



**Madison
Water Utility**



7/26/2016 Water Utility Board Hearing
Unit Well 12 Upgrade and Conversion
to a Two Zone Well



Well 12 Proposed Facility Design and Operational Evaluations

Presentation and Reports Prepared By:

Pete Holmgren, PE | Project Manager, Madison Water Utility

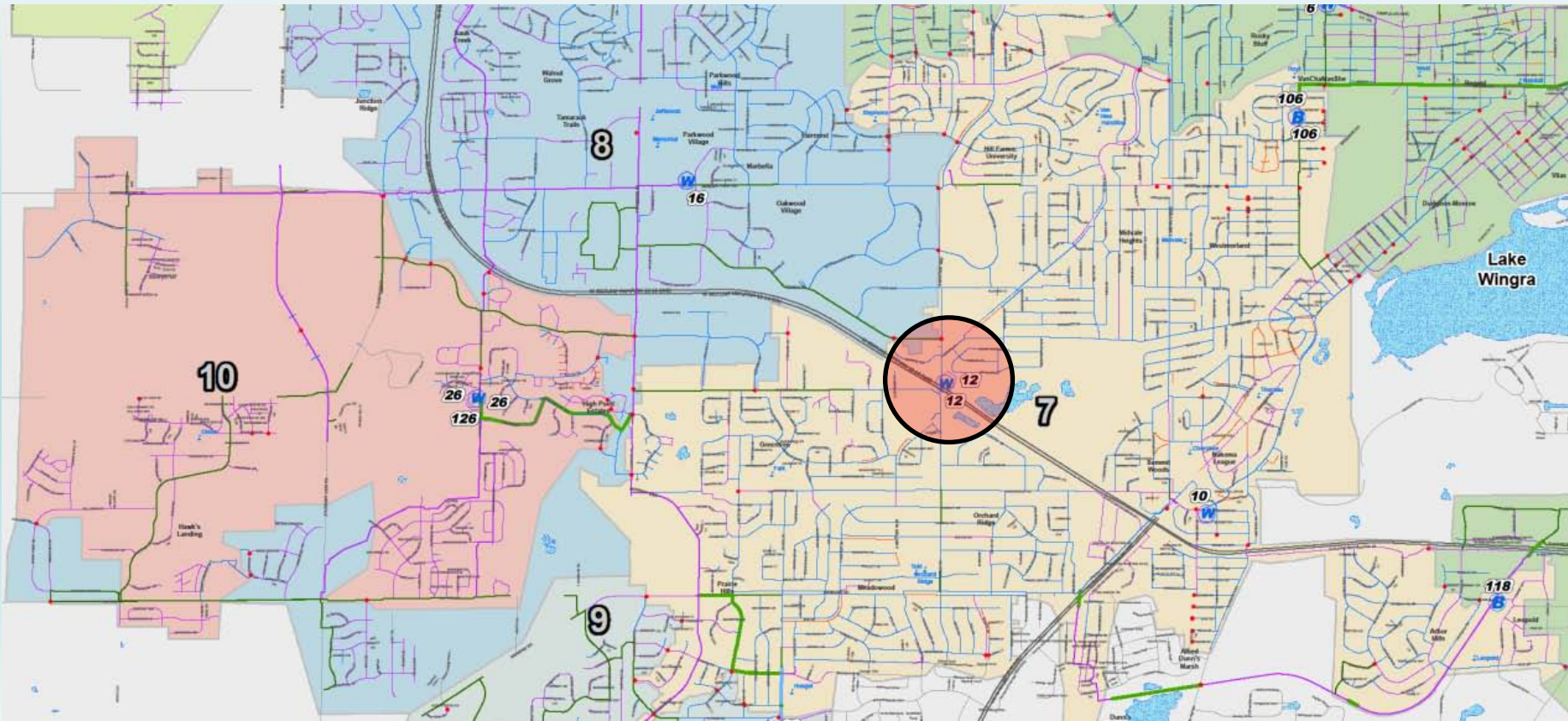
Al Larson, PE, BCEE | Principal Engineer, Madison Water Utility

Randy Sanford, PE | Principal Engineer, Short Elliot Hendrickson, Inc.

