

LORD
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SARGENT

SCIENCE & TECHNOLOGY



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S&T PRACTICE AREA

Lord Aeck Sargent's Science & Technology practice area strives to create environments that enhance interaction and collaboration while maintaining the highest attainable level of design, technology and safety.



Lord Aeck Sargent is an award-winning architecture and laboratory planning firm specializing in the programming and design of complex scientific research and teaching environments. We are known for responsive, creative solutions to complex projects—projects engaging an interactive approach between the owner, architect and engineers. In the past 15 years alone, the firm has completed millions of square feet of laboratory space and is nationally recognized for its leadership in the design of innovative science facilities. We combine our design talent with advanced technology to integrate the environment with the people and equipment requirements. Each design is a specific response to the Client's unique approach to research, philosophy and context. Our projects go far beyond the basic technical requirements; the firm's designs become appropriate environments in which to work, as well as strong assets with which to recruit the best employees.



“The Biodesign Institute is one of the best in lab design and functionality. This is one of the largest scientific projects ever undertaken in this country.”

Michael Crow, PhD
President
Arizona State University

02

ACADEMIC RESEARCH



Academic research facilities encompass an exciting array of buildings and environments to house and support a diverse range of research endeavors. While the nature of work that takes place within these buildings varies significantly, common to each is the need to establish highly collaborative, interdisciplinary settings within a technologically sophisticated yet flexible framework—one that will adapt and evolve as initiatives and equipment needs change over time.

Equally important to the design of an academic research building is the establishment of a physical setting that creates a sense of place by utilizing interior and exterior social spaces to foster meaningful interaction. Our academic research buildings balance research efficiency with a strong sense of community—providing vibrant settings for exploration and discovery and buildings that both capture and celebrate the importance and excitement of the scientific work that takes place.



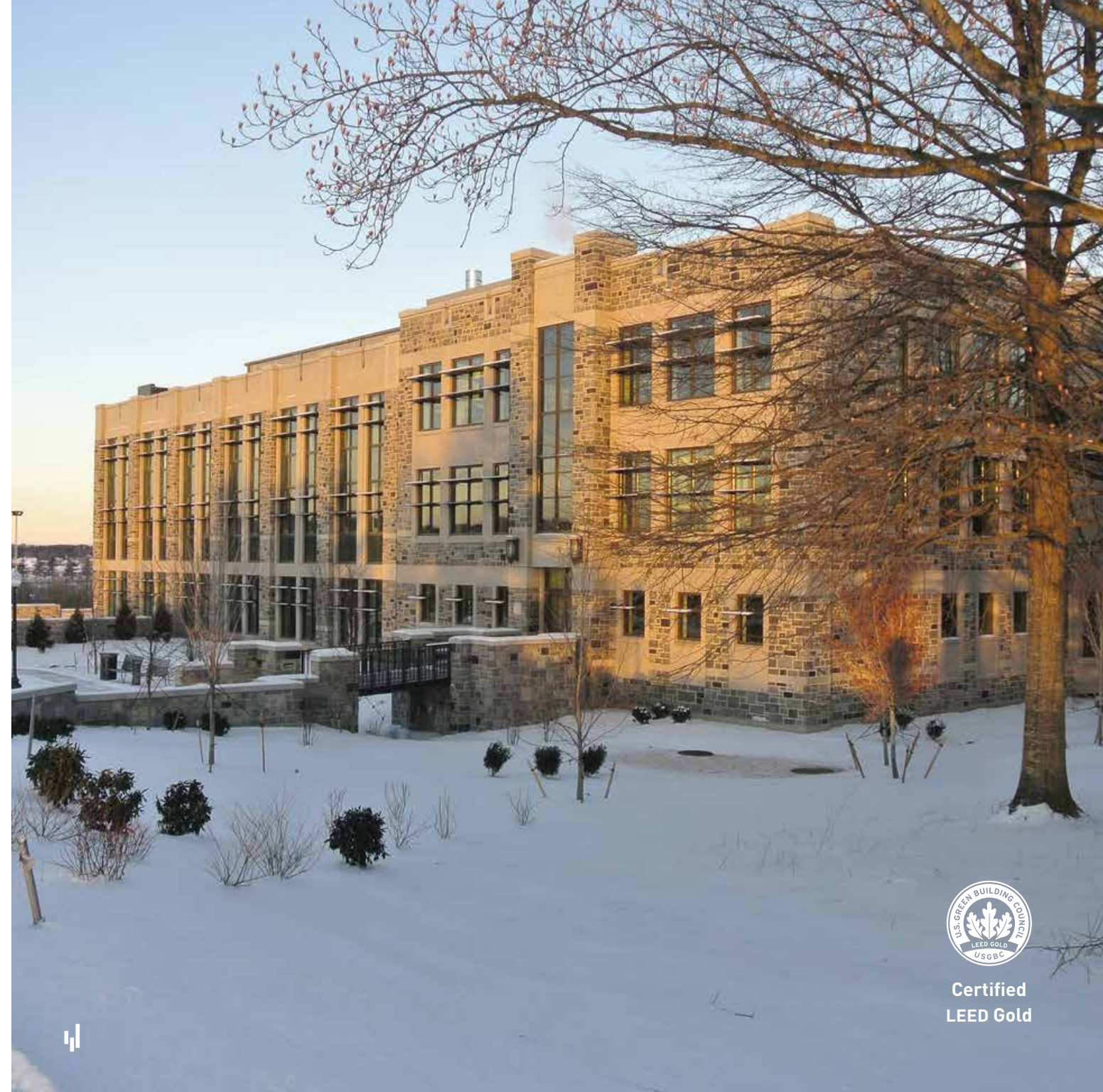
HUMAN AND AGRICULTURAL BIOSCIENCES BUILDING 1

Virginia Tech
Blacksburg, VA



As the first building in an LAS designed master plan, the Human and Agricultural Biosciences Building 1 (HABB1) launches a new research focused precinct on the edge of the existing Virginia Tech campus. The full precinct envisions a series of four buildings to include new research laboratories and pilot plant/scale-up facilities. In addition, the site includes a state-of-the-art Plant Growth Center, a Parking Structure and a Central Utility Plant.

HABB1 houses research facilities for the departments of Biological Systems Engineering and Food Sciences Technology. Spaces include office, administrative, laboratory and support facilities focused on a wide range of microbiological and biochemical research, including food safety, sensory/flavor testing, food processing, and biofuel cells development. Facilities also include flexible pilot plant spaces for use in the development of scale-up operations and process/packaging engineering systems.



