Facilities Planning & Management Overview
University of Wisconsin – Madison

Bill Elvey, P.E., Associate Vice Chancellor
Facilities Planning & Management

• Introduction
• Who we are and what we do
• Challenges and opportunities
• Capital projects and budget process
• Organizational overview
• Campus master plan
Facilities Planning & Management
Who We Area and What We Do

• Full spectrum of facilities management activities
• 936-acre UW-Madison; 9,566 acres off-campus
• More than 1,000 employees
• Operating budget of approximately $200 million
• 420 buildings on campus
• 25 million gross square feet of space
• 2.2 million square feet of research lab space
• .5 million square feet of classroom space
• $2.3 billion in capital projects since 2000
• Two major utilities plants, plus Co-Gen facility
Facilities Planning & Management
Challenges & Opportunities

- Create a ‘people-first’ centered culture
- Create efficiencies and be effective
- Provide outstanding customer service
- Safety
- Sustainability
- Changing workforce demographics
- Create an engaged, inclusive, and diverse workforce
- Create a high-performing organization through clear HR practices, including identifying and nurturing talent that relies on teamwork and interdependence
- Reward individual, team, and organizational efforts
- Invest in training and continuous learning and innovation
- Improving our relationship with State government
Timeline – Current Major Projects
2013-15 Capital Budget Project Requests

- Chemistry Instructional Facilities Expansion
  $103,490,000 General Fund Supported Borrowing (GFSB)

- Meat Science and Muscle Biology Laboratory
  $42,877,000 GFSB/Gift

- Center for Dairy Research and Babcock Dairy Plant Expansion
  $31,920,000 GFSB/Gift

- South Campus Utility Improvements
  $12,695,000 GFSB/Program Revenue

- University Houses Renovation
  $15,000,000 Program Revenue

- Sellery/Witte Halls Renovation
  $47,004,000 Program Revenue

- Memorial Union Renovation Phase II
  $42,085,000 Program Revenue/Gift
Capital Budget Timeline

Jan-Feb 2013  | Spring 2013  | Summer 2013  | Fall 2013  | Dec 2013  | March 2014

**April 2013**
- Issue Statements Due to FPM

**May 2013**
- Meet with Schools, Colleges and Divisions to define physical planning issues
- Develop Issues Statements

**Spring 2013**
- Develop Project Request Documents
- CPC Selects Six-Year Issues for Further Study

**Summer 2013**
- CPC Presentations

**Fall 2013**
- CPC Recommends, Chancellor Approves Six-Year Capital Building Program - Enumerated Projects

**Dec 2013**
- UW System Reviews 2015-17 Capital Projects for BOR Consideration
- CPC/Chancellor Approve 2015-17 Capital Budget Request and Six-Year Capital Building Program and Submit to UW-System

**Feb 2014**
- Finalize & Submit Six Year Physical Development Plan to UWSA
Capital Budget Timeline


**Board of Regents Adopts 2015-17 UW Capital Building Program**

**UW System Finalizes UW Project Requests**

**Regent Briefings**

**DSF Analyzes 2015-17 Capital Projects for SBC Consideration**

**SBC Briefings**

**SBC Recommends State 2015-17 Capital Building Program to Joint Finance Committee**

**Legislature Adopts 2015-17 State Budget**

**Joint Finance Committee recommends State 2015-17 Capital Building Program to State Legislature**

**Governor Signs 2015-17 State Budget**

**Legislature Adopts 2015-17 State Budget and sends to Governor**

**Governor Signs 2015-17 State Budget**
Capital Planning and Development
Dan Okoli, University Architect and Director
Capital Planning and Development

**Major Duties**

**Capital Budget**
- Work with the AVC to navigate UW System and State approval process and other major project issues
  - Since 2000, $2.3 billion worth of capital projects have been completed

**University Architect**
- Review design for all major projects to ensure aesthetic intent of the campus master plan is met
  - Since 2005, the Design Review Board has held 95 reviews (39 separate projects)

**Project Managers**
- Work with customers and stakeholders through all phases of project
  - Approximately $692.4 M worth of projects currently in various phases of planning, design, and construction
Capital Planning and Development

Major Initiatives
Sustainability/LEED - Certified four campus LEED projects
• UW Medical Faculty Centennial Building – Gold Certified
• School of Education – Platinum Certified
• Wisconsin Institutes for Discovery – Gold Certified
• Union South – Gold Certified
• Currently tracking 14 other projects with LEED ratings of silver or higher