Doug Hursh, AIA, LEED AP | Director of Design, Potter Lawson

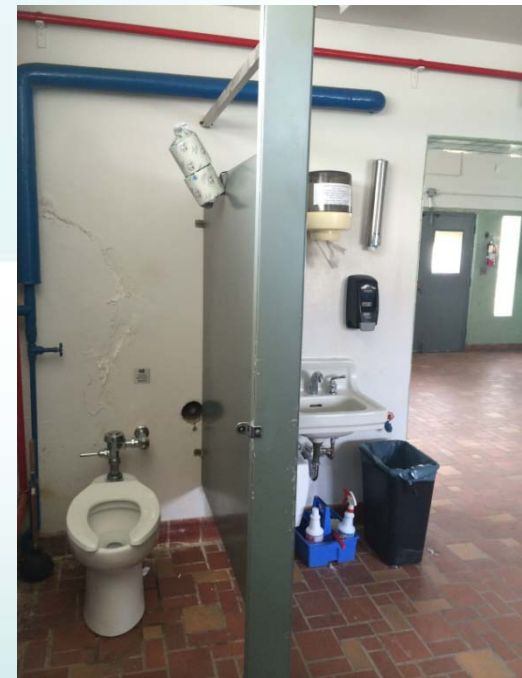
Project Background

- Recommendation of 2006 Water Master Plan to convert Well 12 to a two-zone well.
- Provide operational flexibility between Pressure Zone 7 and Pressure Zone 8 on the west side.



Project Description

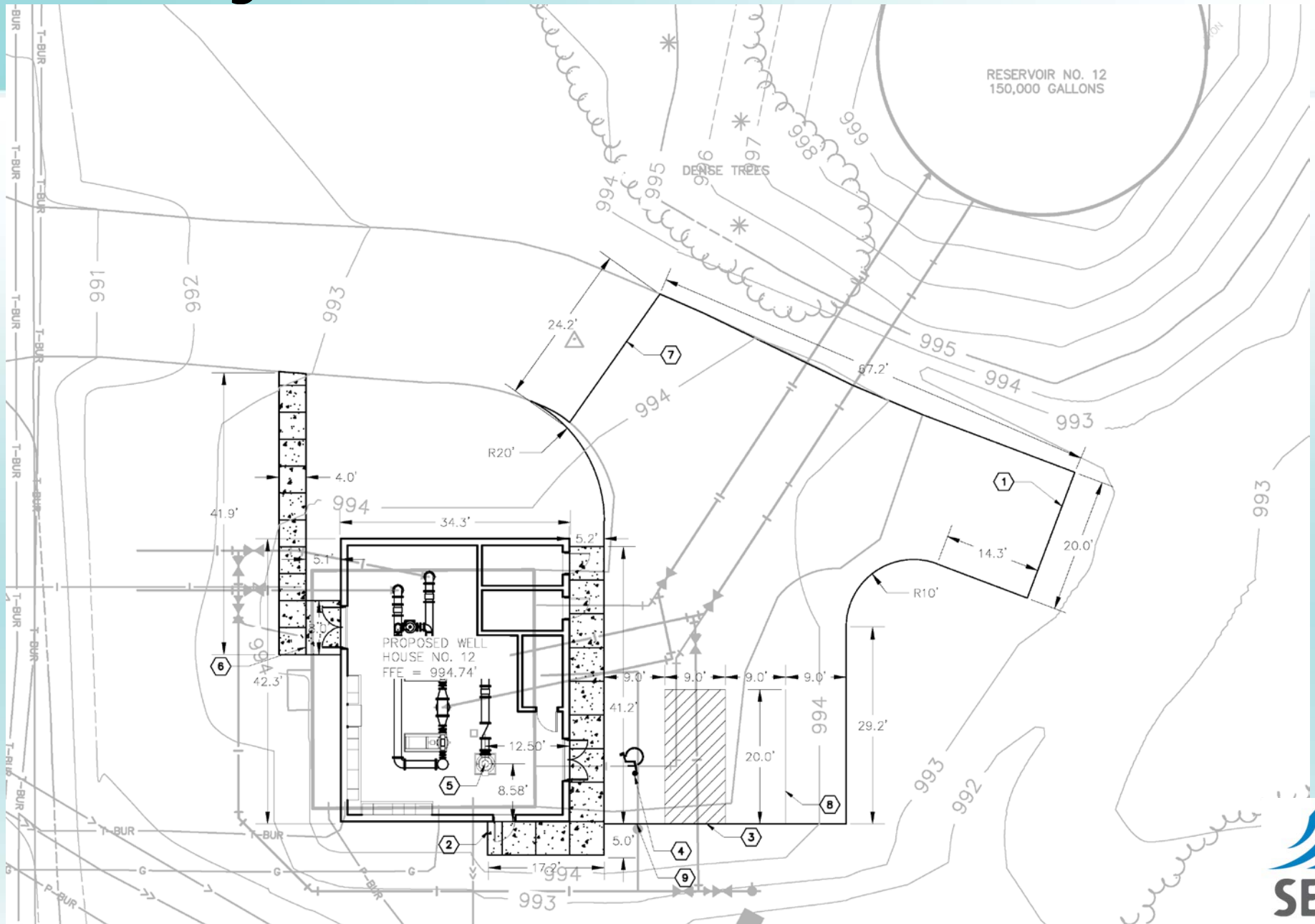
- Completely new building to include chemical feed rooms, bathroom, and deep well piping.
- Installation of 2 new pumps, capable of pumping water to either Pressure Zone 7 or Pressure Zone 8.
- Replacement of the well/reservoir piping.



