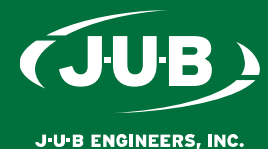


WORKING HAND IN HAND: **Getting Developer Buy-In for a City Owned & Operated Pump Station**

Zachary Wright & Pat Everham
PNWS-AWWA Conference
May 2014



Overview

- Objectives
- Service area & Existing conditions
- Planning
- Project approach
- Current project status
- Lessons learned

Objectives

- Planned development on undeveloped hill requires new water service
- Isolated, closed-loop pressure zone
- Closed Loop-Provide additional reliability & redundancy measures for service area

Service Area & Existing Conditions

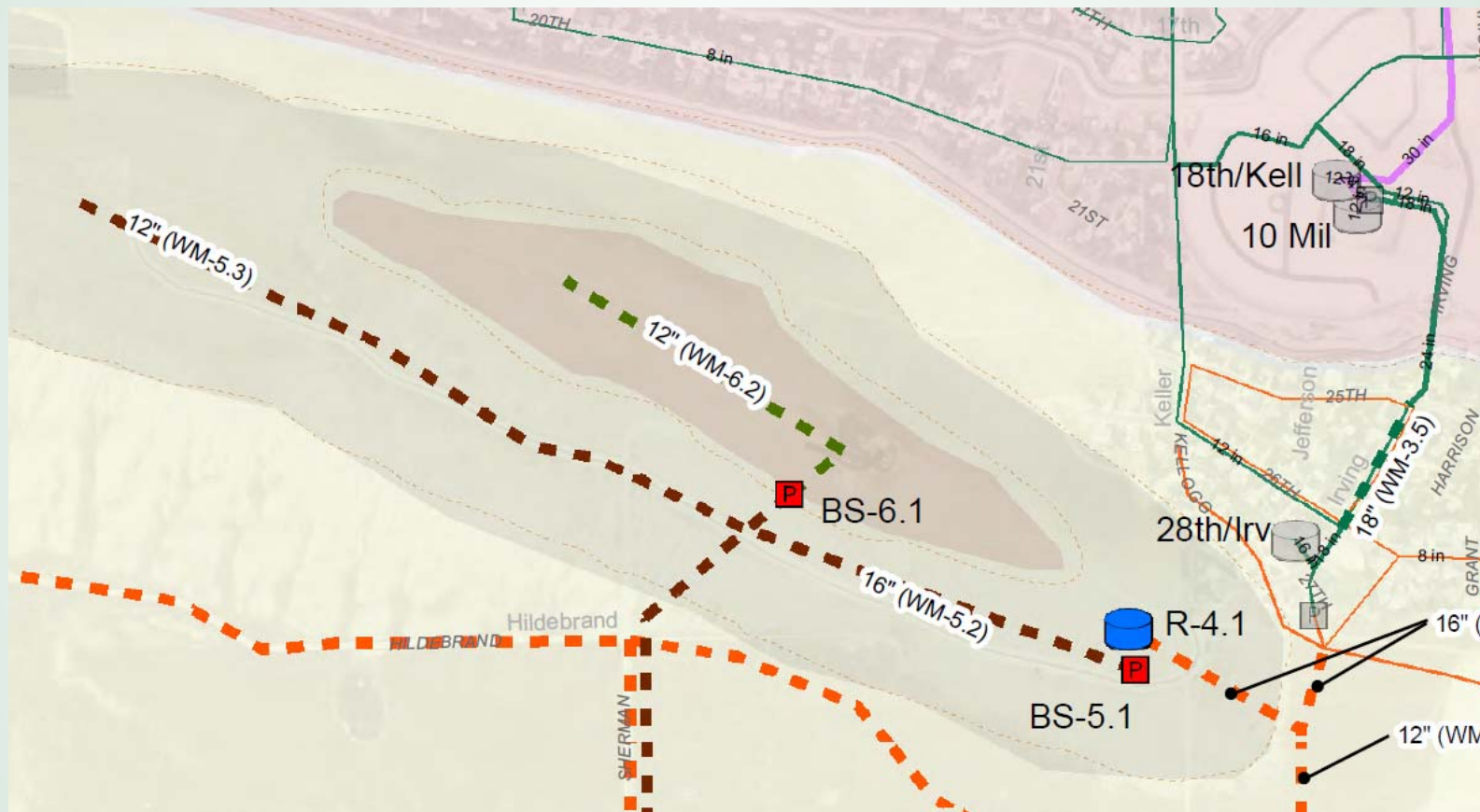
Service Area



Thompson Hill

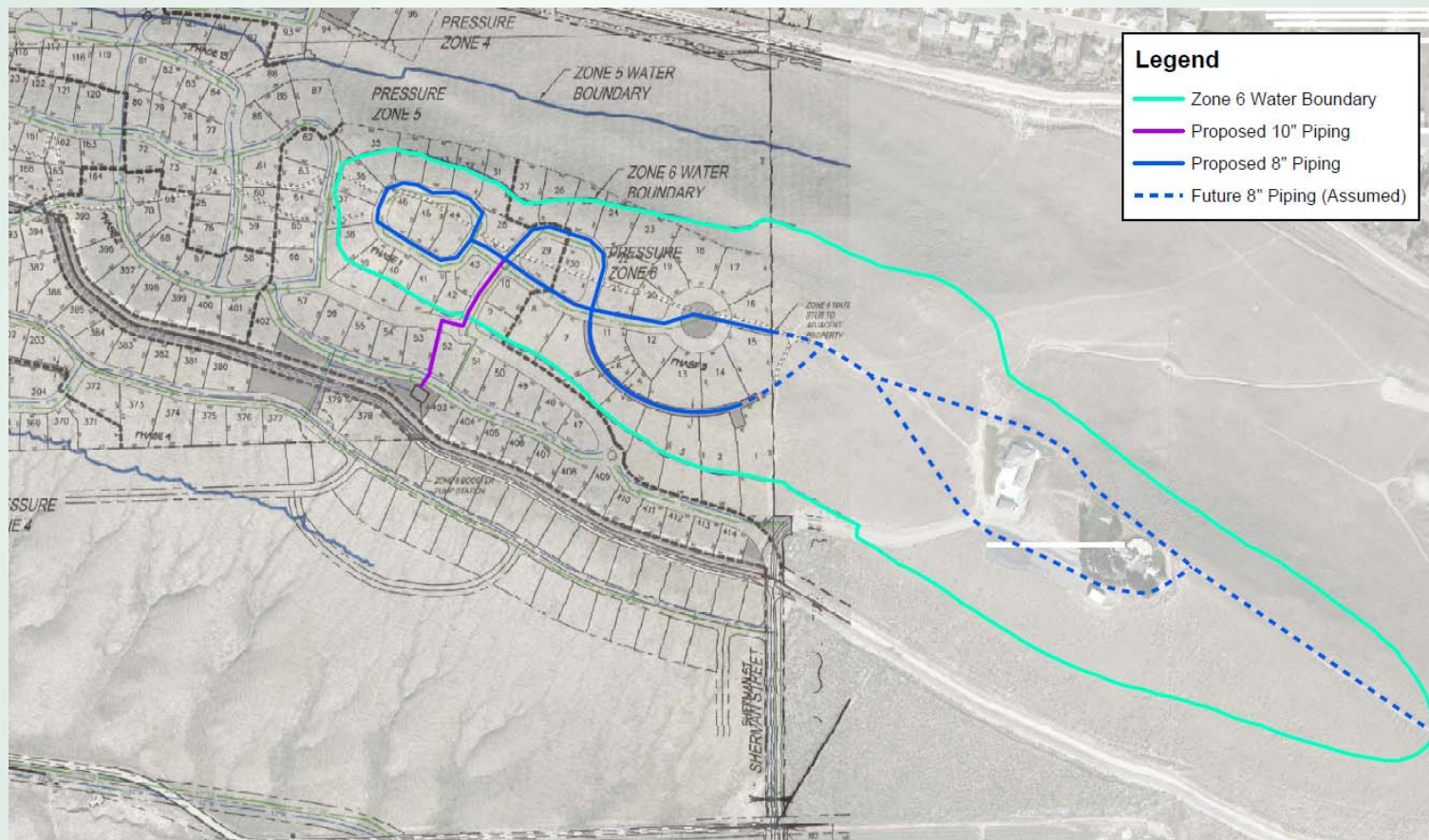
- South Kennewick
- 57 acres with 7 land owners
- Sage brush & native grass with limited development
- Low density residential (4 du/ac)
- Steep slopes, therefore only 2.5 du/ac (140-145 total homes)
- Non-irrigable

