City of Westminster

COUNTRYSIDE PUMP STATION REPLACEMENT AND TANK REPAIRS PROJECT

Project Open House Meeting July 20, 2017

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This is Your Community

The Intent of This Discussion is to Review The Project and How It May Affect You

Discussion Outline

1. Background on the Utility System
2. Review the West Side Pump Stations Project
3. Discussion of the Countryside Project
4. Renderings and Typical Construction Photos
5. Special Precautions to Minimize Neighborhood Disruption
6. Proposed Schedule
7. Questions

Westminster Is a Full-Service Utility Valued at $4Billion

Source Water System → **Potable Water Treatment** → **Potable Distribution System** → **Wastewater Collection System** → **Wastewater Treatment System** → **Reclaimed Water Treatment** → **Reclaimed Distribution System**

Water Quality & Compliance Monitoring Systems

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The Utility Has an Array of Infrastructure

1. Massive Watershed & Canal System
2. 15 & 42 MGD Water Treatment Facilities
3. 10 MGD Reclaimed WTF
4. 10 MGD WWTF
5. 15 Pump Stations
6. 7 Sewage Lift Stations
7. 550 Miles of W Main
8. 450 Miles of WW Pipe
9. 14 Tanks (W+Reclaimed W)

Despite Massive Infrastructure Wastewater is Treated at Low Cost

1. Convey and Treat a Toilet Flush for Just a Penny.

=

X 1

Despite Massive Infrastructure Water is Delivered at Low Cost

1. Fill 8-ounce cup at the faucet 58 times for just a penny

=

X 58

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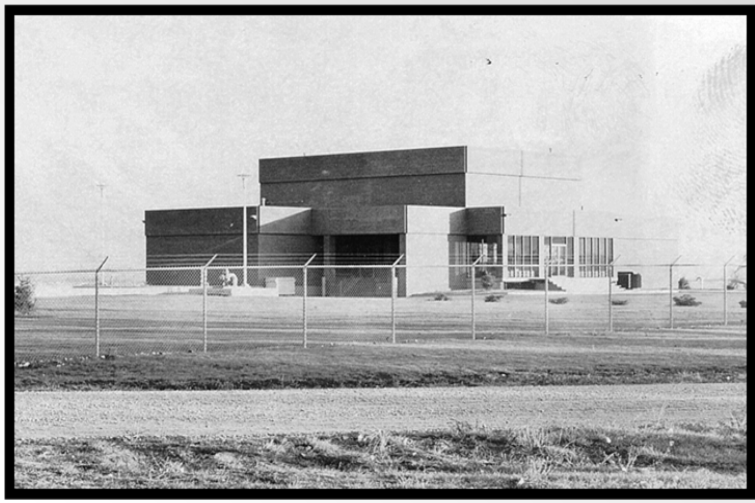
There are Five Core Goals For the Potable Water System

1. Safety for Public and Operations Staff
2. Regs Compliance & Multiple Barriers
3. Deliver Exceptional Water Quality
4. Deliver Exceptional Reliability
5. Deliver Exceptional Value



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Potable Water Service is Enhanced via Adjusting System Pressures

1. Pumps – increase pressure
2. Pressure Reducing Valves - decrease pressure
3. Tanks - sustain pressure & flow for a period of time

<u>Redundancy is Important</u>

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Water Tanks and Pump Stations are Important for Four Main Reasons

1. Provide Sustained Water Pressure In The System
2. Provide Water Flow During Periods of High Demand
3. Provide Water During Emergency Situations
   - Power and/or Water Supply Outages – 1 day of demand in storage.
   - Fire Protection
4. Provide Significant Operational Flexibility