Certified
LEED Gold

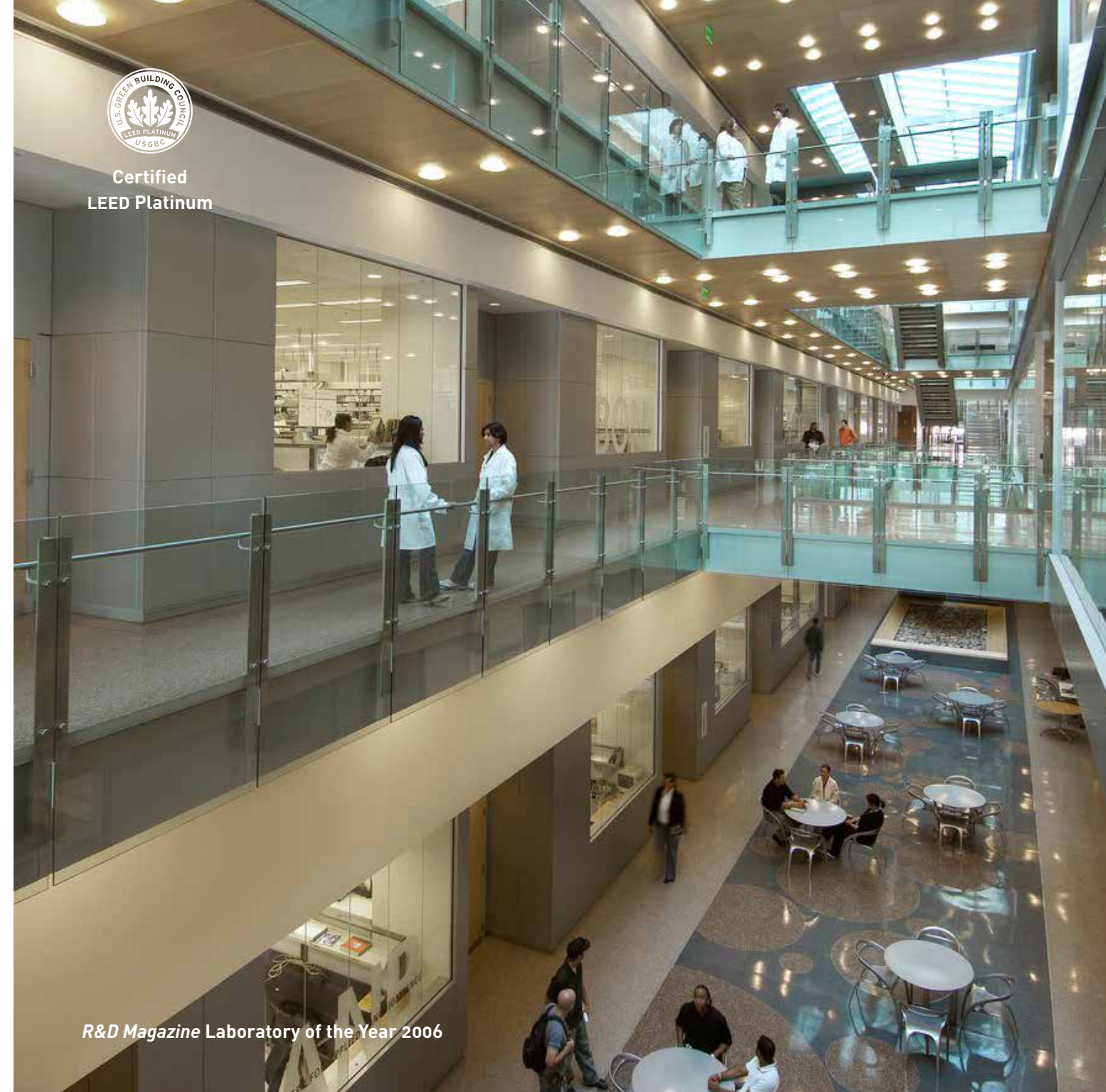
THE BIODESIGN INSTITUTE BUILDINGS A & B

Arizona State University
Tempe, AZ



The Biodesign Institute at Arizona State University is designed and built to meet the most stringent demands posed by experimental research. It is flexible to allow for rapid reconfiguration of space and equipment to meet the changing needs of the scientific programs. Simultaneously, the values of communication, collaboration and connection reverberate throughout the building.

Lab, office and conference spaces surround an open, light filled atrium encouraging interaction at every level—between buildings, floors and people with large glass walls bringing the research activities directly out for viewing. The Institute features a broad range of green design features including water-conserving site elements, a high performance building envelope, and highly-efficient engineering systems. This project was completed in collaboration with Gould Evans Associates.



Certified
LEED Platinum

R&D Magazine Laboratory of the Year 2006

SCIENCE & ENGINEERING COMPLEX - PHASES 3 & 4

University of Alabama at Tuscaloosa
Tuscaloosa, AL



Phase 3, the South Engineering Research Center, provides the University with unique research and educational spaces for several Departments within the College of Engineering. The facility includes high-bay research, testing and teaching spaces for a variety of purposes, including large-scale structural analysis, structural materials testing, electromechanical device development, and an automotive engine testing center including a full chassis dynamometer. This project was completed in collaboration with Davis Architects.

Phase 4, the North Engineering Research Center, supports the College of Engineering by providing state-of-the-art materials characterization research and teaching components. The building houses flexible research spaces for a wide range of material, electronics and specialized equipment needs. Also included is a fully operational clean room. This project was completed in collaboration with Williams Blackstock Architects.



MICHIGAN MEMORIAL PHOENIX LAB

University of Michigan
Ann Arbor, MI



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LEED Gold



The renovation and expansion of the Phoenix Memorial Laboratory Building, originally built in 1955 as a three-story nuclear energy research facility, supports multi-disciplinary energy research at the University of Michigan campus.

Phase 1 includes the renovation of the 3rd floor for Fuel Cell Research and has provided for extensive building systems and infrastructure upgrades.

Phase 2 includes the renovation of the 2nd floor for Michigan Energy Institute to house battery and energy chemistry research and contains a 10,000 SF expansion of laboratory and lab support space.



With a focus on the design of packaging, including graphics, innovations in prototyping and package manufacturing, the Harris A. Smith Building is a showcase for Clemson students to display and promote their designs. The building houses various production laboratories related to material science, graphic communications and prototyping. Abundant and strategically placed glass allows for views into the interior equipment and research spaces as well as the surrounding campus environment.

Lord Aeck Sargent performed the energy modeling, daylighting analysis and LEED administration. Sustainable features include optimized daylighting and solar control design, water-efficient fixtures, and low-emitting building finishes. This project was completed in collaboration with Michael Keeshen & Associates.



HARRIS A. SMITH BUILDING FOR PACKAGING & GRAPHICS

Clemson University
Clemson, SC



Certified
LEED Gold



“This building is a truly stunning work place. As exciting as the state-of-the-art nanofabrication, imaging and other laboratory resources are, it is the building’s design that will, in the long run, create magic.”

Dinesh Patel, Chairman
USTAR Government Authority

03

BIOMEDICAL RESEARCH



At the core of biomedical research is the drive to accelerate the evolution of scientific discovery into beneficial applications. The planning and design of these buildings should support interdisciplinary, team-based research—encouraging collaboration and meaningful interaction through spaces that foster a sense of place for the research community. Technology is integral to research, and it is essential that these buildings provide for the integration of current and future technologies to

support sophisticated computational research and equipment and to seamlessly interconnect the research, academic and clinical environments. Relationships and connectivity between the traditional wet bench, lab workstations, lab support, faculty office and computational spaces are evolving. Greater transparency between these functions creates dynamic new relationships and synergies between activities—enhancing interaction and efficiency within the research environment.

JAMES LEVOY SORENSON MOLECULAR BIOTECHNOLOGY BUILDING

A USTAR Innovation Center, University of Utah
Salt Lake City, UT



The 205,000 gross square foot Sorenson Molecular Biotechnology Building is designed to support collaborative Biomedical and Neuroscience research and promote the growth of new businesses in these fields in the State of Utah. Housing 24 principal research investigators and their support staff, the facility consists of research laboratory space, supporting core facilities, offices, conference facilities, and public areas designed to encourage maximum interaction of research staff

from diverse disciplines. Core research facilities in the building include Optical Imaging, Small Animal Imaging, a multi-species Vivarium and a Nanofabrication Cleanroom facility.

Research spaces will accommodate future growth and change, and sustainable, resource-conserving features have been applied throughout. The siting, orientation and design of the building provide for abundant daylight environments and views of the nearby Wasatch Mountains.



