University of North Carolina at Pembroke - Health Science Building

34% Energy Reduction Compared to Baseline
$67,463 Energy Savings in 2013 Compared to Baseline

PROJECT DETAILS
LOCATION…………………… Pembroke, NC
CONSTRUCTION TYPE………………. New Construction
BUILDING TYPE…………………… Classroom / Lab Building
OWNER…………………………….. University of North Carolina at Pembroke
BUILDING AREA…………………… 87,593 Enclosed SF
BUILDING CODE OR STANDARD….. ASHRAE 90.1-2007

DESIGN TEAM
ARCHITECT………………………… Walter Robbs Callahan & Pierce Architects, PA
ENGINEER………………………… McKnight Smith Ward Griffin Engineers, Inc.
COMMISSIONING AGENT………… Affiliated Engineers, Inc.

CONTACT
Owner: W. Steve Martin, AIA, steve.martin@uncp.edu
Architect: Larry Robbs, AIA, robbs@walterrobbs.com
### Project Description

- Building HVAC primary cooling system consists of a water-cooled chiller and cooling tower.
- Variable-primary pumping is utilized at the chiller to distribute chilled water to the secondary systems.
- Heating system consists of two condensing gas boilers.
- Modular air handling units with heating coils, cooling coils and variable speed fans are utilized for the secondary systems.
- Variable-secondary pumping is used to distribute hot water.
- Demand control ventilation through CO₂ sensors is utilized at each AHU system.
- An airflow monitoring station is used at unit AH-3 to maintain required pressurization at the lab rooms.