

PSE T.I. For Lydig Construction & Bentall



PSF People - Gary Livers

The role of an Information Services Manager can be a daunting undertaking. The process of keeping networked systems up and running, files backed up, solving your everyday unusual program glitches, keeping equipment virus free, and general maintenance and repair of in-house and long distance equipment can be a harrowing job for even the most experienced person.

Fortunately for PSF, Gary tackles all of the challenges that he is thrown with ease. A former member of the Air Force Security Police, for the last six years he has been actively involved in the Air Force Reserves. Gary's current involvement allows PSF to make use of his wide range of technical knowledge and skills.

An avid sportsman, Gary enjoys fishing and hunting. He also enjoys spending time with his wife Carolyn, and their two teenage daughters Tiffany and Samantha who share his home in Yelm.



PSF was recently awarded 5 floors of tenant improvement work in the Puget Sound Energy building located on NE 4th Street in Bellevue. Lydig Construction approached PSF as one of three select bidders for this plan/spec project, ultimately selecting PSF to do the HVAC portion of the work.

The contact person for PSF was Andy Read, Sales/Project Manager, who did the upfront work in the bidding process. "There was a lot of pre-planning involved and we pursued this project aggressively so that we could get our proposal as sharp as possible."

One of the issues Andy had to address dealt with project logistics. The ductwork being transported by elevator into the space would need to be sectioned into five foot pieces. This makes material handling and installation more labor intensive. In addition to this, work is to be performed

only at night to avoid disruption to the existing tenants.

The HVAC system is VAV, using Nailor Fan Induction Terminal boxes. According to Andy, "the design is fairly straightforward, once we get one of the floors under our belt, the final four should go quickly because of the repetition."

The PSE T.I. is a quick turnaround project, scheduled to be complete in early spring.

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Demand Control Ventilation

Demand control ventilation (DCV) is gaining popularity with building owners and facility managers as a method to help save energy costs by reducing unnecessary ventilation while maintaining recommended ventilation rates. Proper ventilation rates have been a design concern since the introduction of ASHRAE Standard 62 in 1989, which has since been updated to 62.1-1999.

So just what is DCV all about? It's a method used to control the delivery of fresh, outside air based on the actual occupancy load of the building by monitoring the concentration of CO₂ in the space. CO₂ concentration is directly related to the number of occupants in a space, and can be used as an indicator to match outside air to changing occupant load over time. Typically, wall sensors are used to measure CO₂, although some manufacturers are starting to build their temperature sensors with CO₂ monitoring as standard. Current technologies have made these new sensors

accurate, requiring no calibration for five or more years.

A CO₂ based DCV system uses the CO₂ sensors to approximate the occupancy level for a particular building space. If there are just a few people in the space, the outside air dampers can be modulated to decrease the amount of outside air delivered. This reduction in outside air reduces the amount of energy consumed heating or cooling the ventilation air - and lower energy costs are an important factor in these days of ever-increasing utility rates throughout the country. Conversely if there are more people in the space, the system will adjust to this by bringing in more outside air.

Another reason to employ DCV strategy in buildings with variable air volume is that these systems often provide two to three times more air than the required design ventilation rate of the building. This happens because the 'worst case' zones set the ventilation

rate for the entire air handling system. With DVC, you have the advantage of providing the correct amount of outside air based on the instantaneous occupant loads, but not to the point of over-ventilating and using excessive energy based on a few high-occupancy areas.

The best way to save energy and provide building occupants the highest air quality is to use an economizer with an integrated DCV system. This system type can be used on anything from a built up direct digital control (DDC) system to a small, stand-alone air handling unit. There are as many as five million buildings in the US, of which half do not have economizers. These buildings are good candidates for a much-needed upgrade, which could also employ a DCV system upgrade at the same time. In many instances the time involved to retrofit a mechanical system is no more expense than a few day's labor, with the controls modifications being relatively simple.

PSF Conducts HVAC Systems Seminars

PSF conducted on-site seminars for two prominent local architectural firms, Collins-Woerman Architects and Mulvanny G2. The subject of the seminars was "*HVAC Systems*" - Why Would Architects Want To Know More About HVAC Systems?

One reason would be to get a better understanding of mechanical terminology and equipment (so what is the difference between a fluid cooler and a cooling tower anyway?).

Another reason is to understand why we apply certain types of equipment on one building, but not another. Also mechanical equipment and systems impact more than esthetics; roof screening, mechanical rooms, shafts, louvers, and building structure are all affected

by the mechanical system design.

Early and accurate coordination are critical to a well matched building/HVAC design. Overall building efficiency, compliance with energy codes and installation costs are all affected by the early system design decisions.

