



STEP UP
YOUR GAME



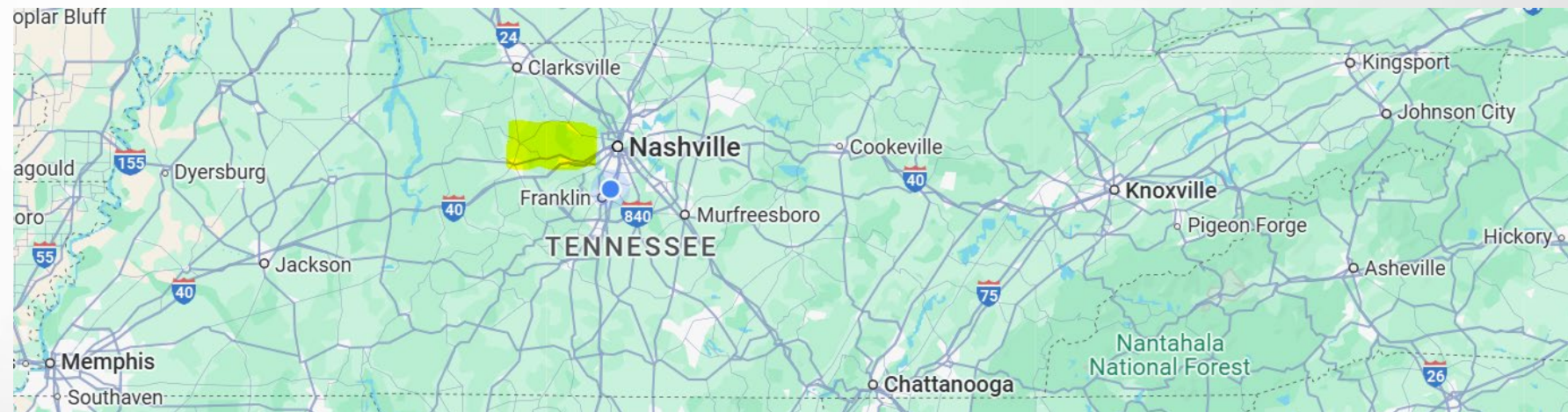
More Isn't Always More: A case study in providing more value with fewer services

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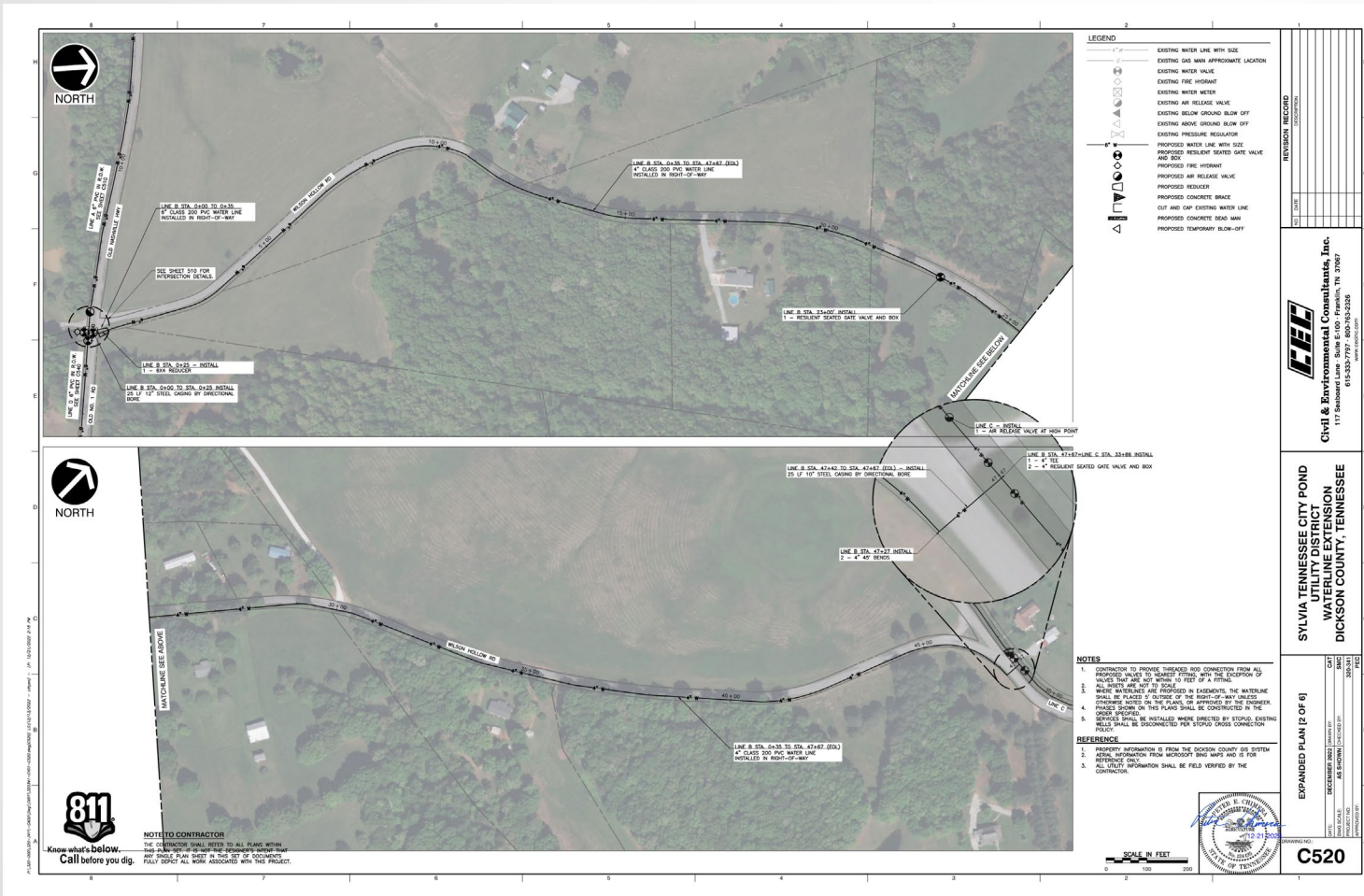