Internships and Capstone Course Collaboration
• Developing an internship program that challenges students and young professionals, providing experiences that reinforce classroom learning

Post-occupancy Surveys
• Developing measures to assess user satisfaction of completed projects
• Creating users’ evaluations of project teams
Environment, Health and Safety
Paul Umbeck, Ph.D, Director
Environment, Health and Safety

- Biological Safety
- Chemical Safety
- Engineering and Technical Services
- Fire and Life Safety
- Lake Safety
- Occupational Health and Industrial Hygiene
- Radiation Safety
Utilities

Utilities Generation:

Charter Street & Walnut Street Heating/Cooling plants are owned and operated by UW. The West Campus Co-Generation plant is Jointly owned with MGE and operated by MGE. These plants produce:

- Steam (high & low pressure)
- Chilled water
- Electricity
- Compressed air
Utilities

Utilities purchases:

• Natural gas fuels boilers in all the plants.

• High voltage electricity is purchased from MGE through UW Substations.
  
  • ~15% of purchased electricity is from wind power
  • Some buildings’ electricity is fed directly by utility companies

• Water & sewer service is purchased from the City of Madison.
Utilities

Utilities distribution:

Throughout the campus, approximately 15 miles of underground piping distribute:

- Steam
- Chilled water
- Electricity
- Compressed air
- Condensate return
- Potable water
- Lake water
- Storm sewer
- Sanitary sewer
Utilities

Utilities costs:

• Annual cost of providing utilities to operate the campus facilities exceeds $71 million.

• UW provides utilities to some non-campus entities on a chargeback basis.

• Conservation efforts have reduced campus energy consumption per gross square feet by over 25% since 2005.
Over 270,000 hours of maintenance service provided in FY 12 for:

- Building space (~16 million GSF)
- Building systems (~330 major buildings)
- Campus exterior structures
- Campus roads (~12 miles)
- Campus sidewalks (~50 miles)
- Underground piping (~15 miles) including utility tunnels (~5 miles)

Maintenance services are funded centrally by the University.
In-house Remodel Projects

• Over 38,000 hours of service was provided in FY12 to address customers’ remodeling and campus minor construction requests.

• Prior approval from the Deans’ office is required for remodeling requests.

• Over 45,000 hours was spent on energy conservation projects in FY12.

• Labor and material costs for most projects are charged to the customers. Chargeback rates for shops are established annually to cover all costs on a not-for-profit basis.
Fleet Services

Responsible for procurement and management of over 700 University owned vehicles

- Vehicle Rental
- Departmental owned vehicles
- Departmental vehicle leases

Fleet rental and lease fees are calculated to cover all associated costs on a not-for-profit basis.

Vehicle reservation requests are made through:
- www.physicalplant.wisc.edu
- Phone: 262-1307
Fleet Garage

• Full maintenance services are provided to University fleet vehicles and specialty equipment on a charge-back basis.

• Garage chargeback fees are calculated to cover all associated costs on a not-for-profit basis.

• Service appointments are made through:
  • Phone: 262-3555
  • Fax: 265-5948

• Fleet Garage is located at 27 N Charter Street.
Physical Plant – Operations
Kris Ackerbauer, Assistant Director

• Campus Services
  • Campus Mail
  • Truck Service
  • Facility Repair Workers

• Custodial Services

• Grounds

• Pest Control

• Waste and Recycle
Custodial Services

• Approximately 450 custodians (57% 2\textsuperscript{nd} shift, 37% 3\textsuperscript{rd} shift, 6% days)

• English is not the primary language for about 1/3 of staff (custodians may not understand notes that are left for them)

• 26 first – level supervisors

• 3 shift supervisors

• 136 buildings

• 15.1 million gross square feet (GSF)
Grounds (Environmental Services)

• Maintain 936 acres
  • Woody plants
    • 11,700 trees and countless shrubs
    • 8 employees

• Turf, flowers and greenhouse
  • 73 acres of lawn
  • 6 lawn employees
  • 30,000 plants
  • 5 greenhouse employees

• Concrete, paving and signage
  • 12 miles of streets, 50 miles of sidewalks,
    100 parking lots and structures
  • 6 construction/maintenance employees
Pest Control

• 1 employee – Richard (the Bug-man) Ness

• Removal of insects, pests, small animals

• Pesticide application notification
  • Environment, Health and Safety website
  • UW staff should notify ADA rep/CARS if extremely sensitive to pesticides
Waste and Recycle