PSF is prepared to conduct a seminar for you - in our office or yours. HVAC systems, energy codes, indoor air quality, and under-floor air delivery, are some sample subjects. Keep us informed on what you would like to know! Combine a seminar at PSF's offices with a tour of our production facility. For more information, contact:

Jim Reynolds at (206) 764-9663



Who Are WE(A)?

Quadrant Commercial is developing another high quality office project in the East Campus Corporate Park in Federal Way. The Northlake Building comprises 60,000 square feet on two floors, designed by Lance Mueller and Associates of Seattle. Interior design is by BLR&B of Tacoma. Dale King, Principal and Ryan McKinney, Project Manager of GLY Construction lead the "team-build" construction efforts.

The building provides for typical office use, as well as special use areas for seminars, staff meetings, training programs and board meetings. These special use areas are provided with stand-alone VAV HVAC systems to allow for off-hours use without impacting adjacent office areas. In addition, the high-occupancy needs for ventilation may be satisfied without placing an undue energy consumption burden on the central HVAC systems serving the adjacent office spaces.

WEA (Washington Education Association) will be occupying the building. WEA was established in 1889 (one year before PSF Mechanical was originally established as "Puget Sound Sheetmetal



Works"). At this time the WEA has approximately 75,000 members who are supported by their 160 member full-time staff.

The WEA will be moving from their current Federal Way location to the new building in March of 2003. They will be retaining their current offices in Olympia and Spokane.

The WEA provides its members with a multitude of support services and educational training as well as research information relevant to the educational field. More information on the WEA may be found on their web site www.wa.nea.org.

The 'King' Returns

John King returns with an additional seven years experience working with the Design/Build marketplace in Seattle; a little older, much wiser and displaying his trademarked upbeat can-do spirit. John is capable of taking on most any type of mechanical construction project. His personal hands-on style is a good fit at PSF, where sales, project management, engineering and estimating skills are all part of the customer service picture.

John excelled as a project engineer, then project manager at PSF. He returns with an even deeper knowledge of

HVAC, piping and plumbing systems, and expanded capabilities and experience in estimating, project management and customer sales and support.

We are excited to have John back on board, please join us in welcoming him home.



Mowat Renewed

Mowat Construction's remodel of their home office is complete. The 20,000 sq. ft. office in Woodinville received a new look that was completed in less than three months time.

PSF was brought on board as a negotiated design/build mechanical team member. In the new design, PSF replaced several aging Trane units with a new Aeon VAV unit, introduced all new Fan Induction Terminals, and replaced the outdated pneumatic controls with a new direct digital control systems. Eddie Shahwan was the project engineer. "It was a very challenging project because it is a 20 year old building, and we had very little to go on as far as as-builts." Eddie worked closely with Joe Marshall, PSF's project foreman, who helped make sure what was drawn or about to be drawn would fit. Joe also worked with John Sandstrom, the president of Mowat Construction, getting his input as to what he was looking for in the finished product. Joe provided detailed schedules to all of the contractors on the project, keeping everyone in the loop on the time-sensitive project. John Sandstrom praised Joe for his professional attitudes and solid work ethic.

John Parks was the Project Manager for PSF. "Once we got into the job we found a few surprises, but for the most part the job went cleanly. Overall I think it was a successful job, thanks to everyone involved."



Winter Projects

The following are projects that PSF will be working on this year:

Pearson Law Offices T.I.

- Scope: Design/Build Office
- GC: GLY Construction
- PSF PM: Will Thompson

Redmond Ridge A & B

- Scope: Design/Build Retail
- GC: GLY Construction
- PSF PM: Walt Clear

Tiger Mountain Generator Addition

- Scope: Design/Build Industrial
- GC: Merit Construction
- PSF PM: John Parks

Childhaven

- Scope: Design/Build Office
- GC: GLY Construction
- PSF PM: Walt Clear

Where There's A Will....

PSF has expanded their "reach" with the addition of Project Manager Will Thompson. Will has extensive experience from the "wet side" of the mechanical design/build and plan/spec installations. Will is a graduate of Central Washington University, has a BS in economics, and has been working in the mechanical industry since 1991.

Will's project experience is diverse, including examples such as the Intel DP3 project in DuPont, the "Allen" hangar at Boeing Field, Children's Hospital Surgery and Emergency Suites and D-Wing projects, plus the Boeing 3-324 Jet Propulsion Building in Seattle.

We are excited to have Will on board to help insure that we continue to deliver the quality projects our customers have come to expect.



Like to get on our mailing list? Send your name and address or email address to: sales@psfmech.com

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