

# Ohme Substation Update

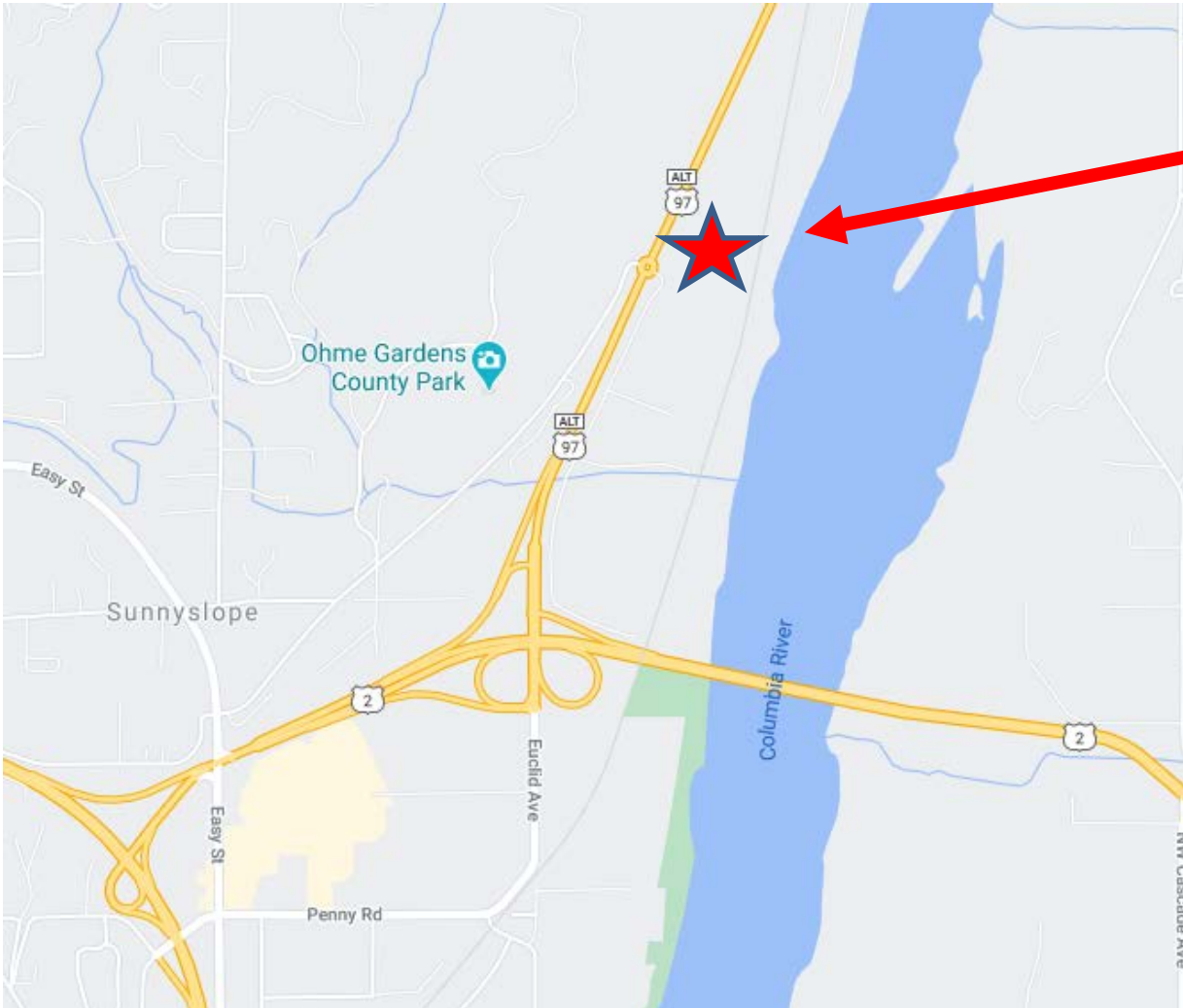
Budgetary Board Action Request

Sept. 8, 2020

Some figures have been rounded for discussion throughout



# Substation Purpose



## Ohme Project Site

Purpose:

1. Replaces Olds Station Substation
2. Increases capacity by 28MW

# Budget Request

- Design and procurement are finalized
- Project estimate is re-informed and expected to exceed authorization level
- Revised budget increased 17% or \$1.04M.
- Requesting motion to increase project budget

# Increase Breakdown

- Construction contract increase estimated \$945k
  - Increase in grounding system due to soil resistance
  - Higher than estimate escalation from 2012-2015 contracts
  - Increase in construction labor for double bank
- Increase in staff labor to support \$73k
- Temporary power and staging \$23k