MARGARET M. ALKEK BUILDING FOR BIOMEDICAL RESEARCH

Baylor College of Medicine
Houston, TX

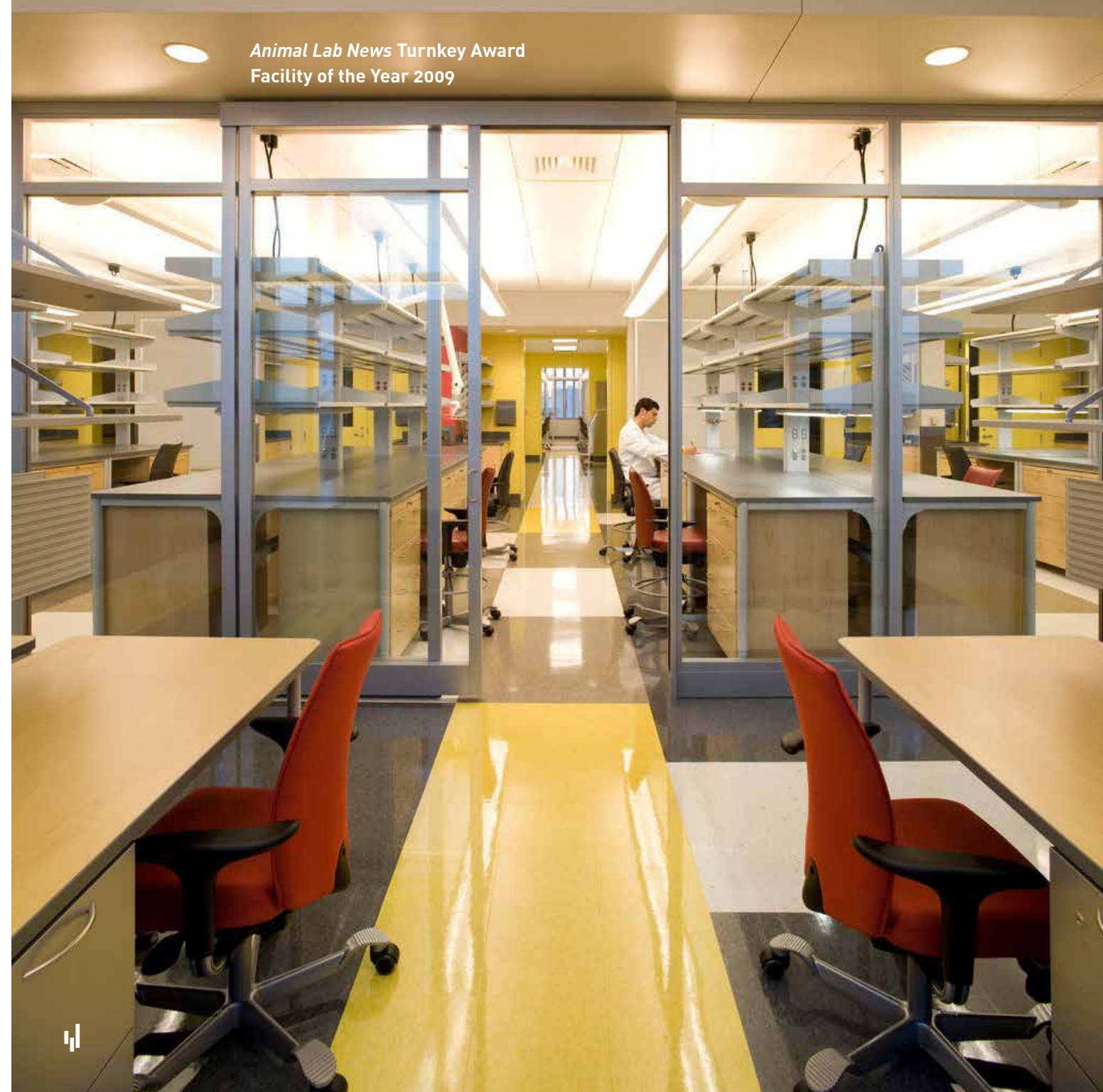


The Alkek Building for Biomedical Research features five stories of laboratory space and a two-story, cutting-edge vivarium. The building facilitates research for a variety of interdisciplinary programs, including cardiovascular sciences, diabetes, cancer, pharmacogenomics, proteomics, and genomics and plays a major role in recruitments efforts for the College.

Design features, such as open labs and extensive use of interior glass, greatly enhance flexibility and collaboration. The design of the building recolonizes the importance of computational and dry analytical areas within interdisciplinary research and incorporates space for these activities into each laboratory module. This space is created immediately adjacent to the wet labs, separated by a glass partition, to allow researchers a high-quality work environment for their computational activities yet convenient access and visual connectivity to their laboratories.



*Animal Lab News Turnkey Award
Facility of the Year 2009*



GENETIC MEDICINE BUILDING

University of North Carolina
Chapel Hill, NC



The Genetic Medicine Building stands as a significant addition to the university's south medical school campus and provides a primary component in the medical center's expanding research facilities. This 340,000 SF building provides extensive state-of-the-art wet and dry lab functions, office areas, and support space for genetics, pharmacology, and a wide variety of other life-sciences based research.

The seven-story building includes two floors dedicated to animal housing and research and five floors of flexible laboratories and support spaces. Transparency throughout the facility and carefully considered circulation enhance collaboration amongst the various departments occupying the facility. A centralized atrium organizes the building's large floor-plate, provides sky-lit space for movement between floors and promotes casual, informal interaction.



MEB 2ND FLOOR LAB RENOVATION & RESEARCH CORE CONSOLIDATION

Morehouse School of Medicine
Atlanta, GA



Certified
LEED Silver



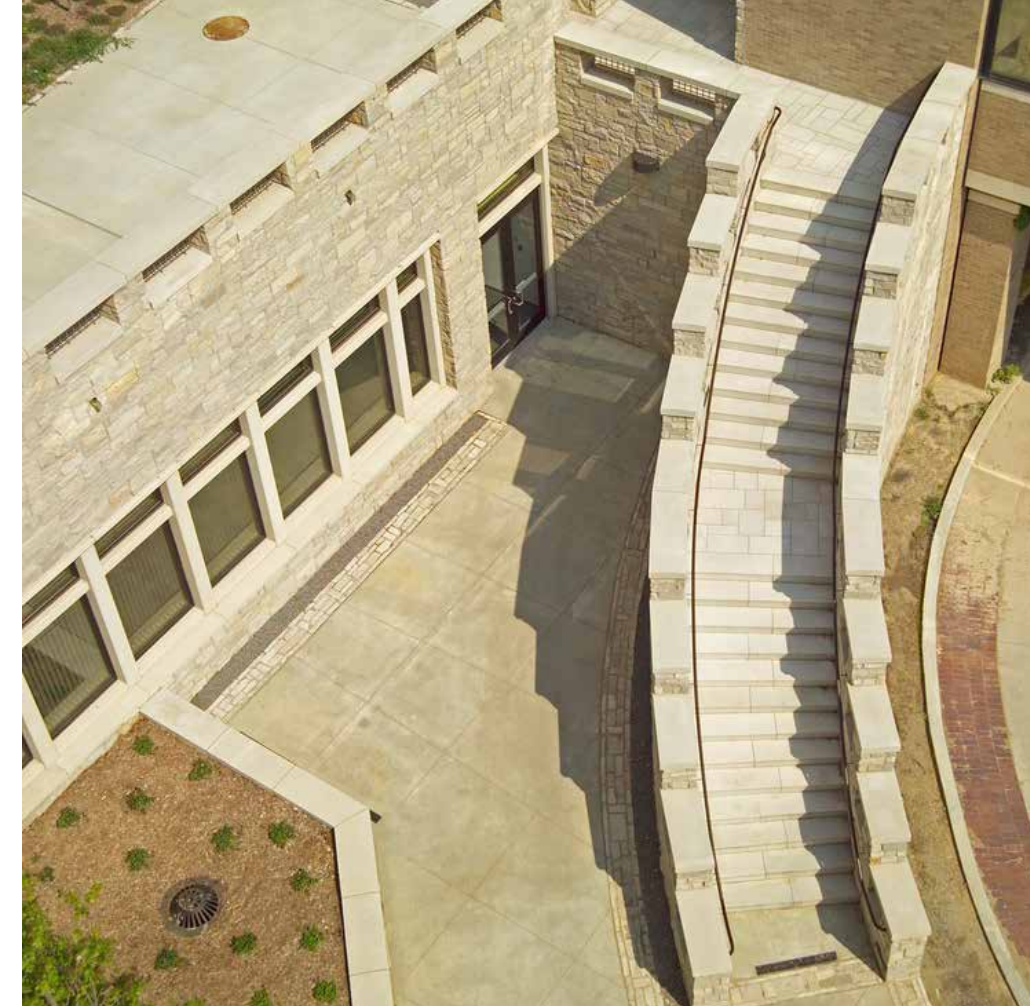
The essence of this renovation is the establishment of a centralized facility for the co-location of Core functions and shared-use research and equipment spaces for the Morehouse School of Medicine. Consolidation of these elements provides a significant increase in the operational efficiency of the Core and enhancements for data output and sample analysis operations.

The large laboratory provides a flexible and open space that fosters cross-pollination of ideas and sharing of resources. Direct access to natural daylight is accomplished through a glass wall, separating the laboratory and the adjacent write-up spaces. Support facilities include a centralized sterilization/glasswash suite, a variety of shared instrumentation spaces, and a large, climate-controlled equipment room for monitored research freezers and refrigerators.



The Cyclotron Addition at the University of Michigan replaces existing production facilities for PETtrace radiochemistry (radio pharmaceuticals) which are used in both clinical and research applications. In addition to various research labs and support spaces, the facility includes a shielded cyclotron vault housing two GE, 16.5 MeV cyclotrons to create radioisotopes which are mixed in shielded hot cells, then transported pneumatically to the nearby hospital.