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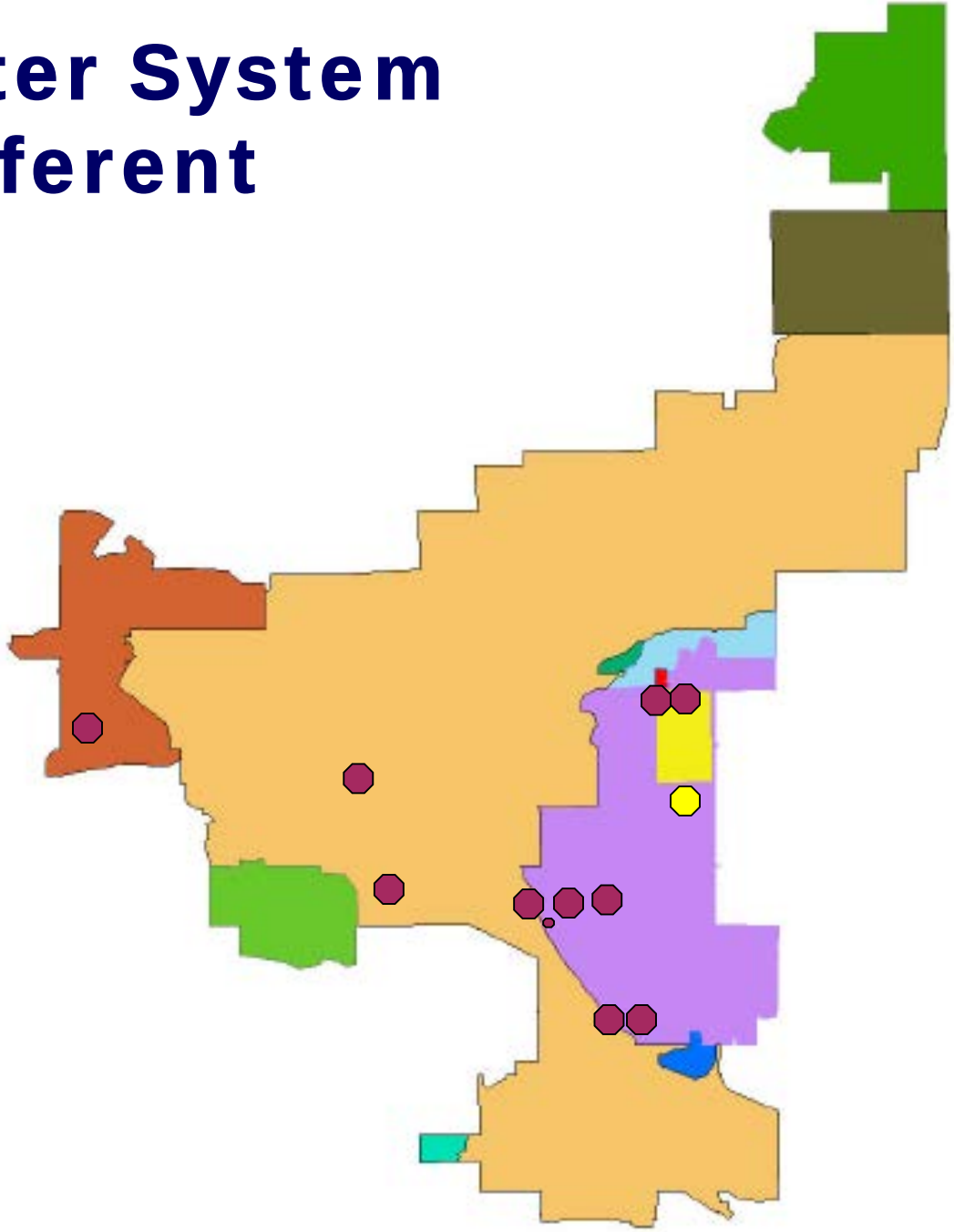
The Potable Water System Serves Many Different Pressure Zones