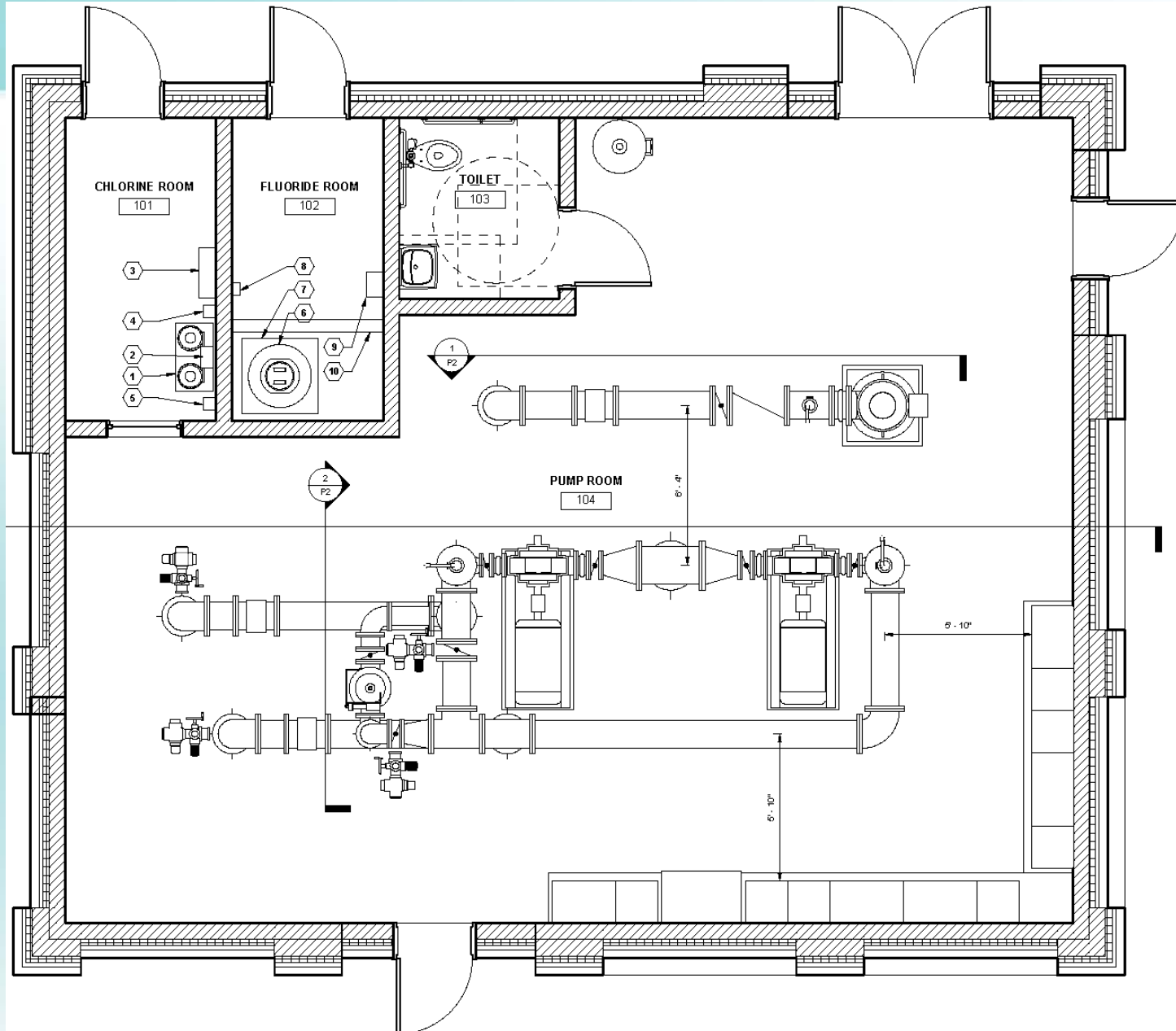
Project Description, cont.