# Project Budget Background

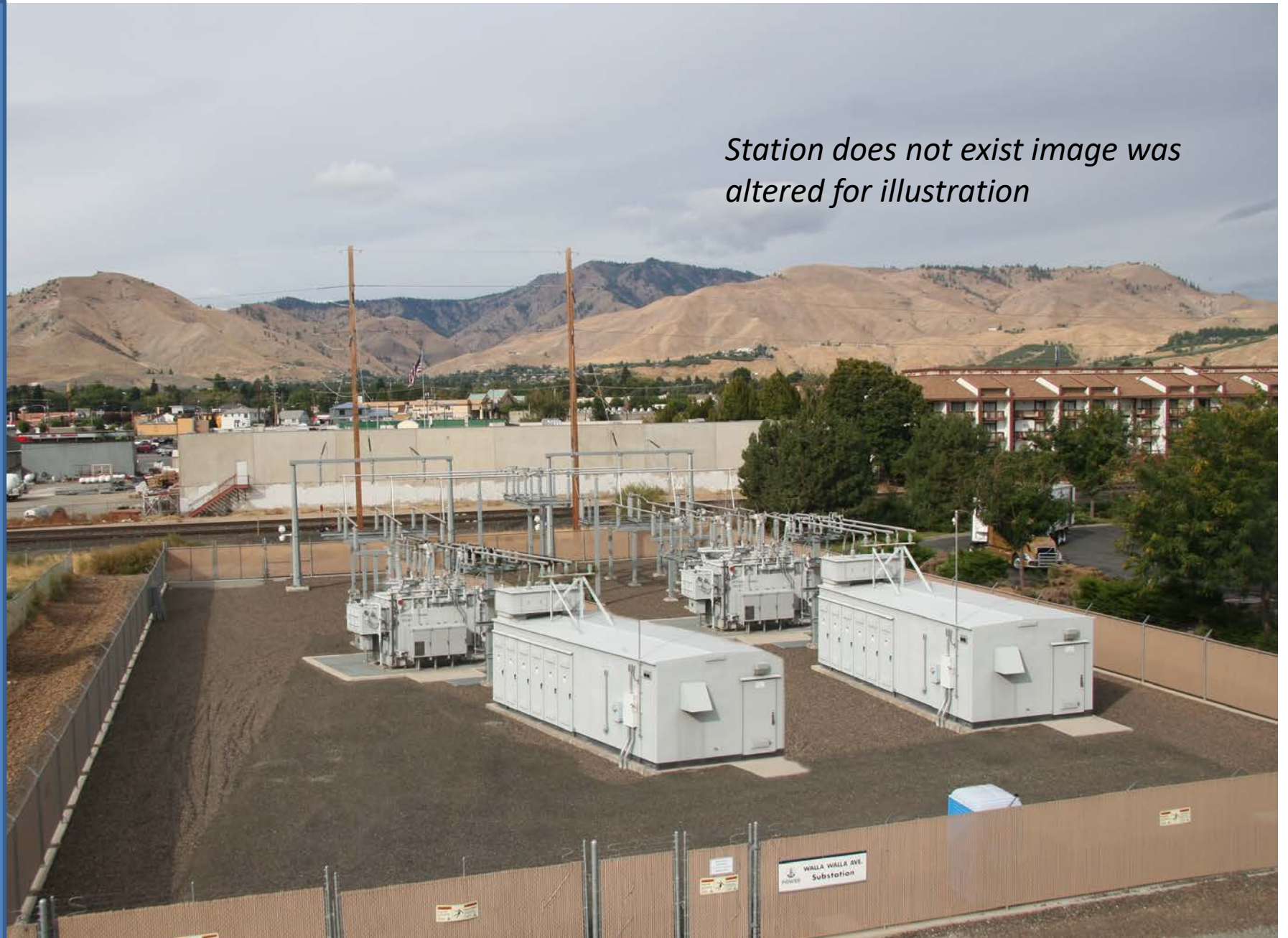
- Moved from single to double bank in March 2019
- Additional property purchased to accommodate in April 2019
- Budget estimate was then increased from \$3.7M to \$5.9M.
- Revised project estimated at \$7M