- *Existing Ground Water Tanks*
- *Existing Elevated Water Tank*

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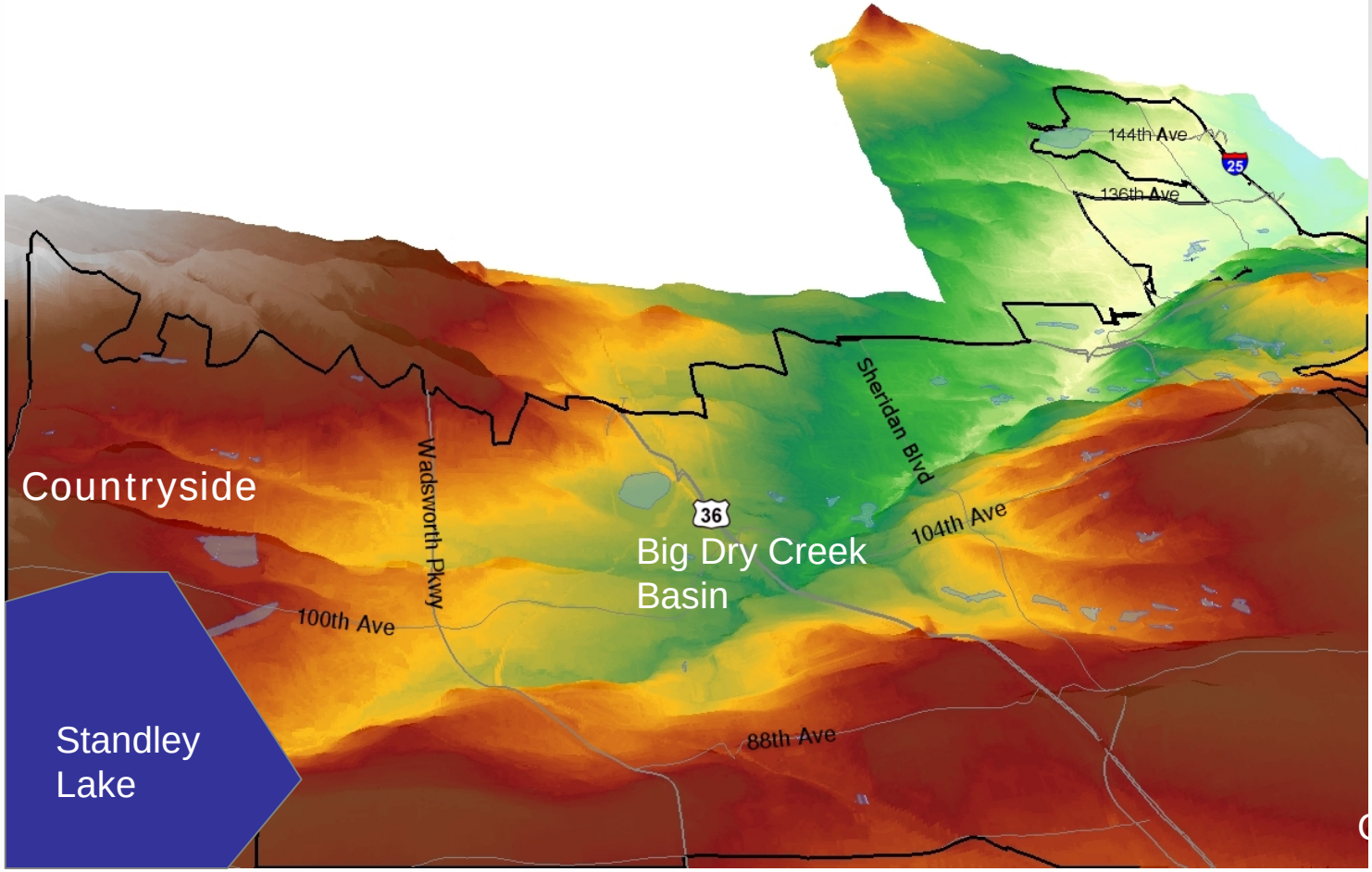
Geographic Relief Requires the Use of Different Pressure Zones



Infrastructure is Maintained with a Clear Mission

Plan, Prioritize, and Implement Capital Improvement Projects within a Responsible Budget To Sustain Quality Utility Services

Recent Examples of Your Utility Dollars Hard at Work

1. Tanks and Pump Stations
   a. Wandering View Tanks and Pump Station
   b. Northridge Tank and Pump Station
   c. Gregory Hill Tanks and Pump Station
   d. Eaton, Jim Baker, and Silo Pump Stations
2. Treatment Facilities
   a. Repairs to Semper & Northwest Water Treatment Facility
   b. Repairs Big Dry Creek Waste Water Treatment Facility
3. Water and Sewer Mains
   a. 87th & Wadsworth Sewer Lift Station
   b. Little Dry Creek Interceptor Sewer
   c. Sheridan Water & Sewer Mains
   d. 88th/104th Water Mains

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The West Side Pump Stations Program Is The Latest Series of System Improvement Projects

1. Three Pump Stations Serve Pressure Zones 4 & 5
2. Correct Large Areas of Long-Standing Low Pressure
3. Increase Redundancy to the Existing Pump Stations
4. Replace Aging Infrastructure
5. Improve Safety of Workers and Residents
6. Improve Overall System Reliability

