

## **Tripler Army Medical Center**

**Honolulu, Hawaii**



Tripler Army Medical Center is the largest military medical treatment facility in the Pacific Basin with a history that goes back to 1898. Stretching over 375 acre, it is the only Army medical center in the Pacific and is currently serving active-duty service members of all branches of service; their eligible families; military-eligible retirees and their families; veterans; and many Pacific Island Nation residents.

Tripler is a teaching hospital that provides graduate education programs in medicine, general surgery, otolaryngology, orthopedic surgery, psychiatry, pediatrics, obstetrics and gynecology, radiology, pathology, urology, oral surgery, hospital administration and anesthesiology nursing.

As a Principal Mechanical Engineer, Tony Ngo provided mechanical design for various projects at the medical center. Sample of some projects are listed below:



### **ECM-2: Replace Air Handling Units Project**

Provide mechanical design documents for the replacement of five air-handling units serving Wing G of the hospital. Existing air handlers located in the roof mechanical room were replaced with the following new more energy efficient features:

- Premium efficiency fan motor
- Direct Digital Control
- Variable Speed Drive Volume Controls
- Night Set Back
- CO2 Sensors

### **ECM-4: Replacement of Domestic & Reheat Hot Water Systems Heat Pump Project**

This project involved consulting service to provide mechanical design document to add a new heat pump water heating system for the Domestic Hot Water (DHW) and HVAC Reheat Water (RHW) systems. This new system will replace two Diesel Steam Boilers supplying Domestic Hot Water and two heat pumps providing

HVAC Reheat Water. The new water heating system will provide energy savings, improved reliability, reduced central plant air emissions, and lower operation and maintenance requirements. This system will include two new 67-ton return and expanded backup water heating systems