

Monthly Newsletter

John W. Baumgarten Architect, P.C.

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John Baumgarten
R.A., AIA, NCARB, LEED

Do You Know That...?

- Our office is currently working on several Assisted Living Projects located within or adjacent to Skilled Nursing Facilities.

These 30 bed ALP Units complete a vital link in the continuum of care.

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Pushing the Envelope – Energy Efficiency

A high percentage of health care facilities in our region predate 1980. These older physical plants are characterized by mechanical systems that are approaching the end of their useful life and by building envelopes which do not meet current energy conservation codes.

The costs of operating these older buildings continue to skyrocket in lockstep with energy and utility costs. These costs have hit such high levels that a tipping point is being reached where much of the capital investment needed to upgrade physical plants can be offset by energy savings and government grants.

A four pronged approach is most often utilized to optimize a building's energy performance: tighten the envelope by replacing roof and window systems with better insulated ones; install more efficient equipment such as variable speed fans and motors; use alternative energy sources such as cogeneration to take advantage of surplus power and waste heat; and utilize a building management system to facilitate a preventative maintenance system and allow systems to be monitored and adjusted for optimum performance.

Today's modern membrane roof systems have highly reflective (white) traffic surfaces which reflect UV radiation and prevent the rapid deterioration of asphalt products. These white membranes also reflect heat which helps to reduce a building's air conditioning load.

Variable speed equipment (fans and motors) can be adjusted to meet exact load conditions resulting in less wasted energy. Lighting upgrades which incorporate high efficiency lamping and ballasts can significantly reduce lighting costs. Many utility companies and some governmental agencies offer grants and rebates which can offset much of the cost of these fixtures.

Cogeneration utilizes equipment with a natural gas fuel to generate electricity which can be used to power in-house equipment and/or be sold back to the utility company during peak periods. Waste heat from cogen radiators and exhausts generates hot water via heat exchange. This hot water can meet hydronic and/or domestic usage demand. In this scenario, a facility's existing boiler plant becomes a back-up system when hot water demand exceeds cogen system capacity.

Building management systems allow the physical plant to be monitored and controlled on-site or remotely from a computer. Preventative maintenance schedules are overlaid ensuring their timely management and implementation.

John W Baumgarten Architect, P.C.: Innovative & Experienced

- *Specialists in the planning of complex, phased health care projects.*
- *Over 40 years of combined health care design excellence.*
- *We feature principal and associate level management.*
- *The majority of our clients utilize our services on a continuing basis.*
- *We have earned a solid reputation with State and Local Health Agencies.*
- *A full service team with a personal approach.*
- *We understand how your business works and will serve as a strategic planning partner.*
- *A reputation for bringing in projects on-time and on-budget.*
- *An integrated multidisciplinary design approach focusing on the total project.*
- *We offer project management as a value added service -- coordinating the efforts of a professional consulting team.*
- *LEED Certified Professional Services.*