

## **FACILITY DYNAMICS ENGINEERING**

**DAVID SELLERS, P.E.**

**PROJECT MANAGER / SENIOR MECHANICAL ENGINEER**

David Sellers is a Senior Mechanical Engineer who primarily focuses on existing building commissioning, technical training on commissioning and HVAC related topics, and third party control design work. Over the course of his 40-year career, David has had the opportunity to work on all facets of the buildings industry, including design, project management, mechanical and control system contracting and facilities engineering. This broad range of experience, which included work in the commercial, industrial, institutional and health care sectors exposed him virtually every aspect of the building design, construction and operation process. Specifically, his experience includes design experience in all project phases, equipment sizing/selection, construction document preparation, modeling, CAD, CPM scheduling, budgeting, cost/benefit projections and technical report writing. His field work has exposed him to system trouble-shooting and optimization, control system programming, testing and balancing, energy auditing and commissioning. He understands the challenges service providers have in demonstrating the value of commissioning, energy efficiency, and sustainability to building owners, and successfully bridges the gaps between architects, mechanics, engineers, and building owners. He is a Registered Engineer in Oregon and Washington and a FAA licensed Airframe and Power Plant mechanic. David has been with FDE since 2006; major projects include:

### **CONTROL SYSTEM DESIGN, ENGINEERING ANALYSIS, TRAINING, AND COMMISSIONING AND RETRO-COMMISSIONING**

#### **City of Seattle, Seattle, WA**

- Design lead for multiple fire station control system design projects, including preparing point lists, detailed narrative sequences, system diagrams, floor plans, and installation details. This work also includes field support during the bidding, construction phase, and commissioning phase of the project and troubleshooting during the first year of operation to resolve issues that come up as the systems are tuned to the dynamics of the building and the emerging design standards are enforced.
- Technical lead for developing the evolving control and networking standards for the Siemens sole source system that the City uses and defining how to best integrate it with proprietary vendor control systems like the Mitsubishi VRF system.
- Technical lead for developing standard logic diagrams and sequences moving forward for various system types as the City control standard evolves.
- Technical lead for engineering analysis and design review for various projects including the evolving Muni Tower central chilled water plant renovation project.

#### **Pacific Energy Center, San Francisco, CA**

- Technical lead for the yearlong Existing Building Commissioning workshop, a unique class where the students attend 14-16 sessions over the course of the year that combines lecture with hands-on lab sessions in various facilities that are used as living labs to teach EBCx skills.
- Lead instructor and developer of the Design, Performance, and Commissioning Issues classes, which are a series of day long courses focused on various HVAC equipment, system types, and techniques including Pumps and Piping, Fans, Ducts and Air Handling Systems, Chilled and Condenser Water Systems, Steam and Hot Water Systems, Variable Speed Drives, Economizer Processes, Variable Volume Systems, Control Systems, System Diagram Development, and Logic Diagram Development
- Technical lead for the EBCx Project Review classes, which are offered four times a year in an open format that allows graduates of the EBCx workshop series to bring questions about projects they are working on to the session for discussion with other students and the class instructors.

#### **University of California, Berkeley, Berkeley, CA**

- Project Manager/Sr. Engineer/Scheduler for multiple commissioning and retro-commissioning projects which include academic, research labs, clean rooms and athletic facilities. Projects include: Doe Library, Campbell Hall, Berkeley Stadium, Student Athlete Performance Center, Davis Hall (UC CSU Utility Efficiency Partnership 2012 Best Practices Award Winner), Sutardja Dai Hall (clean rooms), Life Sciences Building, Law Building Infill, LeConte Hall (UC CSU Utility Efficiency Partnership 2010 Best Practices Award Winner), Le Conte Annex, Barrows Hall, Latimer Hall and California Hall.

#### **California Department of General Services, San Diego, CA**

- Senior engineer for retro-commissioning for various DMV facilities in the San Diego area.

#### **Marriott Corporation, Multiple Locations**

- San Diego Marriott Hotel and Marina - Project Manager/Sr. Engineer/Scheduler for retro-commissioning, MEP master planning and control migration to the new 26-story, 1,417 room world class resort.
- Technical lead instructor for the Marriott Advanced Engineering Program

#### **Environmental Protection Agency, Multiple Locations**

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- Project Manager/Sr. Engineer for commissioning various lab facilities to the Environmental Protection Agency on the west coast which include: Corvallis Laboratory, Newport OR Facility and Manchester Laboratory.

### **General Services Administration, Seattle, WA**

- Seattle Federal Courthouse - Project Manager/Sr. Engineer for retro-commissioning of the 600,000 sf courthouse.

### **Constitution Center, Washington, DC**

- Sr. Engineer providing support to FDEs team for LEED Commissioning for a 1.4 million sf, \$220 million office building renovation.

### **Washington University – School of Medicine, St Louis, MO**

- Project Manager performing retro-commissioning services to the 170,000 sf McDonnell Medical Science Building and Biotechnology Center. The facility includes various labs and wet lab spaces, research areas, classrooms, offices and administrative space.

### **Additional Duties**

- David also develops technical guidelines published on the Energy Design Resources web site, maintains a technical blog titled *A Field Perspective on Engineering* and the related Commissioning Resources website, and teaches commissioning, retro-commissioning, controls, and HVAC fundamentals at PG&E's Pacific Energy Center, for Marriott International in their Advanced Engineering Program, for the US Army Installation Management Command and Construction Engineering Research Lab, for the Building Commissioning Association, in the University of Wisconsin's Professional Development Program, for SMUD's at Customer Service Center, and at SCE's Customer Technology Application Center. He also provides technical support and CPM scheduling support to other project leads as needed.

### **AWARDS**

- David was recently honored as the recipient of the 2017 Benner Award at the National Conference on Building Commissioning. The award is named in memory of Nancy Benner and recognizes outstanding achievement in making building commissioning "business as usual."

### **PROFESSIONAL REGISTRATION**

- Registered Professional Engineer – State of Missouri 019658
- Registered Professional Engineer – Mechanical – State of Washington 52574

### **EDUCATION Parks College of St. Louis University**

- B.S. Aircraft Maintenance Engineering, Summa cum laude
- FAA Licensed Airframe and Power Plant Mechanic

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### **PROFESSIONAL ORGANIZATIONS**

- ASHRAE Member
- Professional Engineer – Missouri 019658, Washington 52574
- BCA Member (former board member for the NW Chapter)

### **REFERENCES**

Ryan Stroupe  
Measurement Tools Program Coordinator  
Pacific Gas and Electric  
The Pacific Energy Center  
851 Howard Street  
San Francisco, CA 94103  
(415) 973-7257  
R2S2@pge.com

Barry Estes  
Director of Engineering & Facilities Services  
Marriott International, Inc.  
356 Gunning Bedford Drive  
Dover, DE 19904  
(302) 735-4847  
barry.estes@marriott.com

Jeremy Nichols  
City of Seattle  
Finance and Administrative Services  
Capital Development and Construction Management  
700 5th Avenue, Suite 5200  
P.O. Box 94689  
Seattle, WA 98124-4689  
(206) 684-0647  
Jeremy.Nichols@seattle.gov