# New Substation Standard Arrangement

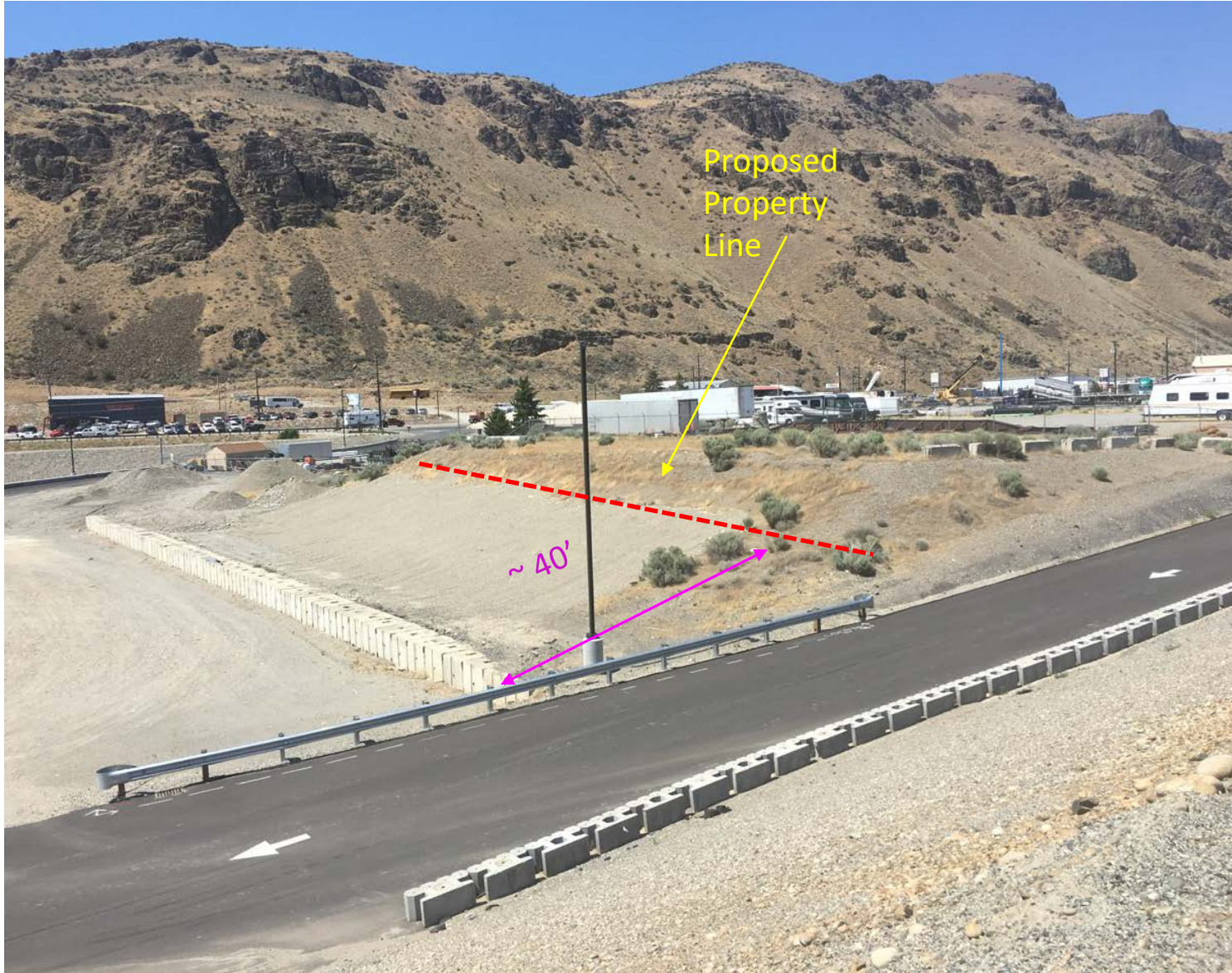
(2 Acres)  
300Ft. X 300Ft.

- Meets current NESC & IEEE Standards
- Improved access for mobile substation
- Allows substation capacity to double from 28MW to 56MW within same footprint
- Reduces need for future substation properties
- Improved reliability

*Station does not exist image was altered for illustration*







# Site Increased April 2019



# Ohme Substation Status



Aug. 27, 2020



# Construction Schedule

- Permitting or CUP expected Sept. 11
- Construction contract award Sept. 28 or before
- Notice to proceed follows 10 days from award
- Foundations 10 weeks from award (Thanksgiving)
- End of year concrete work complete by Dec. 18
- Switchgear March 15, 2021
- Construction complete May
- Commission, testing and energize July

# Acceleration Gains

*Original plan had Ohme energize 2020*

- New standard drove significant changes
- Power transformer - multiple unit contract
- General arrangement complete and property purchased
- Lessons learned on critical path items
- All contracts, cost estimates, designs, etc. are repeatable

# Lessons Learned Double Bank

- Construction contract nearly double
- Increases in engineering
- Economy of scale closer to 20%
- Future station evaluated only if capacity required





# Motion Requested

Proposed motion: To increase the Total Project Budget for the Ohme Substation Project (DS170006) by \$1,040,000 for a revised Total Project Budget of \$6,969,053. The additional project expense is not anticipated until 2021, thus no change to the 2020 Distribution capital budget is required.

Possible move this motion to Sept. 21<sup>st</sup> without project delay

Questions?