Client Background

- Sylvia Tennessee-City Pond Utility District
 - Water Utility in Suburban/Rural Middle Tennessee
 - Most waterline extensions/replacements are done by staff
 - Working relationship going back to 2021
 - First waterline extension in mid to late 2022



Typical Waterline Extension Plans



- Very detailed
- Includes blow ups
- Specifies pieces and parts
- Multiple sheets to flip through for necessary information



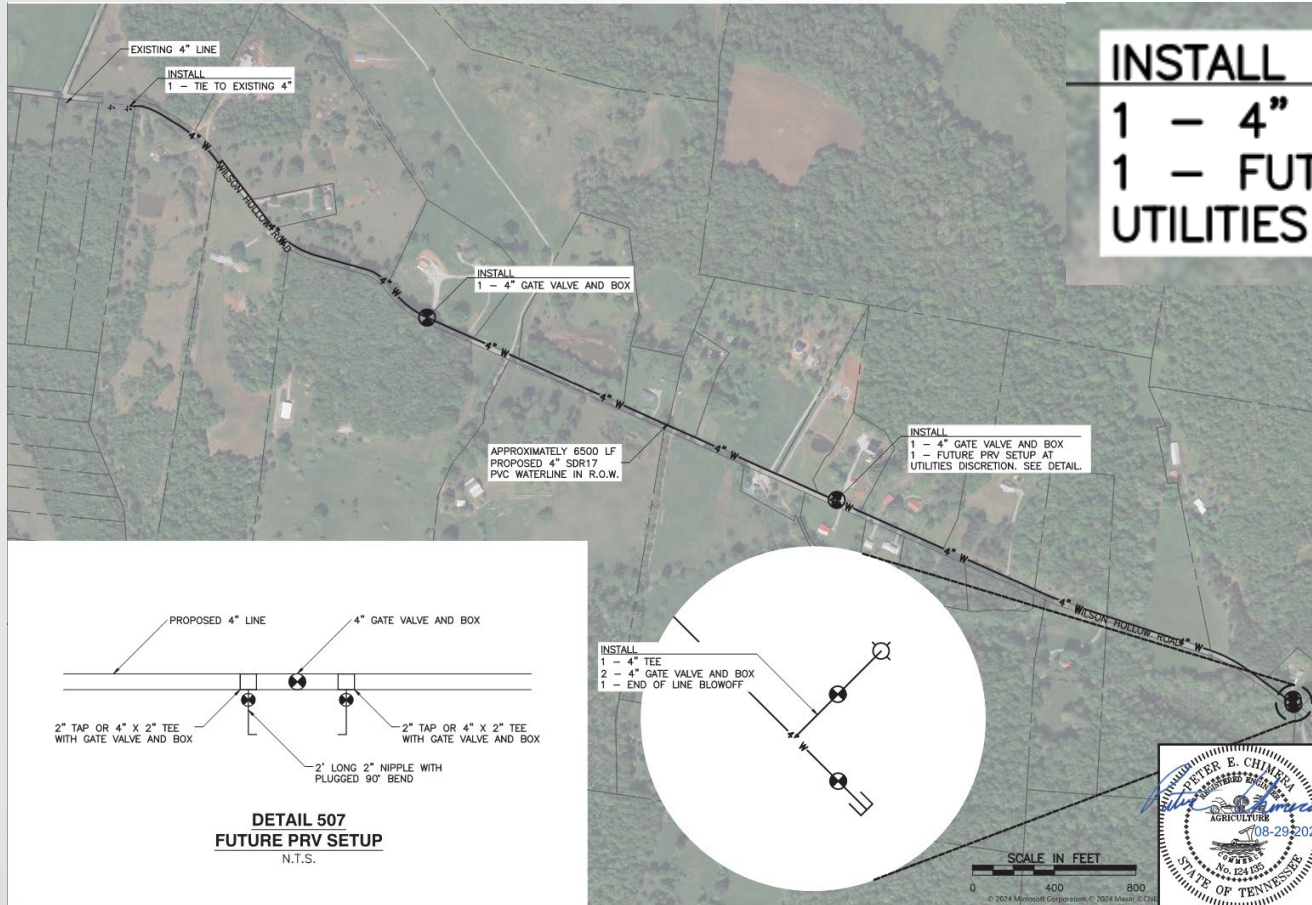
What does the client **NEED**

- TDEC(AHJ) approval
- Construction Plans
 - Waterline Location, appurtenances, and sizing.
- Calculations showing it will work.

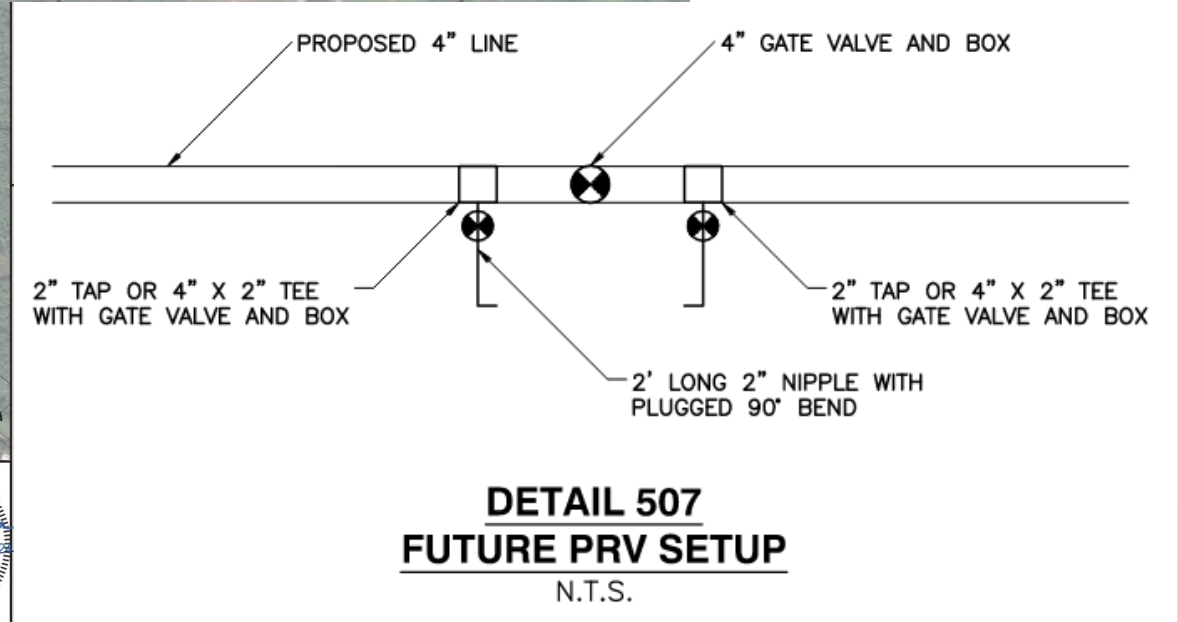
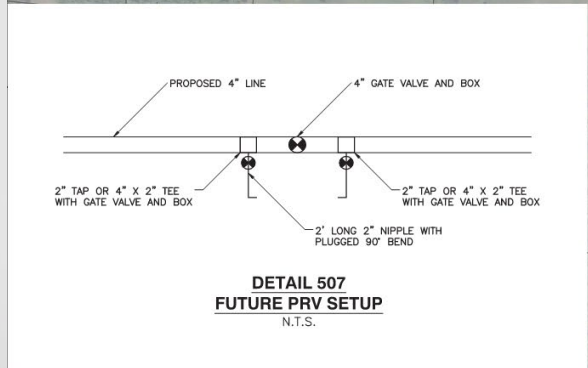
Will less be Acceptable? Approvable?

