

Burns Engineering provided engineering for the Design/Build bridging documents for the relocation of the existing Washington Street Substation to enable development of the existing Powerhouse building site. The scope included evaluating three candidate target locations and scoping the mechanical, electrical, plumbing and fire protection work required.

Project elements included 26.4kV utility service and customer 26.4kV distribution (replacing outdoor substation with exposed bus and oil circuit breakers with indoor 38kV class switchgear), 13.8kV and 480/277V distribution systems.

In addition, a standby generator, 650VDC traction power rectifiers and 25Hz signal power systems were included as part of the work. Burns also was required to design a compressed air system, associated cooling towers and house power and lighting.

Additional elements included survey and documentation of existing cabling, development of schemes to provide for cost and scoping of each alternative location. Coordination with site utility design engineers was required to ensure the best locations of new underground services and to coordinate with existing utilities, while maintaining physical separation to ensure integrity under all circumstances.

