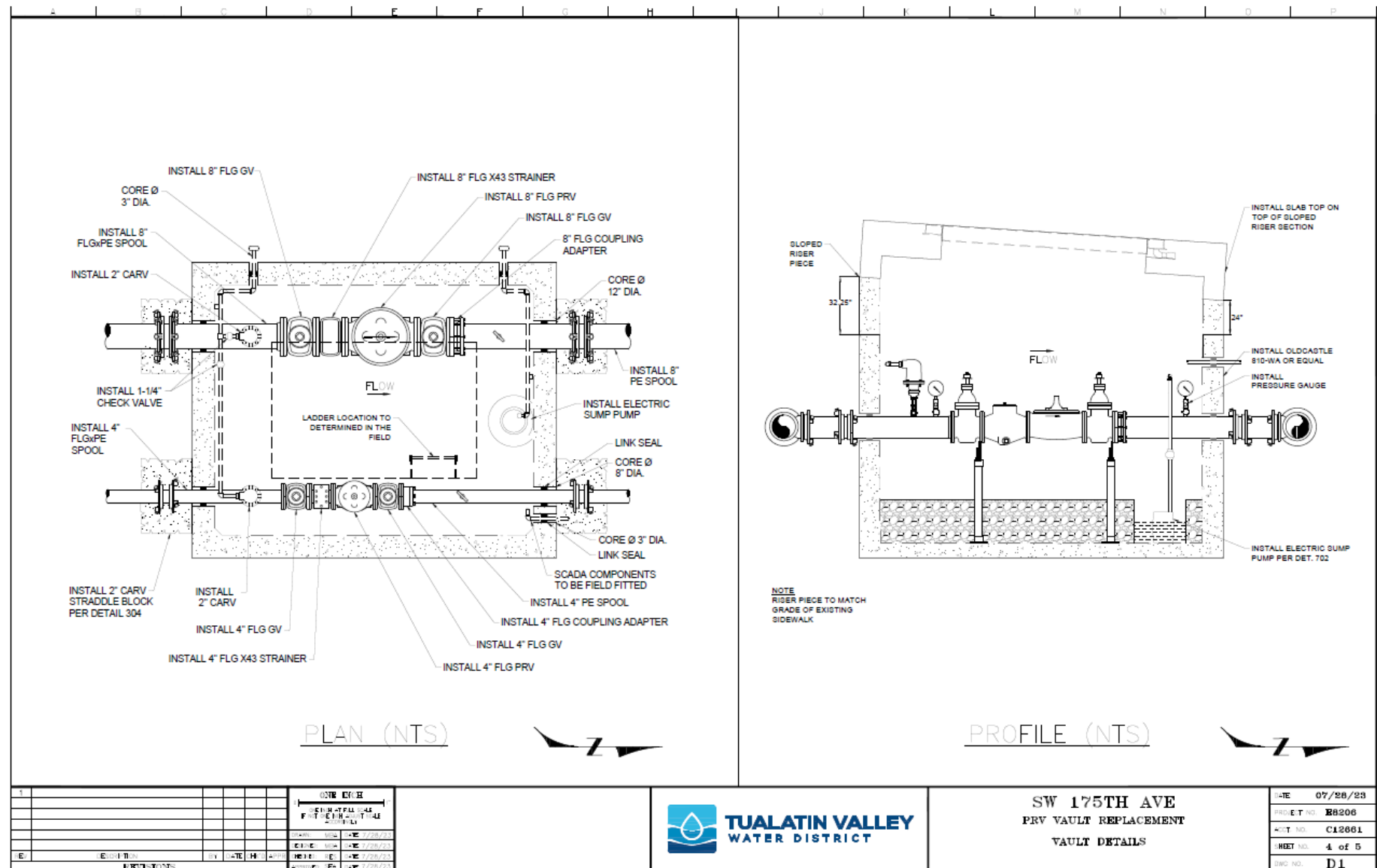
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Challenges

How do we isolate the system to dewater for work?

How will we maneuver in a small work zone on a steep slope?

How will we shore an excavation large enough for this vault?

