

ENVIROCENTER PHASE II

JESSUP, MARYLAND

CHRIS LORENZ | MECHANICAL OPTION | <http://www.engr.psu.edu/ae/thesis/portfolios/2012/CSL5049/index.html>

GENERAL INFORMATION

OWNER - ENVIRONMENTAL DESIGN
AND RESOURCE CENTER
ARCHITECT - ASG, INC.
ENGINEERS - JDB ENGINEERING INC.
CONTRACTOR - FORRESTER CONSTRUCTION
DESIGN-BID-BUILD
SIZE - 24,000 SF

MEP SYSTEMS

MECHANICAL SYSTEM
13, 500 CFM VAV AIR COOLING
SLAB, MASS WALL RADIANT HEATING
NATURAL VENTILATION
EARTH TUBES PRE-TREAT SUPPLY AIR
REVERSIBLE GROUND SOURCE HEAT PUMP

ELECTRICAL / LIGHTING SYSTEMS
ROOF-TOP SOLAR ARRAY
ENERGY EFFICIENT LED AND
HID LIGHTING

PLUMBING SYSTEM
COMPOSTING URINALS AND TOILETS
RAIN WATER STORAGE

STRUCTURAL SYSTEM

SUBSTRUCTURE - CAST IN PLACE CONCRETE,
CMUs
SUPER STRUCTURE - STRUCTURAL STEEL FRAME,
AND CONCRETE SLABS.

SUSTAINABILITY

GOAL:
LEED PLATINUM RATING

SUSTAINABILITY FEATURES
LOW EMISSIVITY WINDOWS
GREEN ROOF
THERMAL MASS WALL
ATRIUM GREENHOUSE
GEOTHERMAL HEAT PUMP
SOLAR ARRAY
RAIN WATER SELECTION
EARTH TUBES
COMPOSTING TOILETS AND URINALS

