

Clemson University Advanced Material Research Laboratory

Anderson, SC



PROJECT INFORMATION

Project Cost: \$18.5 Million

Size: 111,270 square feet

Project Delivery Method: Design-Bid-Build

Construction: Completed July 2004

Stories: Two

Function: Research Laboratory

Occupancy: Offices, Research Laboratories,
Cleanroom, Conferencing

PROJECT TEAM

Owner: Clemson University

GC: Manhattan Construction Company

Architect: IDC Architects

Interior Designer: IDC Architects

Civil Engineer: IDC Architects

Structural Engineer: IDC Architects

MEP Engineer: IDC Architects

Landscape: Arbor Engineering

ARCHITECTURE

Modern exterior including brick and metal galvalume panels with a Kynar finish

Interior walls are gypsum drywall finish

Uses clearstory daylighting for laboratories

LIGHTING/ELECTRICAL

480Y/277V, 3 Φ , 4W service from (1) 2500 kVA transformer, (5) 30-112 kVA transformers

to 208Y/120V, 3 Φ , 4W service

(1) 300 kW stand-by generator

Various lighting including fluorescent, drop-lighting, and wall washers

STRUCTURAL

Steel frame with steel truss

1st floor SOG with isolation for vibration

2nd floor concrete on metal deck

Braced frames for seismic vibrations

MECHANICAL

(2) 3,348 MBH gas fired boilers

(1) 4,094 MBH electric boiler

(3) 750 gpm, 266.6 ton chillers

(2) 1,125 gpm, 375 ton cooling towers

(15) AHU units ranging from 1,000-11,300 cfm

VAV boxes in lobby and office spaces

(4) MAH units ranging from 6,800-20,650 cfm



DAVID ANDERSON

MECHANICAL OPTION

[HTTP://WWW.ARCH.E.PSU.EDU/THESIS/EPORTFOLIO/2007/PORTFOLIOS/DJA173/INDEX.HTM](http://www.arche.psu.edu/thesis/eportfolio/2007/portfolios/dja173/index.htm)

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ARCHITECTURAL ENGINEERING