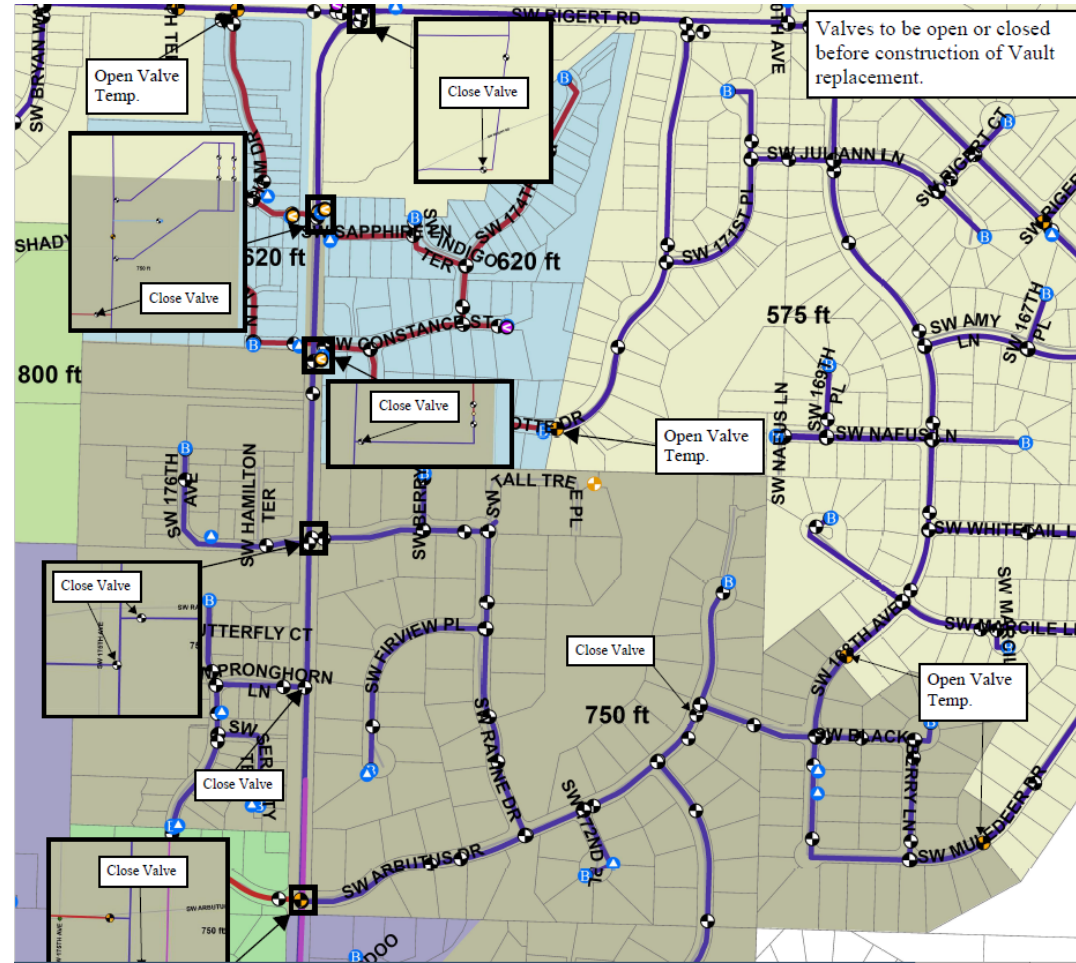
How will we move this large vault?

Plus, the unknowns...



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Home / Water Works / Valves / Resilient Wedge Gate Valves / PermaSeal™ Insertion Valve



PERMASEAL™ INSERTION VALVE

The PermaSeal™ Insertion Valve is the first inserting valve solution that is a true Resilient Wedge Gate Valve capable of delivering reliability, longevity, functionality, and repeatable water shut-off throughout the valve's lifetime. The innovative design allows for insertion into existing water mains with minimal service disruption and dependable functional service life, making it an ideal solution for any water network.

- Permanent, exercisable gate valve that functions and performs the same as a conventional Resilient Wedge Gate Valve with "Clean Seat" technology
- 350/ 250* psi rating and available in 4", 6", 8", 10", and 12" standard (DI, CI, PVC pipe) and oversized (A-C pipe) variants
- Compliant with all AWWA C-515 and C-223 standards including pertinent structural, functional, operating, and dimensionally important installation criteria
- Reduce the need for a shutdown, disruption to flow, or water contamination concerns resulting in time, cost, maintenance, and customer downtime savings
- Minimize environmental disruption through less excavation and reduced use of pipe and secondary materials

**250psi for H819 on AC pipe*

Why did we choose the Mueller valve?