- Addition of a pressure-reducing valve to allow water to flow from Zone 8 to Zone 7 if necessary.
- Associated piping and motor operated valves to allow station operation to be remotely controlled.
- Metering for the deep well, Zone 7 and Zone 8.
- Total replacement of electrical and control system.
- Installation of new pipelines for Zone 7 and Zone 8 on Whitney Way (separate contract).

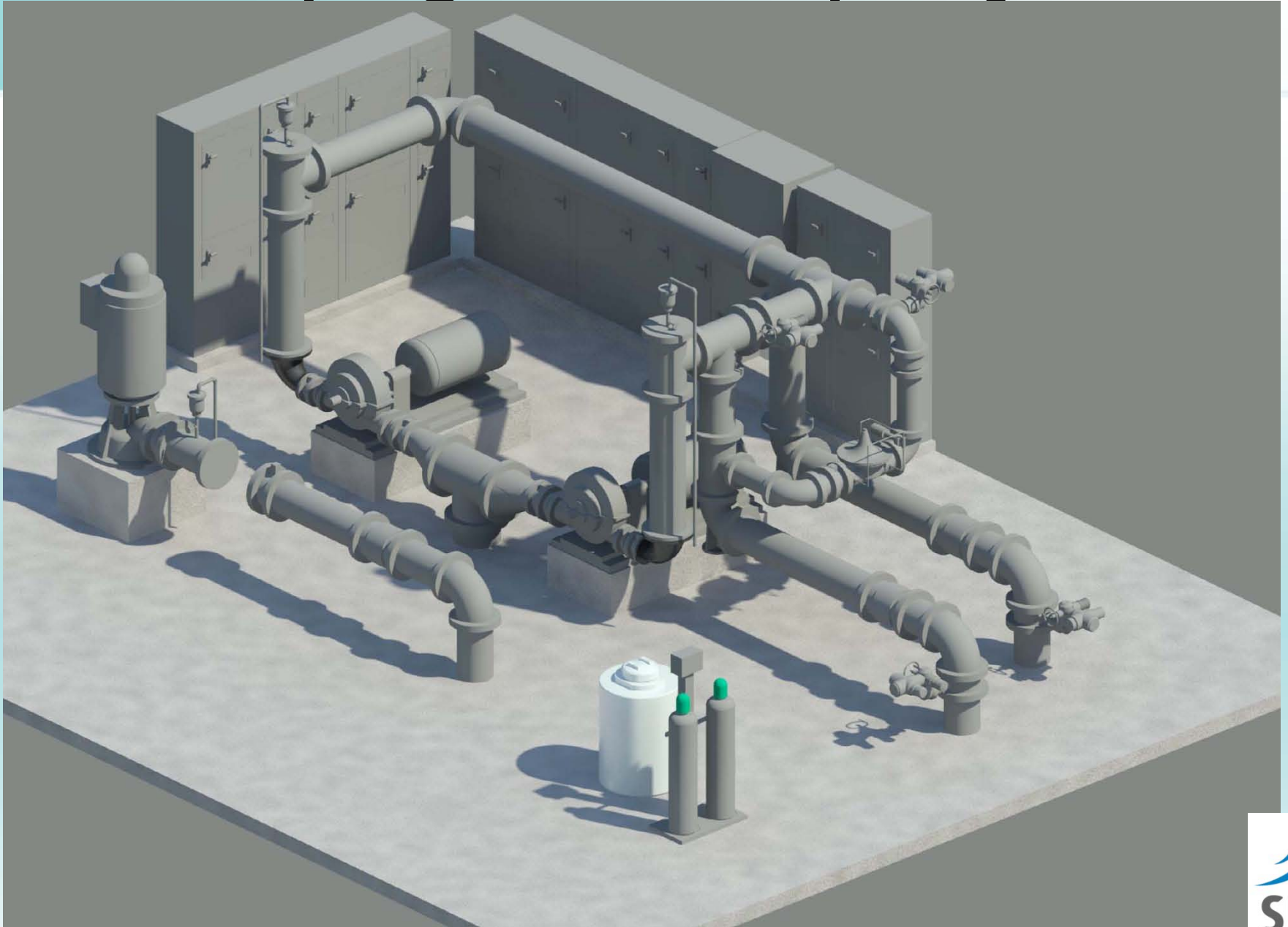
Site Layout



Interior Piping and Pump Layout



Interior Piping and Pump Layout



Whitney Way Watermain Upgrades



- Separate contract.
- New 16" Pipeline for Pressure Zone 7.
- New 16" Pipeline for Pressure Zone 8.
- Construction to begin in April 2017.

Architectural Renderings



Architectural Renderings



Architectural Renderings



View from East

Architectural Renderings



Project Schedule

- Water Utility Board Meeting: 7/26/2016
- Complete Approved Design: Aug. 2016
- Project Ready for Bid: Nov. 2016

Project "Shelved" Until Fall 2017

- Project Bids Received: Dec. 2017
- Construction Starts: Mar. 2018*
- **Project Completion: May 2019**

*Note: Facility to be out of service from approximately March 2018 to May 2019. This will not cause system outages in the area.

Project Cost Estimate Update (50%)

Item	Cost
Piping	\$150,000
Valves	\$150,000
Civil	\$250,000
Building	\$250,000
Pumps	\$150,000
Electrical & SCADA	\$800,000
Chemical Feed	\$50,000
Mechanical (HVAC & Plumbing)	\$200,000
<u>Subtotal</u>	<u>\$2,000,000</u>
Contractor Profit (Est. 12%)	\$240,000
Insurance (Est. 3%)	\$60,000
Contingency (10%)	\$200,000
<u>Total Estimate</u>	<u>\$2,500,000</u>

*Current Project budget approx. \$2.8M

Discussion and Q&A