

Academic Facilities Council (AFC) Spring Conference 2012 @ Duke University

April 25 – 27, 2012

Agenda Sessions Summaries

Leadership and the Facility Management Professional

Facility Management Professionals are skilled administrators, managers, supervisors, employees, technicians. This module will look at the Facility Management Professional as LEADER.

What motivates you? What is your skill set? What's your next step on the ladder of success? How do you take your team/department/division/organization to the next level? What is the next level? What do you want to develop in yourself and why and then how?

This module is in two parts; Part 1 - at the start of the conference and; Part 2 - at the end of the conference. These questions and others will be asked and then answered. You will be re-energized!!

Keywords: Leadership, Advancement, Personal Development

Orientation to Duke University – History, Tradition & Mission

Duke University in Durham, North Carolina traces its origins to 1838 to Methodist and Quaker families in rural Randolph County, NC. In 1892, after a spirited competition among piedmont cities, Trinity College (now East campus) opened in Durham, largely because of the generosity of Washington Duke, an influential and respected Methodist who became prosperous in the tobacco industry. In 1924, James B. Duke established The Duke Endowment, a forty million dollar trust fund, for a university to be built around Trinity College and for the creation of a new campus. So begins Duke University and the construction of the new West, or Gothic, campus. This session orients you to Duke University, the campuses, the history, the area and more.

Keywords: Duke History, Duke Tradition, Durham

Overview of Duke University Facilities

A general overview of the responsibilities of Duke's Facilities Management. With a new administration brought on board in 2005, the department has reorganized and transitioned in order to be better positioned to meet their challenges and provide the necessary services. Several changes made to the organization in the last six years will be discussed and highlighted. Learn about the changes in the department's project management, utilities, engineering, and administration. Also learn about the development of strategic initiatives and how they are used to maintain consistent and focused improvement.

Keywords: Facility Management, Organization, Strategy

Duke Sustainability

To reach the goal of carbon neutrality by 2024, Duke University has established The Duke Carbon Offsets Initiative (DCOI). DCOI's mission is to develop local, state, and regional carbon offset projects that yield benefits beyond greenhouse gas emission reductions. Learn about an innovative waste-to-energy project that collects methane generated by hog waste and burns it to support the operations of the innovative system and create electricity for use on the farm. The destruction of the methane—a greenhouse gas 21 times more potent than carbon dioxide—

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creates GHG offsets, and the renewable energy generated by the system creates renewable energy credits (RECs). Hear about this and other sustainability efforts of Duke University's Climate Action Plan.

Keywords: Emissions Reduction, Sustainability, Climate Action Plan

The Future of Paper

Will academic and educational institutions go paperless? With the advent of electronic forms of communication, new media, audio/visual advances and the internet; using less paper has been viewed as the natural result. But is this true? Hear a unique perspective on the use of paper, technologies around paper; follow the life of a sheet of paper and consider projections on how we will ultimately come to terms with our use of paper and the impacts on our lives, forests and planet. Can we live without paper and what will life be without it?

Keywords: Sustainability, Recycling, Academics

Water/Stormwater

Water is one of our most important resources and good water management can be challenging. Learn about Duke's potable and stormwater management best practices, conservation measures, benchmarking and new initiatives. Sustainable projects include a new chilled water plant, new wells, metering, reclaimed water reuse, Stream and Wetland Assessment Management Park (SWAMP), water reclamation ponds and others. This session will build on Duke's sustainability successes, education efforts, and innovation while exploring new opportunities in working with local government and regulatory agencies to build an impressive water conservation program.

Keywords: Water Conservation, Sustainability, Facility Management

Sarah P. Duke Gardens

Nothing more than a big pond in the early 1900's, Duke Gardens is recognized as one of the premier public gardens in the United States, renowned both for landscape design and the quality of horticulture. It is one of the most beautiful gardens of any college campus. Often spoken of as "the crown jewel of Duke University," Duke Gardens occupies 55 acres in the heart of west campus. Each year Duke Gardens attracts more than 300,000 visitors from all over the world. Hear about her history, design, management evolution and experience the beauty of Duke Gardens.