- 21 employees

- Night time pick-up of trash and recyclables

- Empty outdoor trash receptacle (250 trash receptacles)

- Snow removal

- Litter pickup, clear light poles of posters

- Collect wood pallets, scrap metal/appliances from docks
  - Contact CARS 3-3333 for this service

- Debris removal from shoreline
Waste and Recycle

- Total rubbish – 5538 tons
- Total recycled – 2739 tons
  - 1058 tons mixed paper (cardboard, magazines)
  - 425 tons office paper
  - 430 tons glass/plastic/aluminum
  - 57 tons books
  - 165 tons food compost
  - 82 tons pallets
  - 485 tons scrap iron
  - 37 tons virgin wood
Space Planning and Analysis

Maintain official UW-Madison facility information:

• Collect, validate and distribute facility data
• Maintain and distribute accurate building floor plans
• Serve as source for official campus facility addresses
• Manage building and room naming processes
• Report facilities data to UW System, state and federal agencies, peer institutions
• Provide facilities data for emergency planning
Support space planning:

- Evaluate requests, develop alternatives, negotiate and recommend space assignments
- Conduct space analyses
- Recommend policies/procedures to Space and Remodeling Policies Committee (SRPC)
- Manage space relocation planning
- Advise on physical relocations
Space Planning and Analysis

Conduct Facilities and Administration (F&A) space survey:

- Develop guidelines, process and schedule with the F&A Committee
- Train research staff regarding the on-line survey methodology
Real Estate and Leasing

Administer the University’s real estate portfolio:

• Coordinate real estate transactions
• Conduct property appraisals and environmental assessments
• Prepare and review easements, legal descriptions, deeds
• Manage special assessments and municipal payments
• Support strategic planning efforts
Real Estate and Leasing

Lease administration of privately owned spaces:

• Evaluate space needs
• Conduct RFP process to identify lease alternatives
• Represent UW-Madison in lease negotiations
• Manage new construction or tenant improvements
• Process monthly rent payments and lease-related invoices
• Resolve tenant-landlord disputes
Classroom Planning and Management

Responsible for the physical environment in general assignment classrooms:

- Manage maintenance, planning, remodeling and upgrades
- Evaluate, prioritize, plan renovation projects
- Coordinate maintenance activities
- Conduct classroom utilization analyses
Classroom Planning and Management

Responsible for the presentation technology in general assignment classrooms:

- Oversee the classroom modernization program
- Monitor technology use and performance, maintain and upgrade as required
- Provide training sessions on proper use of presentation technology
- Provide emergency response to faculty and instructors requiring assistance
Transportation Services

Mission
Provide innovative transportation solutions that serve and support the university community

Objective
Sustain and strengthen our cutting-edge transportation programs
Major Services

• Permit management
• Parking enforcement
• Special event parking
• Travel Reduction Management
• Campus bus service
• Employee bus pass program
• Bicycling and pedestrian support
• Visitor parking
• Traffic planning
• Moped management
• Parking lot maintenance and infrastructure improvements
• Outreach and education
Informational Statistics

- 17,000 Faculty/Staff
- 42,000 Students
- 4.6 million annual visitors
- 13,000 vehicle parking spaces
  - 9,000 permit
  - 4,000 visitor and service
- 10,000 parking permits sold
- 10,000 bicycle parking spaces
- 16,000 bus passes distributed
- 2.5 million passengers on campus bus routes
**Campus Planning & Landscape Architecture**

**Major Duties**

- Develop, maintain and implement the comprehensive 20-year Campus Master Plan every 10 years
- Facilitate district, college and unit sub-master plans
- Facilitate all site & landscape architecture planning & design
- Facilitate all municipal zoning approvals
- Facilitate all neighborhood review processes for capital projects
- Coordinate all physical facilities access and ADA accommodations
- Promote universal design for all new & remodeled facilities
Major Duties

• Manage cultural and historic resources including public art

• Facilitate review and negotiate mitigation of impacts on historic resources with the Wisconsin Historical Society

• Facilitate Environmental Impact Statements/Assessments and review all projects to assure compliance with the Wisconsin Environmental Policy Act

• Provide field management and oversight of volunteer program in the 300-acre Lakeshore Nature Preserve

• Provide outreach activities and promote academic and research use within the Lakeshore Nature Preserve
Campus Planning & Landscape Architecture

Lakeshore Nature Preserve
Campus Master Plan Status Report
University of Wisconsin – Madison

Gary A. Brown, PLA, FASLA
Director, Campus Planning & Landscape Architecture
Facilities Planning & Management
Goals of the 2005 Campus Master Plan

1) **Sustainability**
   - Protect, enhance and celebrate our lakeside setting.
   - Develop sustainable design guidelines to build more “green” facilities - “UW Builds Green”
   - Reduce our impact on the land.
   - Manage and reduce our overall energy consumption – “We Conserve”.