The Countryside Site Is East of the Intersection of 100th Ave and Simms St

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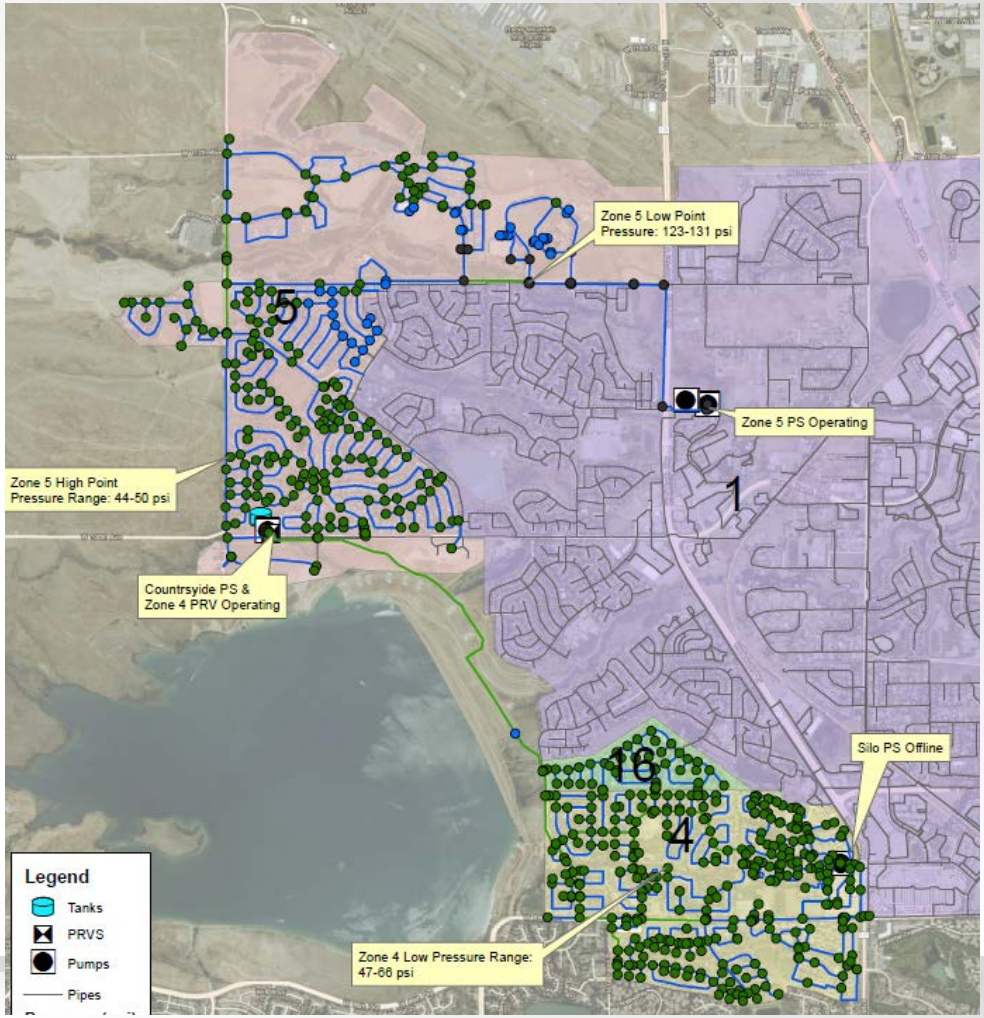
The West Side Pump Stations Scope Includes 5 System Improvements

1. Replace Aged Equipment at the Zone 5 PS
2. Replace the Existing Countryside Pump Station
3. Complete Repairs to the Existing 3 MG Concrete Storage Tank
4. Replace Site Pipelines
5. Install Surge Protection Equipment



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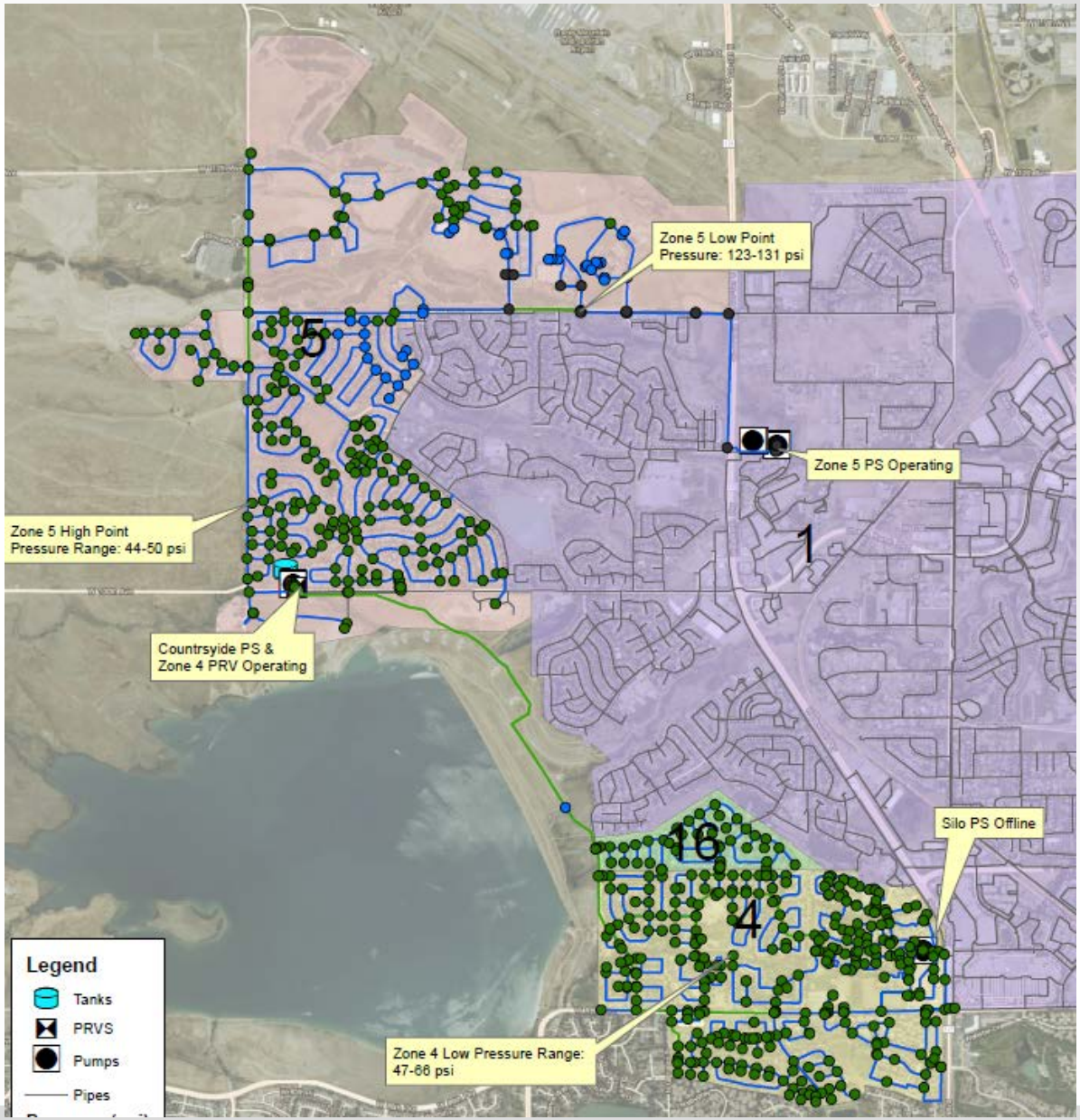