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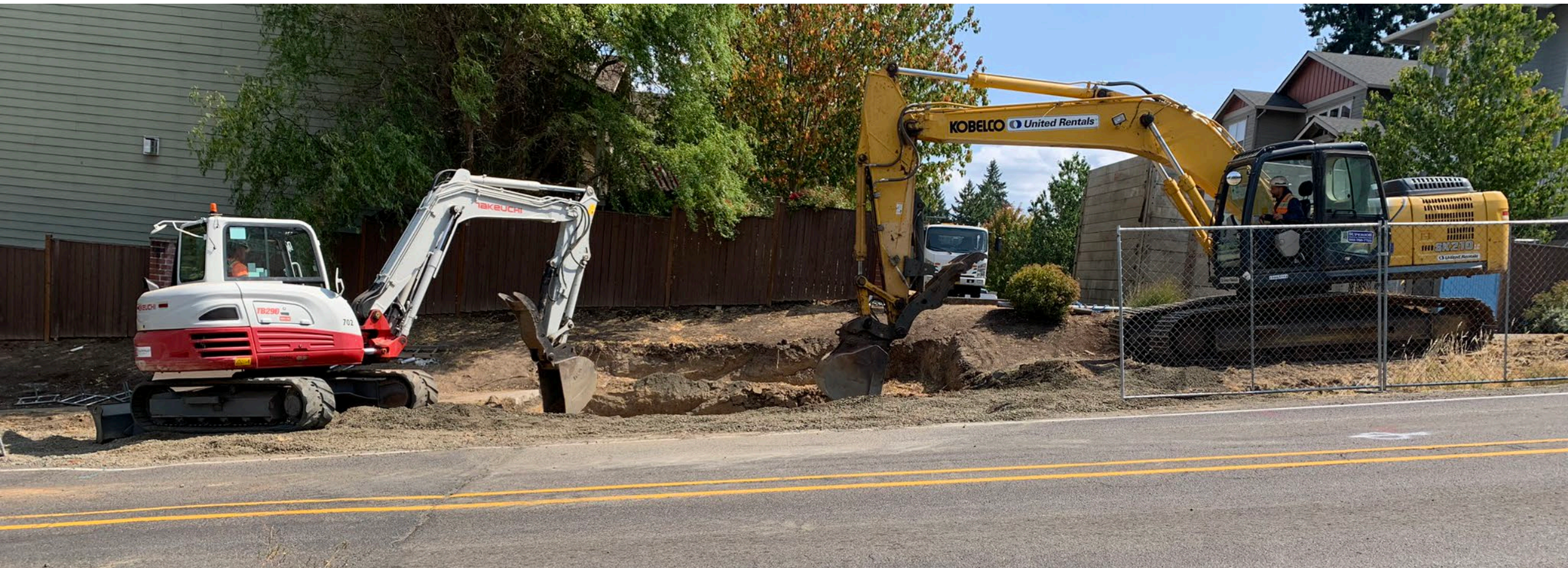


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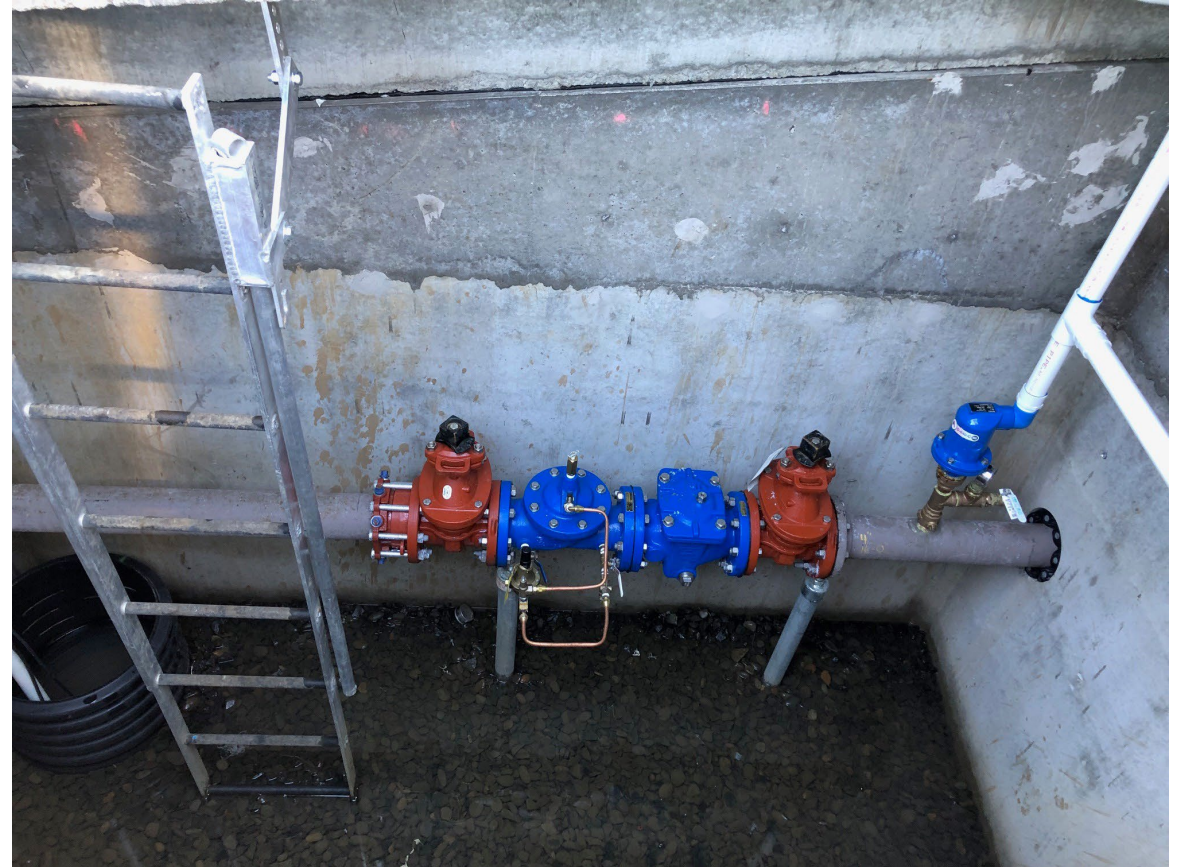