2) **Community, Academic & Research Connections**
   - Promote the Wisconsin Idea by enhancing our physical, academic and community connections.
   - Replace aging buildings, add research space and improve academic facilities - 34 completed major projects
   - Promote interdisciplinary learning and research with flexible facilities.
     - 10 projects in construction
     - 12 projects in design/planning

3) **Student Life**
   - Renovate, restore and rebuild the Wisconsin Union facilities – Wisconsin Unions Master Plan.
   - Add to our on-campus housing capacity to meet demand of first year students – UW Housing Master Plan
   - Upgrade our recreational facilities – UW Recr Sports Master Plan – UW Athletics Master Plan
   - Create new outdoor spaces for more informal outdoor gatherings.
Goals of the 2005 Campus Master Plan

4) **Buildings & Design Guidelines**
   - Preserve significant historic buildings. *(Chamberlin, Washburn, Sterling, Education, Human Ecology...)*
   - Renovate existing buildings when possible and remove obsolete buildings.
   - Provide buildings that can be easily renovated or reprogrammed that last 100+ years.
   - Define existing neighborhoods of design and develop design guidelines for future buildings – Design Guide.

5) **Open Space**
   - Protect and enhance our existing open spaces and create new gathering areas.
   - Maintain Lakeshore Nature Preserve for teaching, research and outreach – Lakeshore Preserve Master Plan.
   - Protect and enhance known historic cultural resources, landscapes and quads – Cultural Landscape Report.

6) **Transportation & Utilities**
   - Provide attractive options to driving alone to, from and around campus – Transportation Demand Mgmt Plan.
   - Maintain existing parking capacity of 13,000 spaces – Long Range Transportation Master Plan.
   - Increase pedestrian safety, add bike lanes/paths and increase bicycle commuting facilities.
   - Provide for a reliable utility network to meet current & future needs – Utility Master Plan.
Projects Completed (34)
- WIMR, Tower 1
- UW Band Practice Field
- Lot 36 Parking Ramp Addition
- Microbial Sciences Building
- Lot 34 Redevelopment & Bioswale
- Washburn Observatory Renov.

- Hiram Smith Hall Renovation
- Sterling Hall Renovation
- Grainger Hall Addition
- New Ogg Residence Hall
- Newel Smith Residence Hall
- Park Street Office Building
- Art Lofts Project
- Biochemistry Addition
- Gordon Dining & Event Ctr

- Central Campus Utilities
- Mechanical Engineering Renov.
- WI Vet Diagnostic Laboratory
- Walnut Street Greenhouses
- West Campus CoGen Facility
- University Square Redevelopment
- Chad/Barnard Hall Renovations
- Physical Plant Services Bldg
- Nicholas Hall – Human Ecology
- UWMF Centennial Office Bldg
- East & West Campus Utilities
- Randall / Dayton Utilities
- Wisc Institutes for Discovery
- Union South Redevelopment
- Education Addition & Renov.
- Chazen Museum of Art Addition
- Dejope Res Hall & Dining Facility
- LaBahn Arena
Current Major Projects – In Construction

Projects in Construction (12)
- Wisconsin Institutes for Medical Research, Tower II
- Wisconsin Energy Institute, Phase I
- Integrated Dairy Facility
- Carson Gulley Renovation
- Lake Mendota Shoreline Renovation
- East Campus Utilities
- Charter Street Heating Plant Upgrades
- Softball Practice Facility
- Cooper Hall School of Nursing Building
- Lakeshore II Housing
- Student Athlete Performance Center
- Memorial Union Renovation
Current Major Projects – In Planning/Design

- UW Hospital Parking Ramp Expansion
- CoGen Chiller Addition
- Alumni Park
- Music Performance Facility
- Elizabeth Waters Hall Renovation
Current Project Highlights
Wisconsin Institutes for Medical Research

- Tower 1 of 3 completed
- Tower 2 currently in construction
- Tower 1 = 491,000 GSF
- Tower 2 = 251,000 GSF
- Medical School research facilities
- Tower 1 occupied in September 2009
- Tower 2 due to be occupied in Nov. 2013