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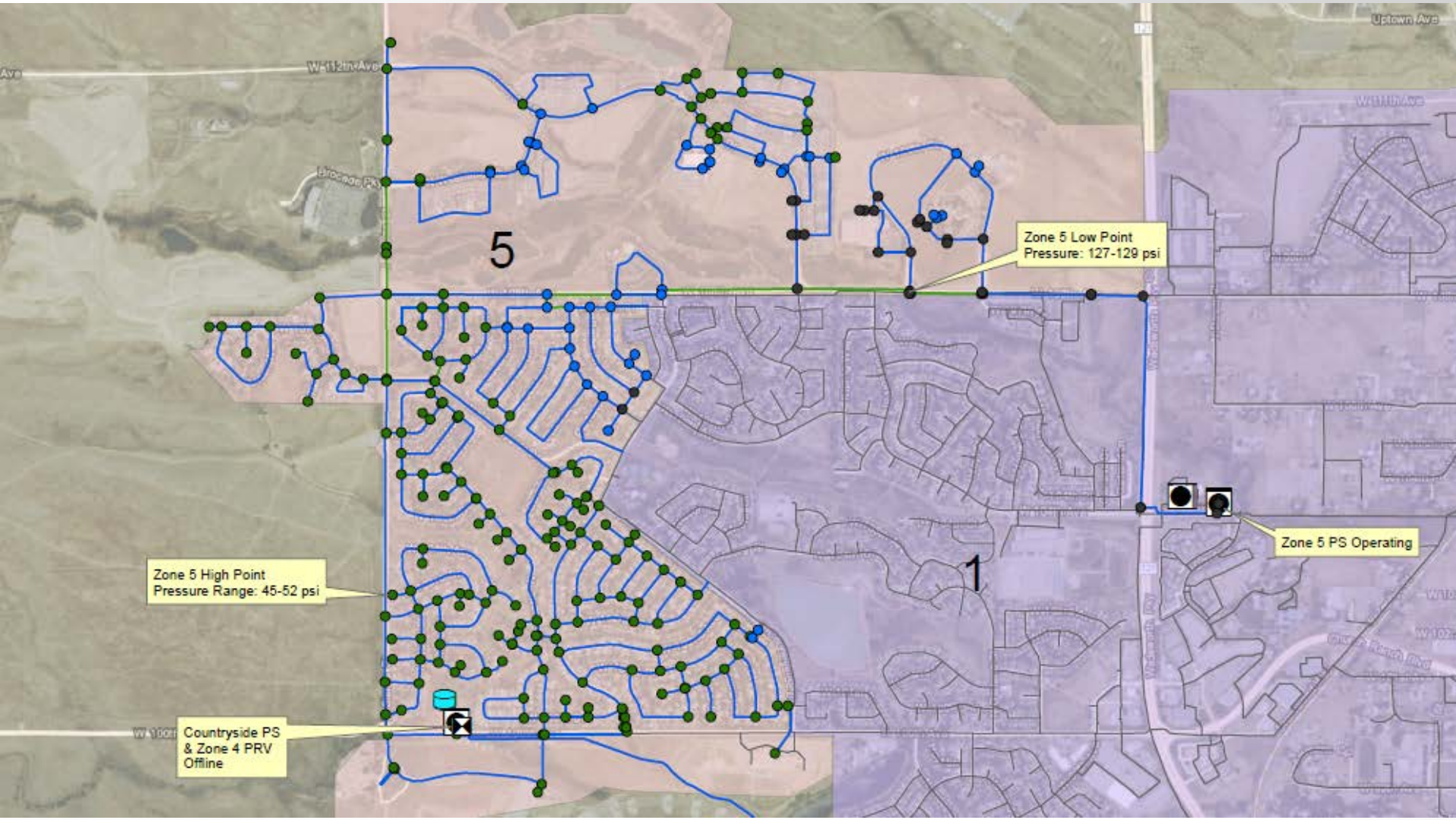