The sub-grade facility was developed within an exiting courtyard space and includes a rooftop garden plaza.



CYCLOTRON BUILDING ADDITION

University of Michigan Medical School
Ann Arbor, MI



“This new building
will dramatically
change the way we
deliver education for
these disciplines.”

Randall Peters, PhD
President
Southern Crescent Technical College

04

MEDICAL EDUCATION



Medical education facilities must create environments that enable student-centered, experiential teaching and learning. Evolving trends in medical education have distinct spatial and technological consequences. Collaborative problem-based curricula with active, interdisciplinary, team-based learning and integrated simulation require flexible but interactive physical settings. Integration of technology is essential, as these buildings must take full advantage

of the latest AV, conferencing, simulation, distance-learning and information visualization capabilities.

At LAS we believe our buildings should be active participants in the learning experience—dynamic and engaging, uplifting, and fostering a collaborative spirit amongst students and faculty while allowing for changing needs over time.

COLLEGE OF DENTAL MEDICINE

Georgia Regents University
Augusta, GA



The College of Dental Medicine at Georgia Regent's University is designed to translate the College's educational strategies and mission into more open and adaptable spaces for teaching, research and patient care. The project incorporates a wide array of research and practice labs to support an equally diverse range of dental associated programs. Notable features include junior, senior and faculty practice clinics, and a variety of simulation facilities. The building supports residency programs in numerous

disciplines including orthodontics, pediatric dentistry, aesthetic dentistry, periodontics, AEGD/GPR, prosthodontics, oral maxillofacial surgery, and endodontics.

The location and design of the building allow for significant community engagement for treatment and to support the educational initiatives. Also included are full clinical and research support amenities, faculty offices, administrative space and a variety of both formal and informal learning areas.



Certified
LEED Silver



BURNETT-WOMACK CLINICAL SCIENCES BUILDING

University of North Carolina
Chapel Hill, NC



The renovation of the Burnett-Womack Clinical Sciences Building is centered around creating large, open laboratories to promote interdisciplinary research, providing state-of-the-art instructional spaces for healthcare training, and upgrading the facility to current code and laboratory standards.

A key element in the renovation is a Clinical Skills Center providing 15 fully functional examination rooms in which to conduct hands-on teaching and training.

With an audio-visual monitoring room, a 30-person classroom, and a Human Patient Simulation Lab, the Center can house multiple teaching and assessment exercises simultaneously.

Improvements also include: upgrades to make the building universally accessible; enlarging existing and adding new windows to allow more access to natural light; and, a new 3,000 SF BSL-3 laboratory on the top floor.



INSTITUTE OF IMAGING SCIENCE & CENTRALIZED VIVARIUM

Vanderbilt University
Nashville, TN



The Vanderbilt Institute of Imaging Science (VUIIS) is a multi-disciplinary initiative charged with developing new and enhanced imaging techniques for use in biological and medical research, training and diagnostics. Essential to achieving these goals, this project consists of a 46,000 SF, five-story Imaging Center housing several large state-of-the-art magnets being used for both clinical and research applications.

The project also includes a 55,000 SF multi species vivarium, housing four floors of animals (from rodents to non-human

primates), and one floor of gross anatomy labs and offices. Each of the animal floors is focused on a specialized purpose, including a transgenic barrier and a neurosciences behavioral suite.

In addition to addressing the myriad environmental issues associated with sensitive imaging instrumentation, the project successfully integrates technology and advanced audio-visual systems into the teaching and research spaces. Also notable in the design is the seamless integration of the new building into a dense, urban campus context.



MEDICAL TECHNOLOGY BUILDING

Southern Crescent Technical College
Griffin, GA

The Medical Technology Building brings student-centered, active learning laboratories and classrooms as well as informal student learning spaces previously not available at the campus. The project includes learning environments with state-of-the-art technology and equipment for orthopedic and physical therapy, radiation technology, paramedics, home care, dental hygiene, surgical tech, nursing, medical assisting, pharmacy, respiratory therapy, and phlebotomy.

In conformance with the campus master plan also prepared by LAS, the building introduces a new architectural image for the Southern Crescent Campus. With long east and west facades mandated by a need for street-front visibility, glazing quantities, geometry and shading devices help control unwanted western sun glare and heat gain.



The St. Joseph's Pre-Clinical Research Facility utilizes multiple species, including large animals and rodents, in research and training activities associated with cardiovascular and orthopedic health.

The large protocol area located in the center of the facility includes two "state-of-the-art" surgical suites with separate preparation and recovery areas. The surgery unit also has a dedicated robotics suite that is used for training of physicians with advanced cardiovascular surgical robots.

The facility also includes microbiological laboratories, a simulation suite with training areas for new simulation mannequins and devices, and administrative space.



PRE-CLINICAL RESEARCH FACILITY

St. Joseph's Research Institute
Atlanta, GA



“This project advances under-graduate science education by creating a facility that encourages interdisciplinary research and learning yet has flexibility to adopt new innovative approaches to teaching and research.”

Susan Martin
President
Eastern Michigan University

05

STEM EDUCATION



Achieving excellence in the STEM disciplines is essential to the continued strength of our nation as a leader and innovator in the increasingly competitive worldwide market. As such, STEM buildings are increasingly becoming more important for their power to captivate and inspire these student learners that are so essential to future success. Long overlooked and marginalized on academic campus settings, STEM buildings are now frequently front and

center in the development of campus plans as signature buildings intended to draw users and visitors alike to reveal and celebrate the excitement of the work taking place. These facilities mandate a robust and flexible infrastructure, and the successful integration of technology is essential—expanding and enabling the environment for learning beyond the classroom walls and into a wide variety of spaces and settings.

RHODES HALL BIOENGINEERING ANNEX

Clemson University
Clemson, SC



With a focus on biomaterials, biomechanics, cellular biology and their respective applications to medically-related issues, the Bioengineering program at Clemson University is one of the oldest bioengineering programs in the world. The Rhodes Hall Bioengineering Annex creates a laboratory-rich environment for learning and advancement that will enrich the science, research and educational goals of the University.

Key design features address existing site conditions related to scale, pedestrian circulation and building relationships, utilize daylight and respond to the campus master plan. The addition's main entry has become the gateway for the entire Bioengineering Complex.

Lord Aeck Sargent performed energy modeling and LEED administration for the project which is Gold Certified. This project was completed in collaboration with Michael Keeshen & Associates.



Certified
LEED Gold



MARK JEFFERSON SCIENCE COMPLEX

Eastern Michigan University
Ypsilanti, MI



The renovation and expansion of the existing science building is designed to form a cohesive complex that presents an exciting and innovative space to learn and teach science. The main entry leads into an atrium, which is designed to promote informal learning and interaction. Views from the space open into the teaching labs making the study of science visible to other students and visitors.

The placement and design of the new building addition create a new front door to the sciences at EMU. The addition also establishes a “center” for sciences and provides needed public space to promote interaction and collaboration amongst students, faculty and visitors.

To further promote science on display, the atrium highlights a 50-student planetarium and exhibit spaces for the departments of biology, chemistry, geology, geography and psychology.



Certified
LEED Gold



SCHOOL OF SCIENCE & ENGINEERING

University of West Florida
Pensacola, FL



Through the sharing of its science spaces with the community, the New Science & Technology Complex creates a “state-of-the-science” space in which teams of scientists, engineers, and mathematicians work fluidly in a highly interdisciplinary manner.

The complex accommodates learning spaces that have undergraduate research embedded into the more formal research programs, as well as the discovery- and active-learning based pedagogy that is found in the coursework at all levels. This requires flexible laboratory and

classroom design so that instrumentation and courseware can be changed as technologies advance and program needs change.

The project includes a host of cost effective, sustainable design strategies including a demonstration-scale photo-voltaic array and an evacuated tube solar hot water system. Lord Aeck Sargent managed the LEED Certification process, including energy modeling, for this project. This project was completed in collaboration with Caldwell Associates.



Certified
LEED Gold



GROSS HALL FOR INTERDISCIPLINARY INNOVATION

Duke University
Durham, NC

Lord Aeck Sargent has completed a series of phased renovations to the exiting Gross Hall. Originally abandoned and slated for demolition, these renovations have transformed the building into a vibrant community for interdisciplinary research and teaching and a new, multi-departmental "hub" in the heart of Duke's campus bringing together a diverse collection of schools and programs including Business, Public Policy, Law, and numerous departments within the School of Engineering.