Service Area



Thompson Hill Pressure Zone 6 (el 940 to 1070)

Service Area



- 185 ac Planned Res. Development with 414 homes
- 46 homes in Zone 6

Existing Conditions

- 1.0 MG Zone 5 Supply - 3 miles away



Planning

Booster Station Design - Developer Concept

- Packaged system
- Compact footprint
- Outdoor location
- Limited Capacity
- Concealed

Planning

Key O&M Features

- Vehicle access
- Pump access
- Pipe alignment
- Sample faucets
- Chlorination-analyzer & future on-site gen.
- AC for electrical room
- Backup power – standby generator

Planning

30% Design Memo Identifies

- Zone 6 - 0-5 years vs build-out
- Domestic & irrigation use
- Residential fire flow (1,000 gpm)
- Source redundancy
- Chlorine residual
- Reliability

Planning

Concerns

- Responsibility to the public to preserve water quality & water supply
- Ease of maintenance
- Redundancy

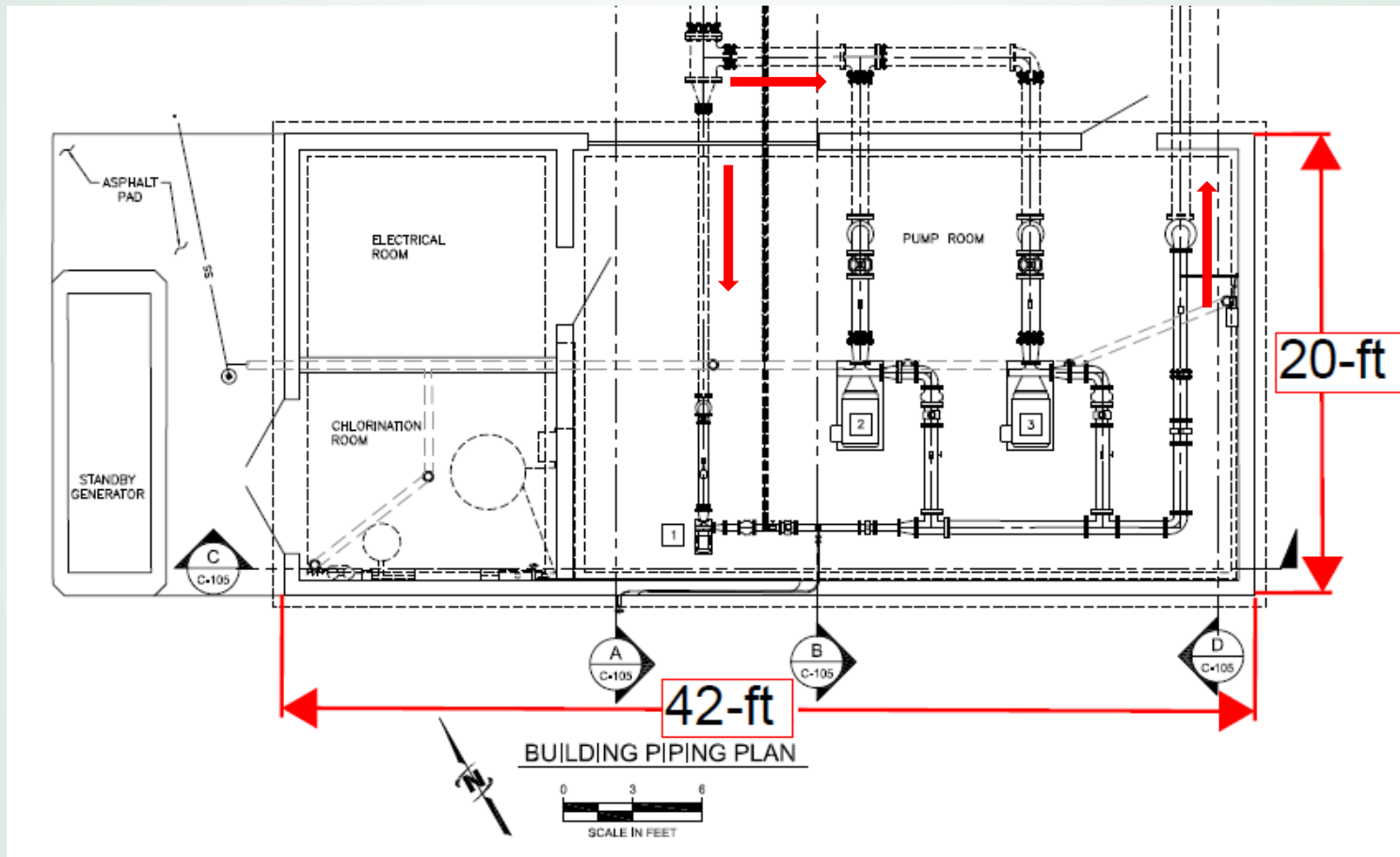
Project Approach

Project Approach

Station Size & Layout

- Serve all of Zone 6-Thompson Hill
- Meet PHD conditions with largest pump out of service (WA state code)
- Min. 30psi during PHD (WA state code)
- Min. 30psi during FF at all services (City municipal code)
- One small jockey pump & two large pumps
- Small pump-meets winter flows, Large pump-meets summer flows

Project Approach



Kennewick Standard Booster Station Layout

Project Approach

Design Review with Developer

- Design memo
- Review meetings
- Agreement

Developers Agreement

Developers Agreement

Agreement Highlights

- City to build standard booster station
- Latecomers agreement
- Developer will pay for upgrades

Developers Agreement

Exterior Features

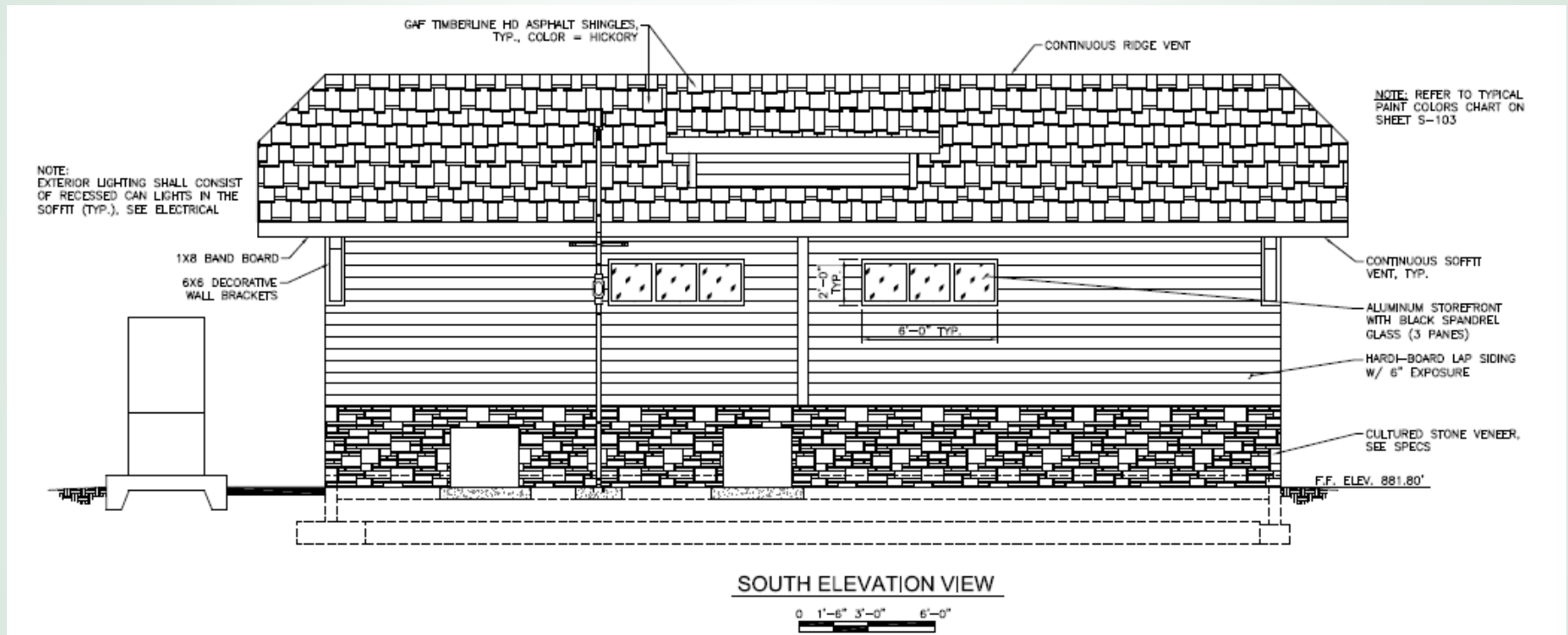
- Wood framed
- Composite shingles
- Dormers
- Stone veneer
- Spandrel glass
- Entrance gate