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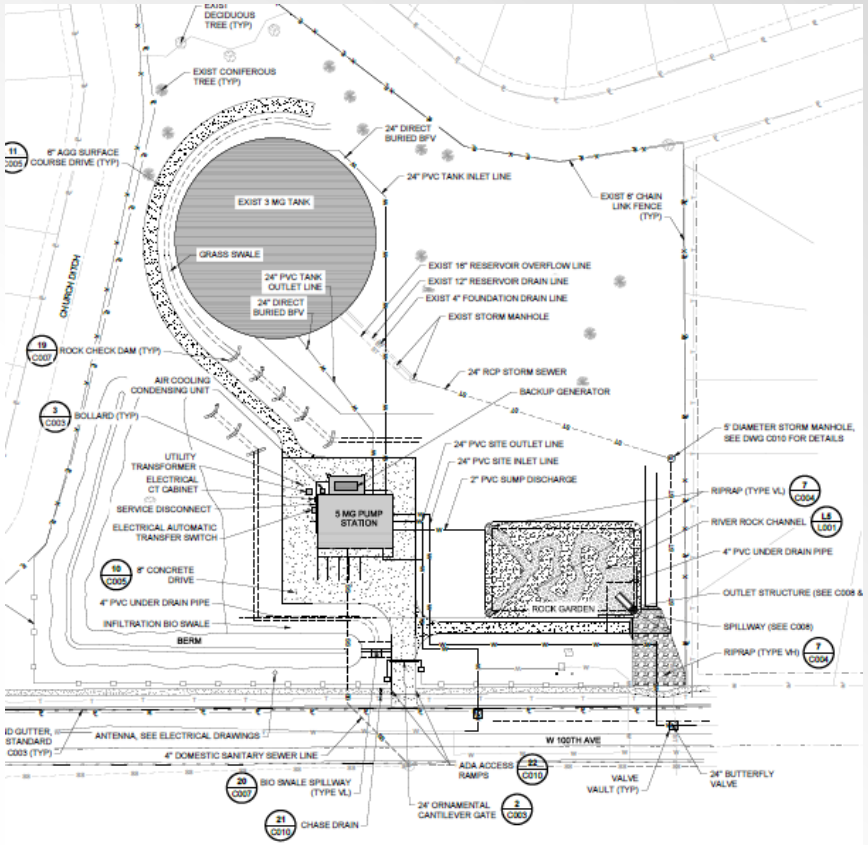
The West Side Pump Station Scope Includes 5 System Improvements

1. Replace Aged Equipment at the Zone 5 PS - Completed
2. Construct a New Countryside Pump Station
3. Complete Repairs to the Existing 3 MG Concrete Storage Tank
4. Replace Site Pipelines
5. Install Surge Protection Equipment



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Infrastructure Reinvestment is Necessary For Pump Station & Tank

1. Tank and Piping Constructed in 1980
2. Pump Station Constructed in 1983
3. Piping to the Tank and Pump Station is in Poor Condition
4. The Pump Station is Underground and has Reached the End of its Useful Life
5. Reliability and Worker Safety will be enhanced

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Countryside Remains the Best Site For the New Pump Station

1. Existing Water Supply Line and Storage Tank Already In-Place
2. The New Pump Station Will Serve the Immediate Countryside Area
3. The Site is Owned by the City
4. Many Computer Model Runs Confirmed this as the Best Location

New Pump Station Improves Flow, Reliability & Emergency Service

1. New Pump Station
   a. 5 MGD Capacity
   b. 2700 square feet
   c. 24 feet in Height
2. Existing Tank Information
   a. One 3-Million Gallon Tank (Zone1)
   b. 6-8 feet Above Ground
   c. 20 feet sidewall height
   d. 160.5 feet in Diameter
   e. New Coating to be a Tan Shade