Renovations have addressed a variety of space types, including numerous highly flexible, modular wet and dry research laboratories to support constantly changing and evolving research initiatives. Notable throughout is the attention that has been given to establishing highly-collaborative, formal and informal social spaces.



PEEPLER HALL

Dalton State College
Dalton, GA

In addition to general classroom space, Peeples Hall houses a variety of Biology and Chemistry teaching laboratories. It also incorporates a three-story "Activity Node", proposed by the Design Team, to address both campus needs and to solve site challenges.

The space is open 24 hours a day and has areas for group and individual study, informal learning and other amenities not previously offered at Dalton State.

The steep terrain of the site was exploited to create a "rampitheater" that serves as an outdoor classroom and provides an accessible route between the building and the central pedestrian spine of the campus.



RIEVESCHL HALL RENOVATIONS

University of Cincinnati
Cincinnati, OH

The Rieveschl Hall project is a phased renovation of an existing eight-story science building built in 1968.

The initial phase, completed in 2013, includes renovations to two floors for the Department of Biology. The scope of work includes 42,000 SF of teaching and research laboratories, offices, conference rooms, and meeting areas. Also included are substantial upgrades to the building existing engineering infrastructure.

A subsequent phase includes the renovation of 52,000 SF for chemistry and biology research laboratories, offices, conference rooms and meeting areas. Throughout the renovated areas a variety of user-focused informal collaborative areas have been incorporated. This project was completed in collaboration with GBBN Architects.



The James E. King Life Sciences Teaching and Research Center includes research labs, teaching labs, classrooms, offices and support space for the Biological Sciences Department at FSU. The teaching and research labs are modularly designed to support flexibility and adaptability as needs change over time.

In addition to the educational and research spaces, the project includes a multi-species vivarium and a centralized cagewash facility. Specialty labs include a BSL-3 suite, a core laser research facility, and a large greenhouse complex on the roof.

In addition to significantly enhancing the research and educational capabilities, the facility expands the University's ability to seek funded research. This project was completed in collaboration with Elliot Marshall Innes, P.A.



JAMES E. KING JR. LIFE SCIENCES TEACHING & RESEARCH CENTER

Florida State University
Tallahassee, FL



Certified
LEED Certified



“Thank you LAS for making this a very positive experience and for creating a wonderful new home for CSI to grow in.”

Heather Creran
President and CEO
Cytometry Specialists, Inc.

06

DIAGNOSTIC, TESTING AND R&D



Diagnostic, testing and R&D buildings—including corporate and government/public sector work—require an in-depth knowledge and understanding of the intensive process and equipment driven work that takes place within these facilities. A host of unique needs are frequently mandated by these projects, including extensive workflow coordination, aggressive and critical schedule parameters and enhanced safety and regulatory requirements. LAS

has extensive experience and knowledge of the planning and design of these spaces, and we work hand-in-hand with our diagnostic, testing and R&D clients to consistently deliver buildings that not only successfully address functional needs but provide safe and inspiring environments that support their emerging and evolving process, equipment and research needs long into the future.



NOVELIS RESEARCH & DEVELOPMENT CENTER

Novelis
Kennesaw, GA



This new international R&D headquarters for Novelis, which specializes in the recycling and rolling of aluminum products, included pilot testing labs, material testing facilities, and numerous analytical instrumentation and characterization spaces. In addition to offices and amenity spaces, the project included several sophisticated and audio/visual-rich display and conferencing facilities to support and promote the facility as the worldwide hub of corporate research and development activity.

The project brought together within a single facility a wide variety of testing and equipment needs, from a full-scale industrial aluminum can production line to advanced scanning electron microscopy. Consideration of the process and flow of materials, tests and people was of primary importance, as was assuring that environmental conditions (temperature, humidity and vibration) were controlled to a very tight tolerance in certain labs to avoid disruption to sensitive testing and research operations. Many of the laboratory spaces were ISO certified and as such, have enhanced engineering and monitoring systems.



DIAGNOSTIC TESTING LABORATORY

Cytometry Specialists, Inc.
Alpharetta, GA



CSI offers several diagnostic testing protocols, including Histology, Flow Cytometry, Cytogenetics, and Fluorescence In-Situ Hybridization (FISH).

In 2010, as a result of growth in their client base, CSI recognized the inadequacy of their current facility, and purchased a new 60,000 SF building for retrofit. CSI hired Lord Aeck Sargent (LAS) to design and construct a new corporate headquarters, laboratory, and laboratory support building which would suit their needs for a five-year window before further expansion was required; initial build-out footprint was to be 40,000 SF. Additionally, CSI commissioned LAS to Master Plan growth beyond the initial build-out into the unimproved space.



Ameritox provides personalized lab monitoring to help physicians assess whether a patient is taking pain medication according to their prescriptions.

The new Toxicology Laboratory includes a 65,000 SF fit-out of existing shell space. Critical areas include central accessioning, screening, sample preparation, a large number of GC/LC/ MS/MS analytical stations, and the required administration and support areas.

The project was implemented on a very short time frame, with less than 6 months for design and construction, requiring a dedicated team to move the project forward. The Lord Aeck Sargent team became fully integrated with the Ameritox staff to assure that highest quality in design, fully planned process flows, and successful equipment integration were incorporated successfully.



TOXICOLOGY LABORATORY

Ameritox
Greensboro, NC



ANALYTICAL LABORATORY

Caris Life Sciences
Phoenix, AZ



Similar to the Main Laboratory in Decatur, also designed by Lord Aeck Sargent, the Waycross Laboratory provides testing for bacteriology, immunology, microbacteriology, newborn screening, parasitology, virology, biochemical terrorism preparedness and training. It serves as a growth space to accommodate the increasing demand for Public Health, accommodating biological and chemical terrorism preparedness and reaction, and acting as a backup facility for the other Georgia Public Health facilities.



Caris Life Sciences provides sophisticated services for molecular testing, tissue and blood diagnostics to the health care market.

The majority of the lab areas are open with 20% allocated to specialized rooms with unique environments for individual test requirements. The testing process begins with a central accessioning area where samples are first received, evaluated, coded and then sent on a variety of test routes. Documents and test results are accumulated along the way, with the final stop to one of the many pathologists for evaluation and distribution of results.