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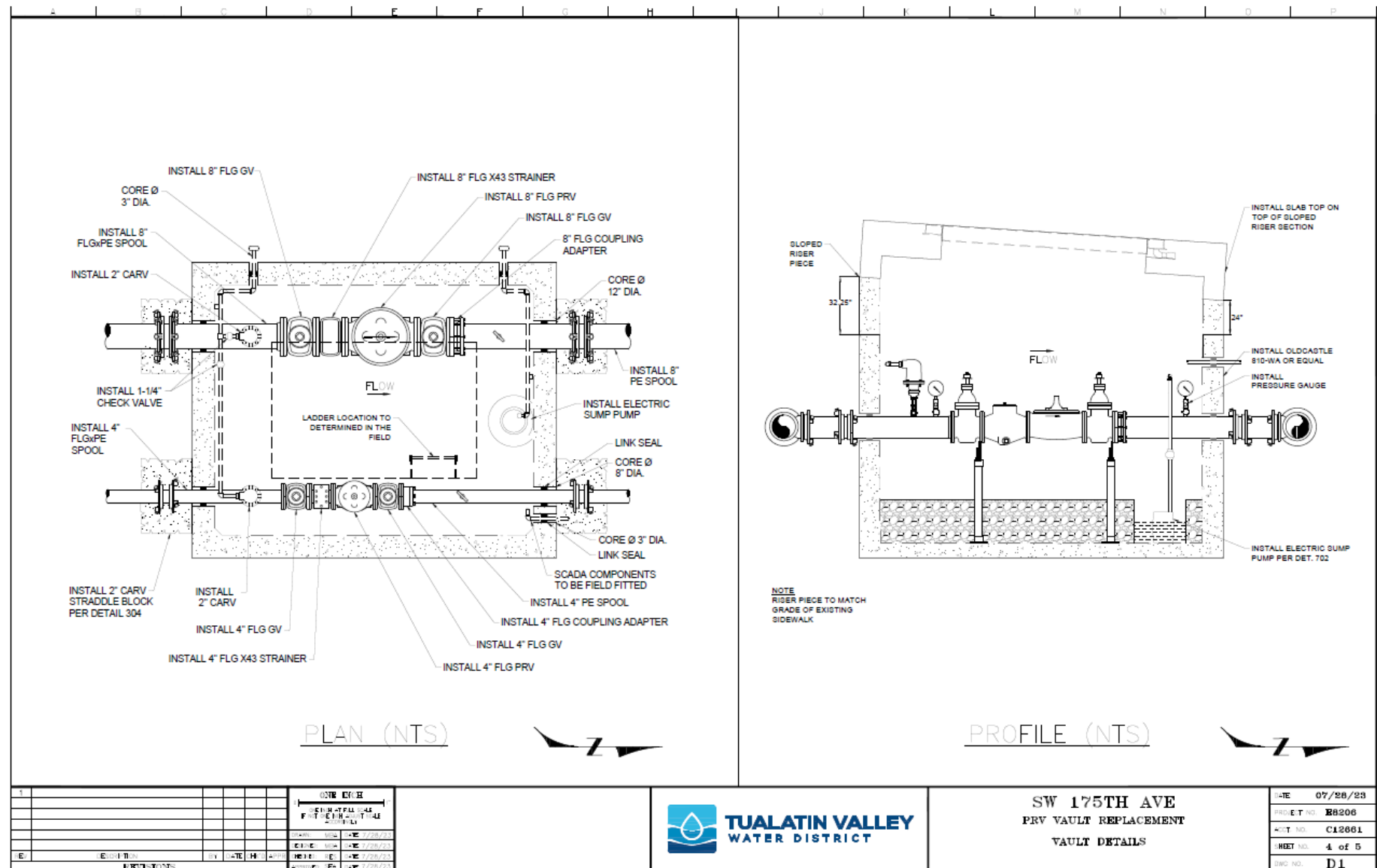
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Lessons Learned

Coordination between Engineering/Ops
Custom components of vault: riser section
Insert valve
Expect challenges
In-house allowed for flexibility



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Questions?