

# **Addendum to Energy Audit Report—**

## **Corrections, Comments, & Updates**

as of 2-9-09

respectfully submitted by Ron Prosek

1. Church Custodian Richard Yukl corrected the information conveyed in the report which had stated that the EXIT signs were mostly burned out (*page 15*). He checked them all a few days ago and found that all were in operation. He also discovered that all the lamps in the signs appear to be LED lamps. (In the report, Renaissance group had recommended that we change over to LEDs in the EXIT signs.)
2. Concerning the recommendation (*page 3*) that we change all our T8 fluorescent lamps in the church to T5s (smaller diameter, which uses less energy), Richard pointed out that this will produce less light. (This may or may not be acceptable.) He also pointed out that the ballast AND the receptacles for the bulb plug-ins would have to be altered for such a change. He further warned that changing the current electronic ballast would have to be done carefully. If we used a non-electronic ballast, we would likely have a continual buzzing sound coming from the fluorescent lamps.
3. The Renaissance group recommended that we replace all the outer ring (tube lamp) incandescent light bulbs with fluorescent (dimmable) lamps to save energy (*page 3*). Richard Yukl observed that actually these lamps add very little light for daytime services such as the Sunday morning service. He suggested that we just discontinue using them altogether in the daytime. They could be used for such evening services as Christmas eve when they could be used to add a pleasant ambience to the sanctuary. Such an infrequent use might obviate the need to replace the bulbs.
4. In discussion with Dan Bond and Marianne Hawson regarding the halogen “torches” in the back of the choir section, it was suggested that these probably should be replaced with one or two fluorescent lamps—not necessarily torches. The halogen lamps use a large amount of energy and burn very hot, making them dangerous.
5. The Renaissance group had recommended that we replace our current refrigerating water fountains with non-refrigerating fountains or that we disable the cooling components since they use quite a bit of energy (*page 14*). Richard Yukl reported that the refrigerating units were not working anyway because their thermostats needed replacement. He suggested that we just not replace the thermostats. He agreed with the Renaissance Group that the water in the building remains sufficiently cool without refrigeration.
6. Richard Yukl has been experimenting with using only a single bulb in some of the fluorescent lamps in some areas of the building—excluding the sanctuary (e.g., in the restrooms). He wants to see how much energy this will save and what effect this will have on the life of the bulbs and the ballast.

7. I have already worked with Richard Yukl and Dan Bond in experimenting with reprogramming of the thermostat in the sanctuary (*recommendations page 11*). Last Wednesday and the Sunday following, we monitored the new program, and it seemed to be working. The thermostat was set keep the sanctuary at 50° F when not in use but to begin ramping up to 68° F one-half hour before use and then to ramp back down one-half hour before scheduled use was to end. This program seemed to be working properly for the choir rehearsal on Wednesday evening and for last Sunday's service. However, Marge Hill and Judy Willour (Music Committee) are concerned that the wider temperature variation may cause the piano to go out of tune more frequently. This would then involve more expense in having it retuned more often. Monitoring of this phenomena over time will give us a better understanding of its significance and seriousness.
8. I apprised Dan Bond of the energy loss situation from the soon-to-be remodeled AC closet in the sanctuary (*page 12*). Dan assured me that he would convey to the remodeling contractor the need to make sure the insulation that is slipping is pulled back into place and that a vapor barrier will be installed over this insulation.
9. Richard Yukl advised me that he has also been reducing the number of lights that remain on in the Beacon as security lights. This will save energy. He likewise has reduced the security lighting in the hallway in the south end of the building. This lighting had been excessively bright.