GEORGIA PUBLIC HEALTH LABORATORY - WAYCROSS

Georgia Department of Public Health
Waycross, GA



TESTING LABORATORY

Laboratory Corporation of America
Phoenix, AZ

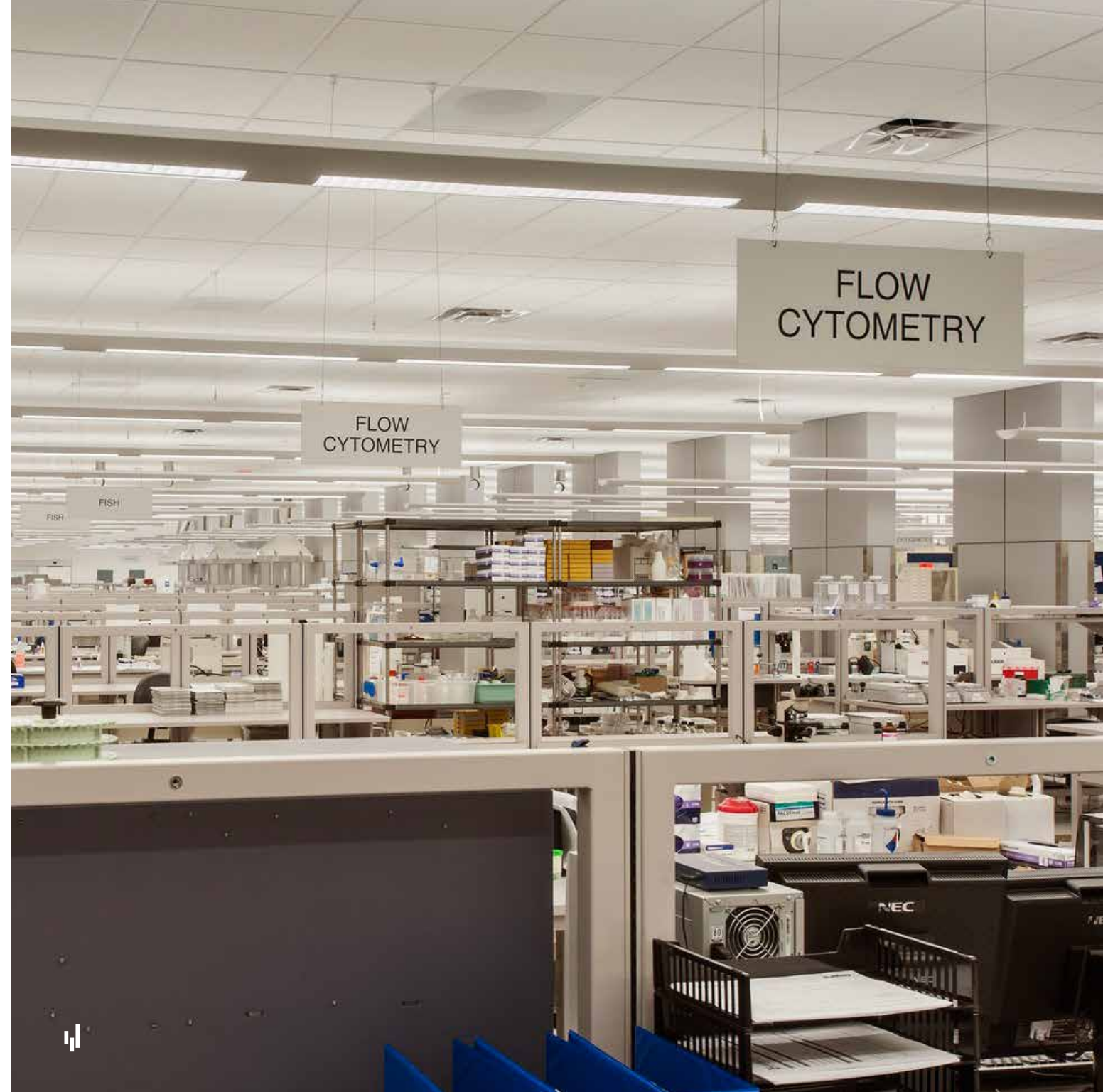


LabCorp offers sophisticated diagnostic medical testing across a broad spectrum of the healthcare market. The facility consolidates several previously separate operations under a single roof. The project consists of 148,500 SF of combined laboratory, administrative and support space. The majority of the first floor of an existing multi-tenant, two-story warehouse was renovated to house the clinical testing and administrative functions, while the second floor was entirely renovated for administrative functions.

Entirely new mechanical, electrical and plumbing systems were required to be

installed to support the lab demands, which included a small addition and a new mechanical mezzanine.

The primary testing area was planned to optimize process flow and consists of a large open lab area with flanking support labs, support spaces and offices. The project was designed, constructed and occupied by the owner within twelve months. Due to the shortened design and construction schedule, Lord Aeck Sargent provided nearly continuous on-site services throughout the construction process.



TESTING LABORATORY

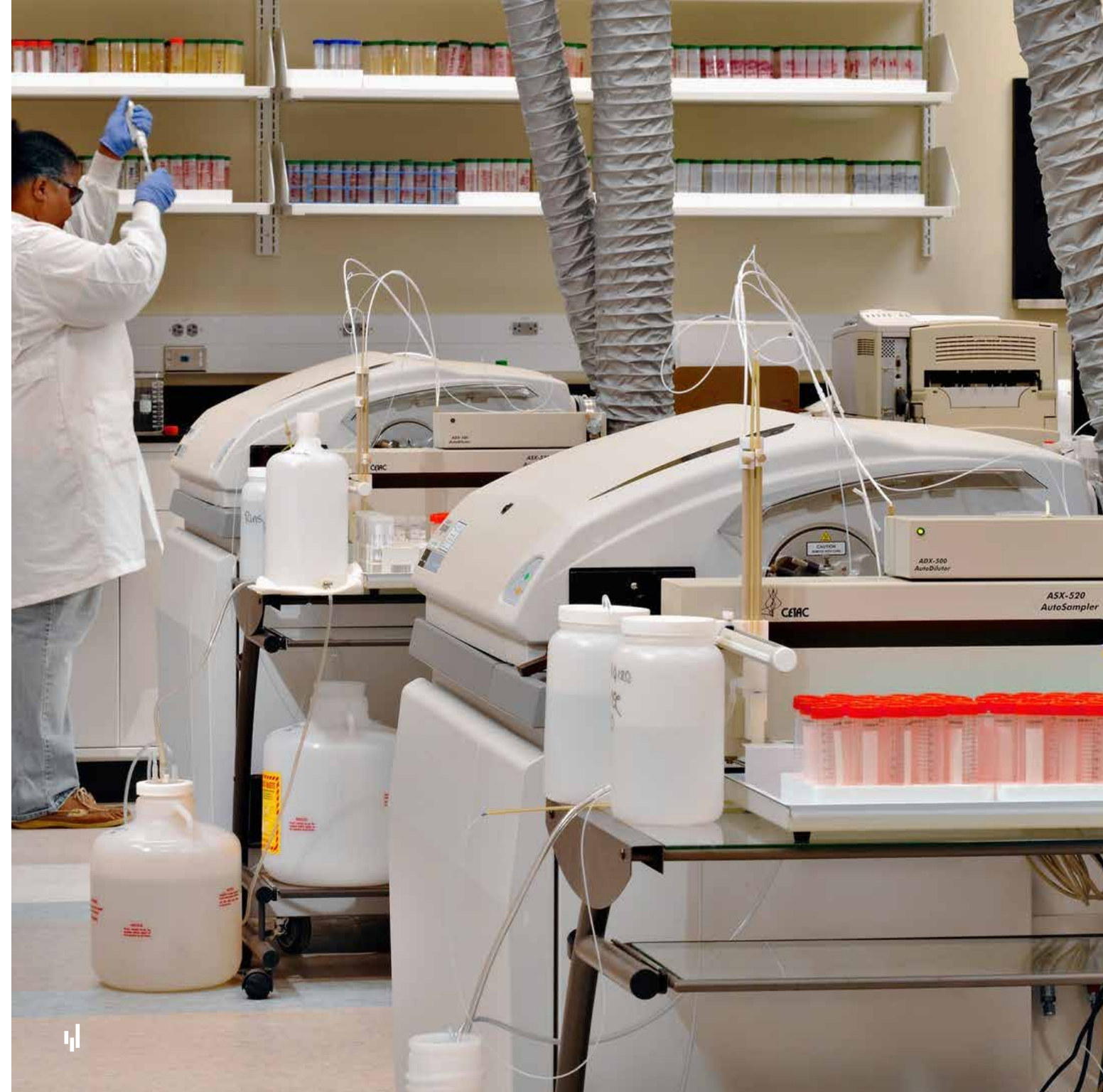
Georgia Environmental Protection Division
Atlanta, GA



This testing lab, meeting the demanding schedule of 18 months from design through construction, provides an analytical foundation for environmental compliance in all GA EPD regulatory programs including air, water, land and hazardous waste systems.

The lab conducts chemical and microbiological testing of air, water, soil, and biota throughout the state. The new lab is organized so processes flow efficiently

from receiving and accessioning functions through testing processes and finally disposal of waste. The testing facilities include air quality, bacteriological, GC/MS (volatiles), inorganics, organics and metals labs.

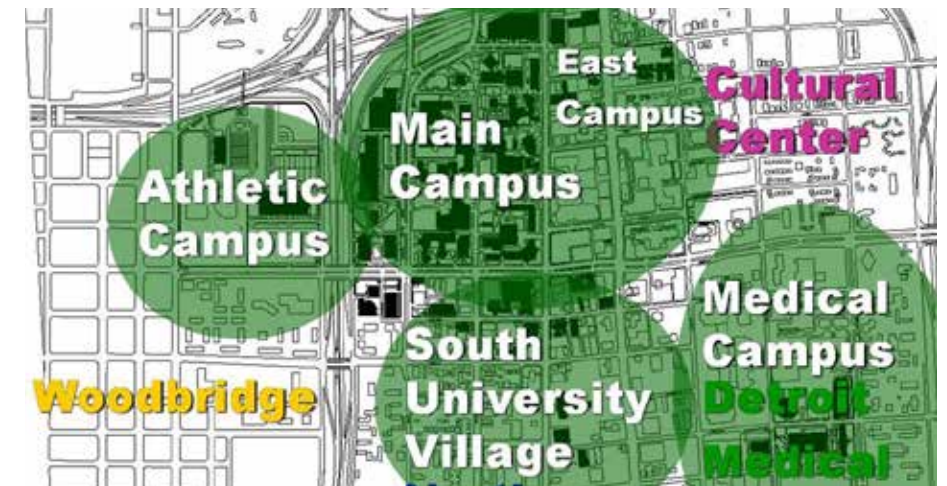


“The (LAS) team provided superior leadership under pressure and adapted easily to difficult and changing situations. I give my highest recommendation to LAS for projects involving historic structures identification, assessment and restoration.”

