

Featured Project

Frank Hagel Federal Building HVAC Renovations

Richmond, California

ArcSine Engineering performed field investigations, testing, studies, and designs for building-wide electrical and HVAC system upgrades. This mission-critical 500,000-square-foot facility houses all Social Security Administration (SSA) West Coast computing resources. The computer rooms, while not designated SCIF, were subject to strict standards set by the SSA. Prior to ArcSine's work, various failures and sub-par performance of electrical and HVAC systems resulted in low confidence by building management, and drew the attention of SSA leadership in Washington. ArcSine performed the following projects, working closely with building management and technical personnel to restore system reliability:

- Testing and debugging of building energy management systems.
- Assessing failure modes to uninterruptible power supplies, and testing.
- Power distribution load calculations and recommendations for corrective measures.
- Evaluation and design of a complete rehabilitation to the central computer room's cooling system. These systems had offered marginal performance since new and increased heating load resulted in unacceptable operating temperatures. ArcSine redesigned the chilled water circulating system and heat exchanging arrangement in the rooms, revising the majority of the infrastructure and avoiding costly replacements. The project includes design of the electrical, control, and piping conversion of 10 constant-speed chiller pumps to variable-speed operation.
- Testing of building fire and security systems.

Electrical
Mechanical
Fire Protection
Power Distribution
Construction Services