The Project Includes Many Site Enhancements

1. Building Style to Blend with Neighborhood
2. Landscaping Improvements – Curb Appeal
3. Drainage Improvements
4. Proper Access for Operations & Maintenance
5. Minimal Impacts to Lake Views
6. High-Grade Sound Attenuating Generator Enclosure and Pump Station Equipment

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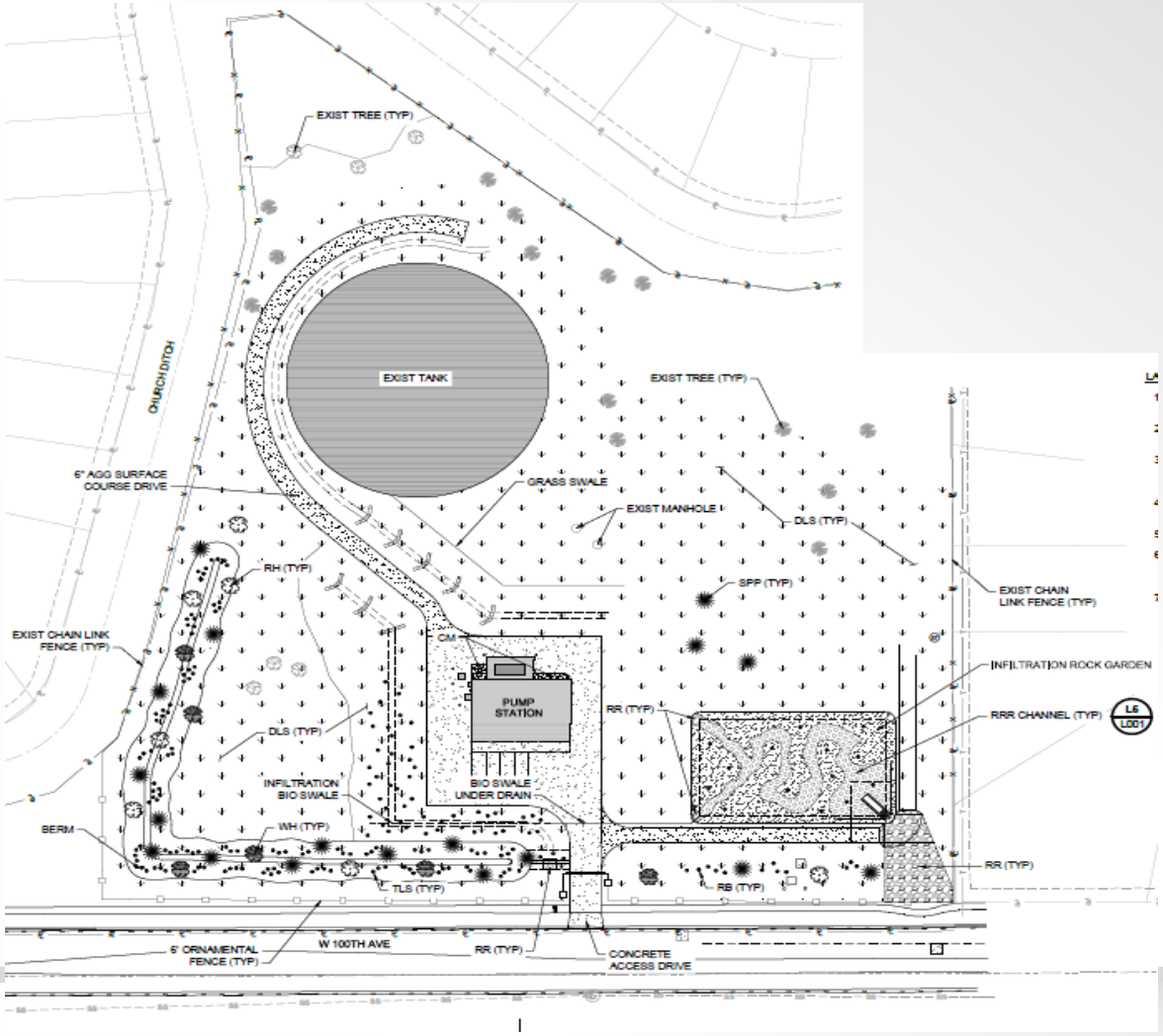
New Landscaping Adds Berms, Shrubs and Over 30 Trees