LTC Michael Tarpley
(Ret. LaNG)

07

PLANNING



The essence of planning for science is integration—integration of the various research and academic needs into interactive and collaborative settings—providing flexible and uplifting environments to foster and enable dynamic exchange of ideas and meaningful collaboration. Effective planning must be done within an overall framework that is respectful of available resources and recognizes the need to both maximize the use of space and optimize the impact

of financial assets. Planning occurs at a variety of scales and includes physical master planning at a campus or district level as well as strategic academic and space planning for the development and reuse of buildings, portions of buildings, or programs that may be distributed amongst numerous facilities. At LAS, we believe in utilizing planning to support environmental, social and financial sustainability by creating a detailed and comprehensive road map for future development.

BUILDING 15 MASTER PLAN STUDY

Center for Disease Control and Prevention
Atlanta, GA



Building 15 is a six story 100,000 SF high containment lab constructed in 1987. It has been the center of infectious research at the CDC for the last 25 years and houses BSL-2, BSL-3 and BSL-4 laboratories, laboratory support spaces and offices. The primary objective of the Building 15 Master Plan Study is to effectively extend the working life of the building for another 30+ years.

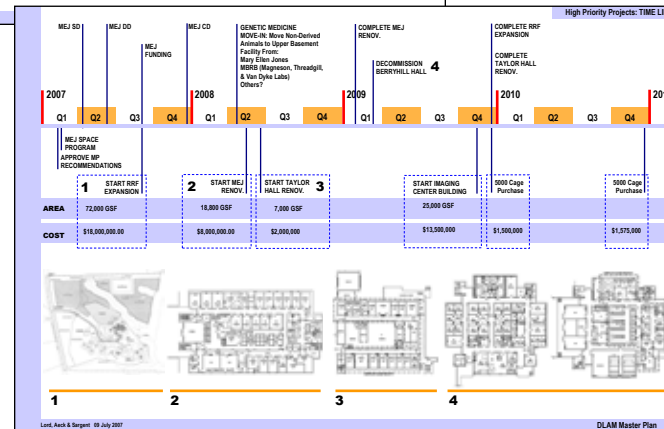
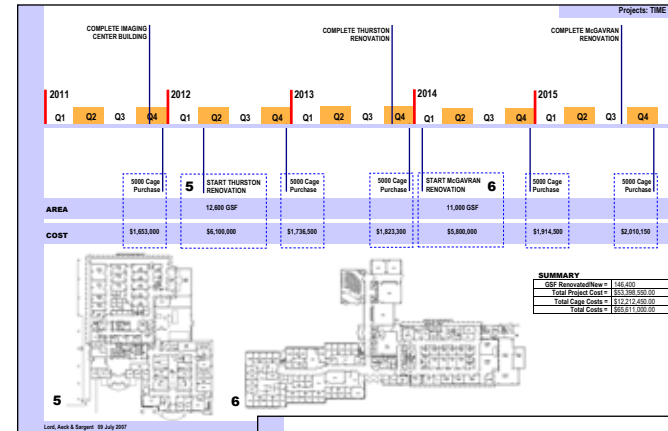
Key components of the Study include: identification of planned building renovation scopes, schedules and budget estimates for the existing BSL-2

and BSL-3 laboratories; design of the temporary change of use of the BSL-4 laboratories and Vivarium into laboratory swing space for the use of existing BSL-2 and -3 laboratories during renovations; and, establishment of building system standards and system reconfigurations and upgrades where they cannot be direct like-kind replacements.

In addition to physical planning efforts, Lord Aeck Sargent assisted the CDC in determining the best construction acquisition strategy to proceed with the modernization/renovation of Building 15.

STRATEGIC MASTER PLAN

University of North Carolina
Chapel Hill, NC



Since 1996, Lord Aeck Sargent has been continuously working with the University of North Carolina at Chapel Hill School of Medicine. During this time, planning services have included two iterations of the strategic master plan for the Research Campus and two iterations of animal facility master plan.

In addition to our planning role, LAS has led the development of over 750,000 SF of research facilities. A number of the projects were major revitalizations, making various changes, some significant, based on creating productive and effective teaching and research environments.

LEMUR CENTER HABITAT ENRICHMENT PHASE 1

Duke University
Durham, NC

SPACE PLANNING & IMPLEMENTATION PLAN

University of Houston
Houston, TX

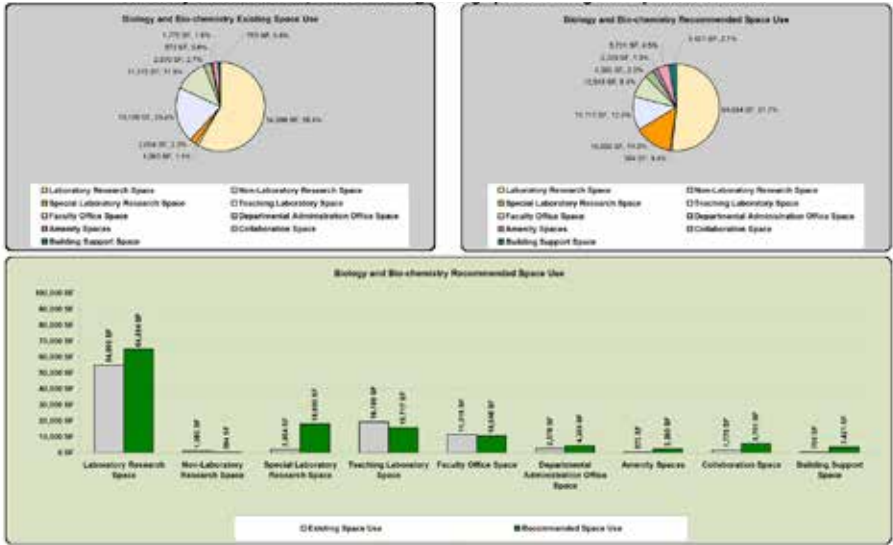


The Duke Lemur Center (DLC) is a world-renowned facility located in the Duke University Forest providing research and education leadership for the behavioral study and biological conservation of a wide variety of diurnal and nocturnal prosimian species.

The Duke Lemur Habitat Enrichment project included master planning for the entire 80+ acre site, space programming for the housing and natural forest environments of over 160 free-ranging and non-releasable diurnal lemurs, and

the subsequent sustainable design and construction of the housing and natural habitat enclosures.

Sustainable design complements the DLC's conservation mission; the new housing buildings are certified LEED Silver and were designed using holistic sustainable strategies such as maximizing the natural site features, designing an efficient thermal envelope and mechanical systems, and green roofing with native, drought-tolerant plantings.

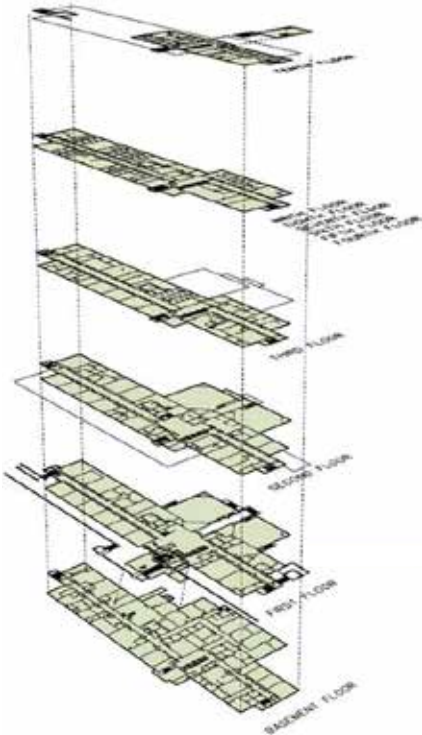


The University of Houston retained Lord Aeck Sargent and Paulien & Associates to study the program requirements of the College of Natural Sciences and Mathematics (NSM) to determine an appropriate course of action needed to substantially improve the quality and quantity of available space. The study considered both the immediate and long range (8-10 year planning horizon) needs.