Project Status

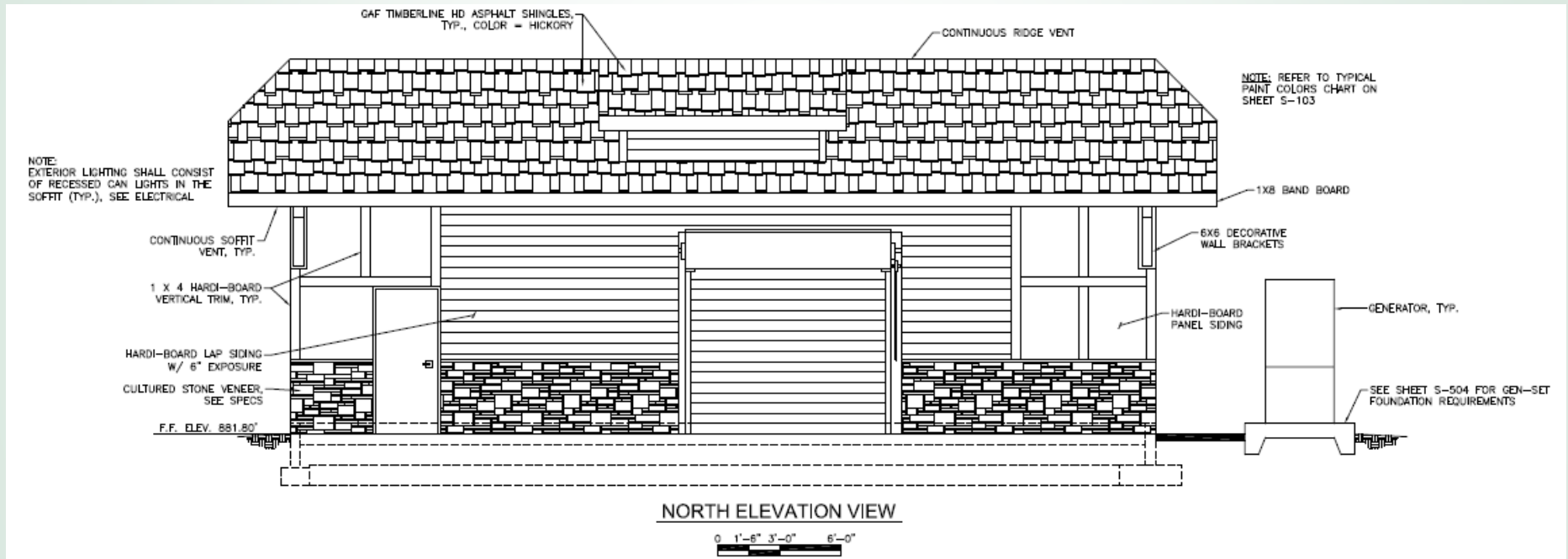
Project Status



Project Status



Project Status



Lessons Learned

Lessons Learned

- Important facility features successfully incorporated by developer, engineer and city staff working together
- Educating & involving the developer early in the project

Questions?

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