- It was important for me to discuss what the client needs, and what regulators will require.
- Since this approach was unconventional, I got client approval before proceeding.

What's on the plans



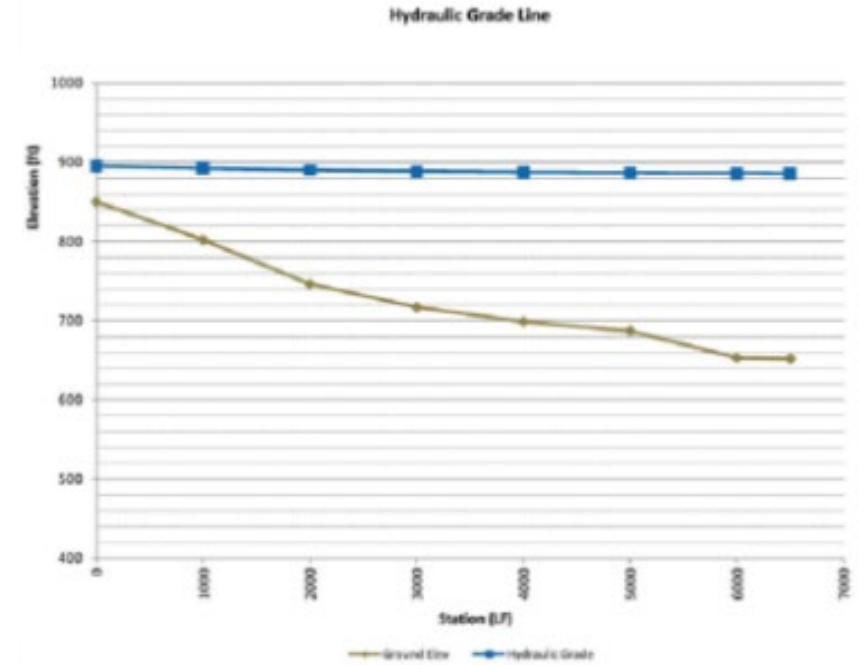
INSTALL
 1 - 4" GATE VALVE AND BOX
 1 - FUTURE PRV SETUP AT UTILITIES DISCRETION. SEE DETAIL.



Calculations

CALCULATIONS

1. FLOW TEST INFORMATION:
 - WILSON HOLLOW ROAD;
 - STATIC: 70 PSI
 - RESIDUAL: 60 PSI
 - FLOW: 25 GPM
2. DEMAND INFORMATION
 - 2.1. 10 NEW CUSTOMERS, POTENTIAL TO SERVE 20 ADDITIONAL. MAXIMUM FLOW=60 GPM
3. SEE HYDRAULIC GRADE LINE, AND CALCULATED PRESSURES, THIS SHEET.
4. THE WATER SYSTEM HAS ADEQUATE CAPACITY TO SERVE THIS WATERLINE ADDITION.
5. STATIC HYDRAULIC GRADE IS 1065, LOW POINT OF LINE IS 652. MAX STATIC PRESSURE IS 413 FEET OF HEAD OR 174 PSI. USE CLASS 250 PIPE.



Sta.	C 130		Q (gpm)	Diameter (in)	Head Loss (ft)	Hydraulic Grade (ft MSL)	Pressure		Customers	Notes
	Ground Elev (ft MSL)						ft	psi		
0	850		60.00	4	2.92	895.09	45	20		
1000	802		52.00	4	2.24	892.17	90	39	4	
2000	746		44.00	4	1.64	889.94	144	62	4	
3000	717		36.00	4	1.13	888.29	171	74	4	
4000	699		28.00	4	0.71	887.16	188	81	4	Future PRV
5000	687		20.00	4	0.38	886.45	199	86	4	
6000	653		10.00	4	0.05	886.07	233	101	5	
6500	652		-			886.01	234	101	5	

Results

- **Reduced timeline** allowed our client to complete more projects and add more customers.
- **Simple** plans are easier to follow
- **Saved our client** about **\$40,000** in just 8 projects
- Of the \$18,400 in total fees, **\$11,400** were recognized as **write ups**
- **Client trust/relationship building.**

Presenter

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QUESTIONS?