**Funding:**
Tower 1 - $188,700,000
  - $23.40 M GPR
  - $165.30 M Gifts, Grants

Tower 2 - $134,800,000
  - $67,400,000 GPR
  - $67,400,000 Gifts, Grants

Designed by HOK, Zimmerman
Lakeshore Residence Hall / Food Service, Phase I

- 172,000 GSF res hall + 39,200 GSF dining hall
- 412 beds in phase 1
- outdoor plaza and fire pit area
- great lawn with lake views to the north
- Scheduled occupancy in August 2012

Funding:
- $47.6 M Housing Program Revenue

Designed by Engberg Anderson and Mackey Mitchell
Lakeshore Housing, Phase II

- 64,400 GSF Building
- 156 new beds to meet overall demand
- Native plantings emphasis
- Rain garden for stormwater management
- Rooftop greenhouse, food production
- Start construction in May 2012, done fall 2013

Funding:
- $ 17.36 M - Housing Program Revenue

Designed by Eppstein Uhen Architects
Wisconsin Energy Institute

- Two phase 200,000 GSF facility for energy research
- Supports Dept. of Energy grant for biofuels research
- Focus on sustainable building design
  - extensive use of day-lighting, possible geothermal heating
  - sustainable building materials & building systems
  - stormwater management initiatives
- Scheduled occupancy in January 2013

Funding:
- $100.00 M Total Project Budget, 2 phases
  - $50.00 M GPR
  - $50.00 M Gifts, Grants, Other (future)

Designed by Potter Lawson Architects / HOK
Student Athlete Performance Center

- 146,000 GSF addition
- Remodeling to Camp Randall & McClain Ctr
- New multi-purpose greenspace
- New north practice field turf
- Upgrades to Badger Way & ped/bike mall

Funding:
- $76.8 M – Athletics Program Revenue & Gifts

Designed by VOA and BSA Architects
Charter Street Heating Plant Rebuild

- Switch from coal boilers to natural gas
- Totally off coal since early March 2012
- Biofuels include burning wood pellets, switchgrass, corn stover, etc. (future option)
- Includes replacement physical plant building
- Scheduled completion for December 2013

Funding:
- $ 150.60 M Program Revenue

Designed by P3M & Potter Lawson
Chazen Museum of Art

- 81,000 GSF Addition
- Doubles gallery, storage and multi-use spaces
- Overhead bridge connector to original building
- Includes East Campus Pedestrian Mall work
- Occupied in October 2011
- Has won several design awards

Funding:
- $47.20 M Gifts, Grants, Other

Designed by Muchado & Silvetti Associates & Continuum Architects
LaBahn Hockey / Swimming Facility

- 120,000 GSF Addition to Kohl Center
- 2,500 seat arena
- Hockey area for Women’s Hockey competition, and men’s/women’s practice
- new locker rooms for both hockey teams
- locker rooms for swim teams with connection to SERF for practice
- upgrades to SERF for swim team
- Projected occupancy in Dec. 2012

Funding:
- $ 27.80 M Gifts, Grants, Other

Designed by Kahler Slater Architects
Gordon Commons Redevelopment

- 94,700 GSF Building
- Replacement dining facility for SE campus
- Main Housing food production facility
- Grab & Go Conveniences Store
- Event / Dining Halls for 300 & 720 seats
- Started construction March 2011
- Project occupancy in July 2012
- Phase 2 demo & site work done in 2013

Funding:
- $34.00 M - Housing Program Revenue

Designed by Potter Lawson Architects
Memorial Union Renovations

- 90,000 GSF renovation & addition to Theater
- 1st phase is Theater addition & renovation
- 2nd phase includes redevelopment of the Terrace; expanded seating, new stage area, new foodservice
- Includes reconstruction of the shoreline
- Coordinated with Alumni Park development
- Phase 1 start - June 2012; completion in 2014

Funding:
- $52 M – WI Union Program Revenue

Designed by Uihlein Wilson Architects and Moody Nolan
Alumni Park

- Terminus of 7 block East Campus Mall
- Celebrates the achievements of alumni
- Alumni Gift to the university
- Expansion of lakefront public greenspace
- Seasonal public access pier
- Start phase one in 2012, complete in 2017

Funding:
- $ 8.0 M – Gifts & Grants

Designed by Smithgroup/JJR
Questions?