The space planning study involved an analysis of the use patterns and physical conditions of eight major buildings for NSM and another six buildings for the College of

Liberal Arts and Social Sciences (CLASS), totaling nearly 1 million GSF.

The Implementation Plan, submitted to the University detailing a scenario selected from several potential plans reviewed with the University, showed a sequence of strategic moves, phasing schedule with individual moves sequencing, and cash-flow analysis. The goal was to provide more appropriate types of space for research, teaching and office functions, as well as to "defragment" the use of space by the various departments to create adjacencies promoting collaboration and collegiality.



MARINE RESEARCH & EDUCATION CENTER

Salt River Bay National Historical Park and Ecological Preserve
St. Croix, U.S. Virgin Islands

The Salt River Bay National Historical Park and Ecological Preserve (SARI) is located on the north shore of St. Croix in the US Virgin Islands. The Park was created in 1992 in an effort to both protect the habitat within the park, as well as to study the resources within it; both natural and historical and from the ridge of the mountains to the deep water reef eco systems.

The Marine Research and Education Center (MREC) will enable the National Park Service (NPS) and its partner organizations to fulfill their mission to provide public educational opportunities about and in the marine ecosystems while engaging the local community.



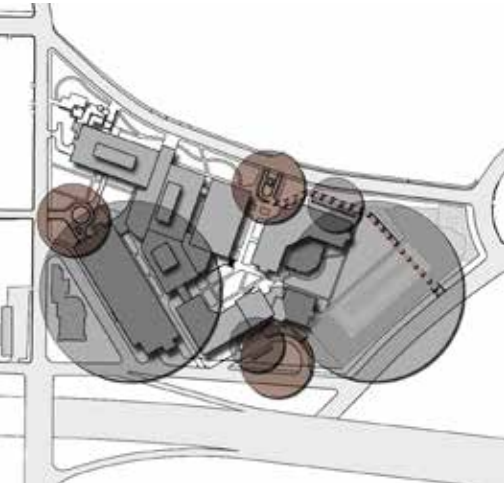
Targeting Living Building Challenge Certification



**Conceptual master plan pending approval by NPS.*

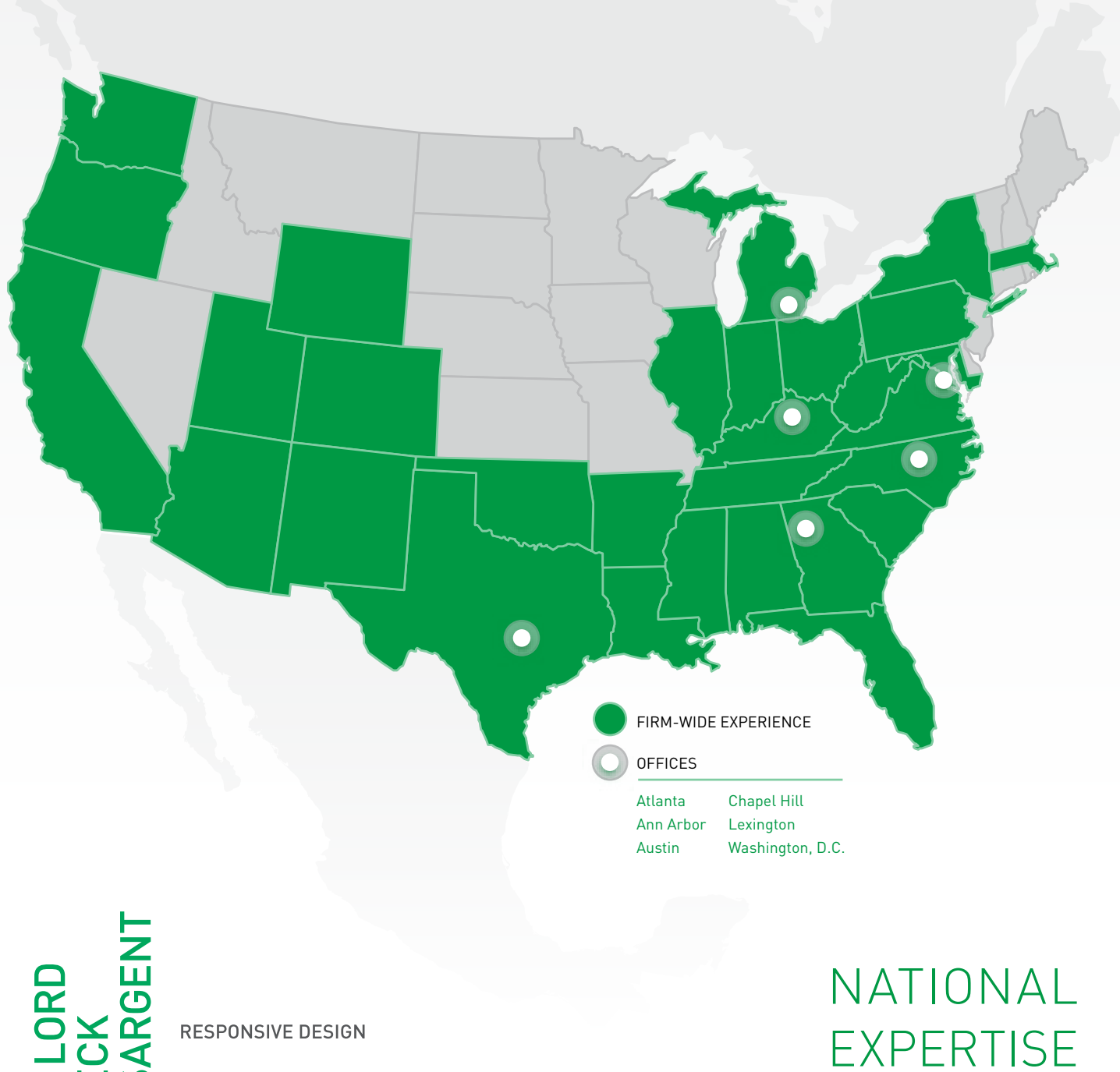
The Morehouse School of Medicine (MSM), located on 20 acres near downtown Atlanta, is a private, historically black medical school with an enrollment of 300 students and 140 residents. The medical school hired Lord Aeck Sargent to provide master planning services with a primary goal of expanding both its class size and research facilities.

The MSM Master Plan includes: documentation of the existing campus (including the various departments/ user groups); development of a new precinct plan; strategic planning to migrate the disparate departmental functions to form cohesive, efficient groupings; integration of the various grant opportunities and their impacts to the physical environment; creation of clearly visible campus entry points; and planning for future building expansion.



CAMPUS MASTER PLAN

Morehouse School of Medicine
Atlanta, GA



NATIONAL EXPERTISE

08

FIRM PROFILE

RESPONSIVE DESIGN

Lord Aeck Sargent is an architecture and design firm with a 70-year history of creating environments people want to use and preserve.

With offices in Atlanta GA, Austin TX, Ann Arbor MI, Chapel Hill NC, Lexington KY and Washington DC, our firm has seven practice areas: science & technology, higher education, arts & culture, historic preservation, housing & mixed-use and urban design & planning.

We share a common mission of providing responsive design, technological expertise and exceptional service in order to provide our clients with the best possible facilities that will serve them well into the future.



We thrive in the midst of complex projects that require depth of experience and cross-discipline collaboration. Responsive design has been our guiding philosophy for seventy years, and we deliver uniquely creative responses to each project's every detail. The result is thoughtful solutions that respond to the site, the context and the needs of its occupants.

Our portfolio includes museums, arts centers, government buildings, laboratories, corporate headquarters, education facilities and conference facilities. Our services range from master planning and programming to design, construction administration and facility management support.

Our design staff represents a broad range of experiences in design and construction. Our staff includes registered architects, urban designers, materials specialists, interior designers, land planners, cost estimators and zoning specialists.

140+

dedicated
professionals

130+

college & university
clients nationwide

50+

LEED-accredited
professionals

50+

LEED-certified projects

2030

LAS was one of the first
architecture firms in the country to
adopt The 2030 Challenge



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