

## Featured Project

### Oregon Ear, Nose, and Throat Surgery Center

Medford, Oregon

ArcSine Engineering provided mechanical/electrical engineering services for the construction of a two-story 18,000-square-foot Oregon Ear, Nose, and Throat Surgery Center located in Medford, Oregon. Oregon Ear, Nose and Throat has served the Rogue Valley since 1948. This building consists of the following types of spaces: (3) audio test booths, (5) procedure rooms, (10) exam rooms, (11) offices, (3) surgery preparation rooms, (2) surgery suites, dirty utility area, clean utility area, (7) recovery rooms, (3) nurse stations, and supporting areas. ArcSine Engineering was responsible for designing the following mechanical/electrical systems:

- Site utility coordination/design (Pacific Power, Qwest, Charter).
- Power distribution/lighting/communications design.
- Emergency lighting utilizing central inverter systems.
- Standby power design for life safety and critical branch circuits.
- Isolated power system design for surgical rooms.
- Nurse call system design.
- Specialized lighting design for exam, procedure, and surgical units.
- HVAC system design for all general areas.
- Specialized HVAC design for surgical rooms which consists of variable-frequency drives (VFDs), variable-air volume units (VAVs), humidity control units, MERV 15 air filters, and laminar flow with air curtain system.
- Plumbing, drain, and vent system design.
- Medical gas design consisting of nitrous oxide, oxygen, medical air, vacuum/waste anesthetic gas disposal (WAGD), medical air compressor, vacuum/WAGD pump and gas cylinders, and manifold design. System also included all monitoring alarms, two master panels, and multiple local panels.

Electrical  
Mechanical  
Plumbing  
Lighting  
Power Distribution  
Medical Gases  
Standby Power  
Water/Wastewater  
Water/Wastewater