Keywords: Duke Gardens, Duke History, Horticulture & Design

Duke Master Planning & Duke Architecture

Keynote speaker Dr. Tallman Trask, Executive Vice President and John Pearce, Advising Architect will present an in-depth look at Duke's architecture over the decades. As Executive Vice President and Treasurer, Dr. Trask is responsible for the budget, financial affairs, procurement, debt, campus planning, architecture, maintenance and construction, real estate, human resources, academic and administrative computing, audit, safety and security, and auxiliary services (including dining, stores, parking and transportation). Mr. Pearce, FAIA, served as the

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University Architect from 1992 until 2010. In this role, he was responsible for the overall aesthetics of the campus, the Master Plan, building site planning, historic preservation and landscape design, as well as the exterior design of all University facilities by advising University Officers, Trustees, and committees on planning and building design issues.

Keywords: Architecture, Master Plan, Design

Duke Gets Off Coal

After decades of using coal to fire steam plant furnaces for all university and medical center heating, Duke Facilities Management converted their coal-fired plants to natural gas as the fuel source. Dozens of key players, millions of dollars, vision and careful planning were all key elements in accomplishing this major initiative and important project. Hear a panel of Duke professionals discuss the challenges and rewards of this energy conversion. The panel will cover:

- history, planning and process for the conversion
- demolitions, reconstructions & reconfigurations
- the drivers and business model to make the case
- how they accomplished this with no lay-offs, restructuring
- training & managing change/transition
- how the conversion fits in with the university's sustainability efforts
- results/impacts of the conversion & lessons learned

Keywords: Energy, Sustainability, Plant Management

How to Choose a Project Delivery Method

A look at the different ways a construction project can be delivered to the owner. Academic facility professionals and administrators must make important decisions regarding the method by which a building, a facility or a set of buildings are designed and constructed—the project delivery method. Budgets, design, expertise, risk, schedule and other factors come into play when deciding which delivery method to choose. And decisions are getting more difficult as several alternative delivery methods have been developed. This session will also include a case study on the Integrated Project Delivery (IPD) method examining two Duke building projects: the Nasher Museum of Art @ Duke and the Coach K Center for Athletic Excellence.

Keywords: Project Delivery, Campus Planning, Construction Projects

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Building Information Modeling – 3 Parts

1 - Building Information Modeling (BIM) has emerged as **the** new technology in the building industry. Architects, contractors, designers, planners, subcontractors and others are increasingly using BIM because it provides accurate, timely, relevant and centralized information giving all building stakeholders access to the same data and information, greatly improving communication, collaboration and problem-solving, proving its value in building design and construction.

2 - See real world application of BIM in the design and construction of the Duke University Medical Center's new 300,000 square foot ambulatory Cancer Center and the new 600,000 square foot Duke Medical Pavilion.

3 - BIM for the FM includes opportunities to enhance the management and maintenance during the entire building lifecycle in Space Management, Energy Efficiency, Preventive Maintenance, Retrofits and Renovations and Lifecycle Management.

Keywords: Facility Management, BIM, Building Lifecycle

Duke Medical Center Campus & Building Tours – 3 parts

1 – A look at the Duke Medical Center Master Plan to include the new and planned construction projects, existing research, medical and education buildings, expansions and design.

2 – Duke School of Medicine construction project – not since the formation of the School of Medicine in 1930 has Duke built a SOM building. Look at components of site planning, building design, innovative classrooms and simulation spaces in this 84,000 square foot facility bridging the medical center campus with the academic campus.

3 - Duke Cancer Center & Duke Medical Pavilion new facilities – nearly 1 million square feet of ambulatory and in-patient space, the new Duke Cancer Center and Duke Medical Pavilion (DMP) will change the face of patient care delivery. This session will orient you to the new DMP in preparation for a special behind-the-scenes tour of the new facility.

Keywords: Campus Planning, Medical Center, Construction Projects

Home Depot Smart Home

Duke's Smart Dorm was the first LEED Platinum building on Duke's campus and the first live-in laboratory in the world to receive the highest certification from the USGBC. The Home Depot Smart Home is a 6,000 square foot live-in research laboratory operated by Duke's Pratt School of Engineering. The Home Depot Smart Home, part of a Duke Smart Home Program, creates a dynamic "living laboratory" environment that contributes to the innovation and demonstration of future residential building technology. The central concept of this project is our belief that smart homes can improve the quality of life for people of all ages and incomes.

Keywords: LEED, Sustainability, Laboratory