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Proposed Site Plan

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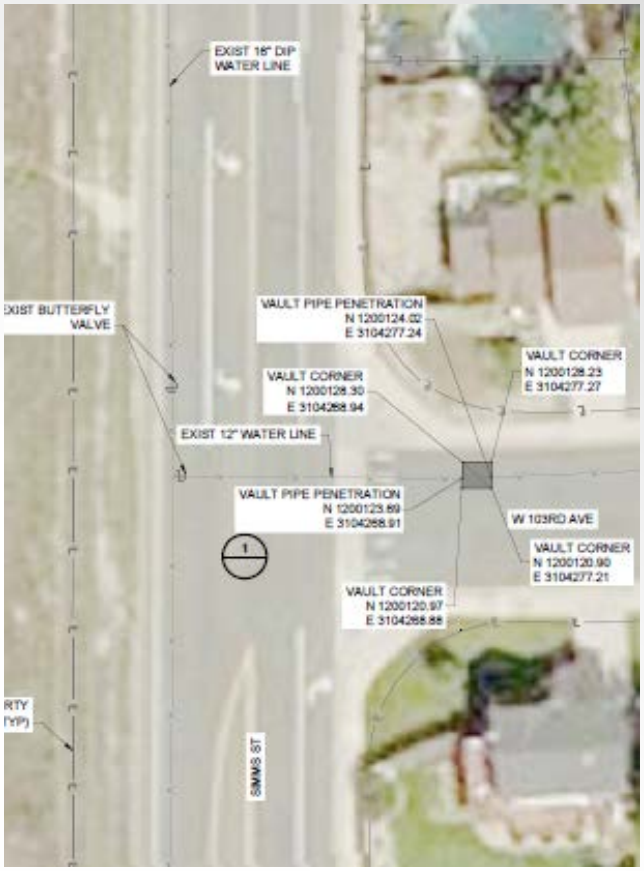
The Project Includes the Construction of a Valve Vault on 103rd Ave East of Simms St.

1. Will Help Reduce High and Low Pressure Surges in the Pipelines
   a. Fewer Pipe Breaks
   b. Less Maintenance
2. Construction will be Short Duration
3. Access will be Maintained



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Construction Precautions Intended to Minimize Disruption to You

1. Hiring a Specialty Contractor with High Qualifications for This Type of Work
2. Restricting Work Times
   a. Work hours typically M-F 7am-5pm to limit impact of equipment operation and noise.
   b. Sequencing to Minimize Service Disruptions
3. Controlling Noise and Dust
4. Monitoring Wind Speed
5. Keeping Site Clean

The Project Benefits Westminster and Your Neighborhood

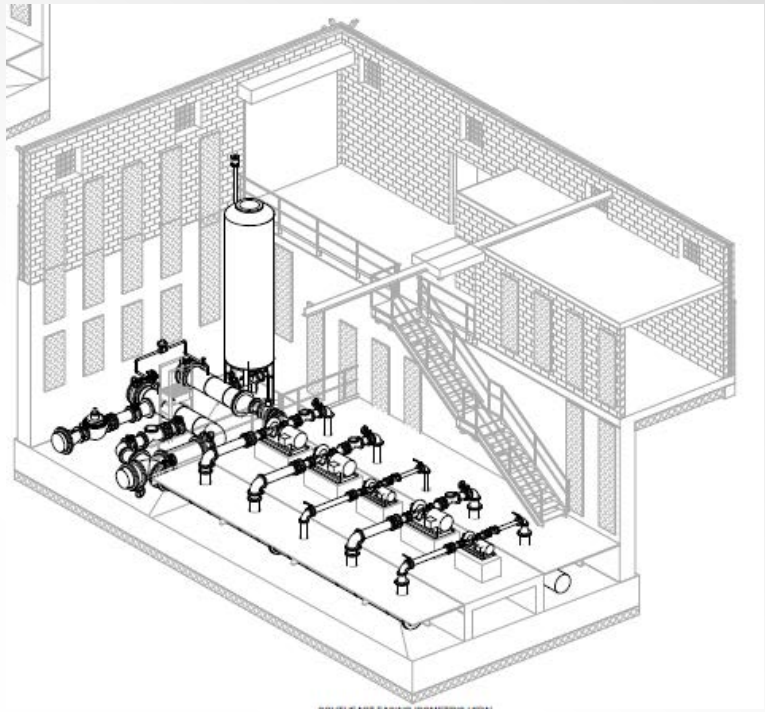
- Enhances the “Curb Appeal” of the Site
- Provides Aesthetic Landscaping and Security Fencing
- Improves Site Drainage
- Addresses Aging Infrastructure
- Maintains Water Quality
- Utilizes Quiet Mechanical Equipment
- Maintains Staff Access from 100th Avenue
- Less Frequent Major Maintenance
- Provides Better System Pressure Management

The Project Follows the Standard City Site Development Process

1. Received City Official Development Plan Approval
2. Will Obtain all Required City, County and State Permits

Countryside Pump Station Construction Is Targeted Near-Term

- Design has Been Completed
- Advertise for Bids Soon
- Construction Period is Estimated to be 14-16 Months
- Total Project Budget is $10Million



Questions

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