

5. Write a solicited proposal for one of the topics listed in Exercise 4 or for a topic that your instructor approves. Do this exercise as a collaborative project. Review Figure 13.5.
6. Write an appropriate proposal—internal, solicited sales, or unsolicited sales—based on the information contained in one of the following three articles. Assume that your or your prospective customer's company or community faces a problem similar to one discussed in one of these articles. Use as much of the information in the article as you need, and add any details of your own that you think are necessary. This exercise can be done as an individual or a collaborative assignment.

a. Multiuse Campuses: A Plan That Works

Gaylord Community School in Gaylord, Michigan, is a bustling center of activity from the first light of dawn to well after dusk. People of all ages come and go until late into the evening for a multitude of activities that include attending classes and meetings, catching up with friends, getting a flu shot, and seeing a play. That's because in addition to a high school, the campus also includes senior and day-care centers, classrooms for adult education, an auditorium for the performing arts, a community health care site, and even a space that can be booked for weddings and other special occasions.

In Big Lake, Minnesota, elementary, middle, and high school buildings are all situated on one centrally located campus that makes up the entire Big Lake School District. Also included in this innovative layout are a state-of-the-art theater, a community resource center, and a multipurpose athletic arena, all of which are used extensively by the entire community.

Both the Gaylord and Big Lake schools are models of a growing movement toward multiuse community campuses that serve as "anchor[s] in the civic life of our nation," according to U.S. Secretary of Education Richard W. Riley. I recently had the pleasure of visiting Secretary Riley in his office. Also present were AARP President Joe Perkins and National Retired Teachers Association Director Annette Norsman, both of whom are involved in many facets of education and lifelong learning.

We discussed many things, including our concerns about the current increase in the number of students caused by the Baby Boom echo (children of the Boomers) and how that population is going to further stress the already crumbling infrastructure of American schools. We also talked about the need for resources—to employ more teachers, bring technology into the classroom, strengthen educational curriculum and opportunities for all ages—and the pressing need to build and renovate schools. That led to a discussion about the necessity and benefit of involving the whole community in the design and use of new school facilities. I always thought that it was a shame that the majority of schools are used only a third of the day, three fourths of the year, by only a fifth of the population. Considering that there will be more school construction over the next decade than at any time since the 1950s, it just makes sense to consider the intergenerational and community benefits of multiuse spaces, benefits that include everything from establishing better learning environments to getting more bang for the tax buck.

There are many additional bonuses for multiuse educational complexes: They create an exciting community hub, bring life and culture to a central area, and revitalize and nourish the neighborhood in which they are located.

It's a win-win situation for everyone involved.

Source: Horace B. Deets, "Multiuse Campuses: A Plan That Works," *Modern Maturity* (July–August 1999): 72. Reprinted with permission from *Modern Maturity*. Copyright © 1999 by American Association of Retired Persons.

b. Self-Illuminating Exit Signs

The Marine Corps Development and Education Center (MCDEC), Quantico, Virginia, submitted a project recently, to replace incandescent illumination exit signs with self-illuminating exit signs for a cost of \$97,238. The first-year savings were anticipated to be about \$37,171 with an anticipated payback time of 2.6 years—making this an excellent way to save money.

The primary benefit of these self-illuminating exit signs is that virtually all operation and maintenance expense is eliminated for the life of the device, normally from 10 to 12 years. Power failures or other disturbances will not cause them to go out. In new construction, expensive electrical circuits can be totally eliminated. In retrofits, the release of a dedicated circuit for other use may be of considerable benefit. Initial total cost of installing circuits and conventional devices approximately equals the cost of the self-illuminating signs. Installation labor and expense for the self-illuminating signs is about that of hanging a picture.

The amount of electricity saved varies and depends on whether your existing fixtures are fluorescent (13 to 26 watts) or incandescent (50 to 100 watts). Multiply the number of fixtures $\times$ wattage/fixture $\times$ hours operated/day $\times$ days/year = KWH/year savings. For example, assume:

$$\begin{aligned} &400 \text{ incandescent fixtures} \\ &\$0.08/\text{KWH } 0.05 \text{ KW/fixture} \\ &24 \text{ hours/day } 365 \text{ day/year operation} \\ &400 \times 0.1 \times 365 = 350400 \text{ KWH/year} \\ &350400 \times 0.08 = \$28,032/\text{year for electricity} \end{aligned}$$

Now add in savings achieved from reducing labor to change bulbs; avoiding bulb material, stocking, and storage costs; avoiding transportation costs involved in bulb changes; and reusing existing bulbs.

The above savings can be significant. For the MCDEC Quantico project, estimates of bulb change interval and savings were 700 hours (29 days) and \$13,512/year when all factors were considered.

The cost of a self-illuminating sign depends on whether one or two faces are illuminated primarily and varies between different suppliers. Single-face prices will likely be \$100 to \$150 while double-face prices may be \$250 to \$330. The contractor at Quantico found better prices than these ranges indicate. The labor cost should be about \$10 per sign.

If you can use an exit-sign system with high dependability, no maintenance, and zero operations cost in your retrofit or new construction projects, try a self-illuminating exit-sign system in your economic analysis today. "Isolite" signs, by Safety Light Corp., are listed as FSC (Fire Safety Code) Group 99, Part IV, Section A, Class 9905 signs and are available through GSA contract. Contact Gerald Harnett, Safety Light Corp., P.O. Box 266, Greenbelt, MD 20070 for more information.

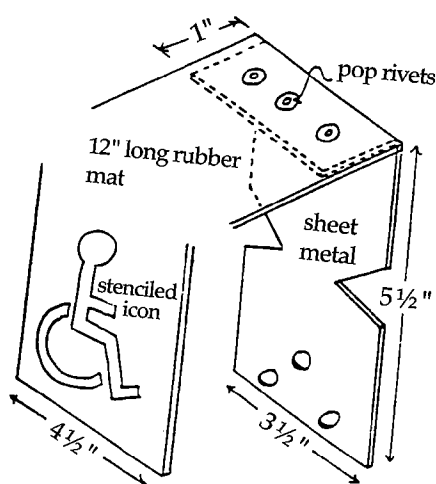
c. Wheelchair-Lift Switch Covers

In order to ensure year-round access to the Springfield Armory National Historic Site (Massachusetts) museum, Michael C. Trebbe designed the cover for switches on wheelchair lifts. During the extreme New England winters, the switch buttons would freeze, thus making the lift inoperable, and would require several hours to thaw. The installation of these covers prevented the freezing of the switch buttons and, therefore, allowed maintenance personnel to attend to matters such as snow removal.

The covers were made of materials found on site, which resulted in the covers being almost cost free. The covers can be quickly built, and they are mounted with the same mounting screws as the switch boxes so as to not destroy any original fabric (in the case of Springfield Armory NHS, brownstone). The materials used included

- 1/8-in. by 4½-in. by 12-in. piece of rubber mat
- 3½-in. by 6½-in. piece of sheet metal
- three aluminum pop rivets
- primer for the sheet metal
- wheelchair icon stencil
- white paint for the icon

The sheet metal is bent to a 90-degree angle at the 5½-inch point. The lowest two holes (see diagram) are drilled to mount the screws on the switch box, which also secure the cover. Triangular cutouts and other holes are drilled for the clearance of the housing screws on the rear of the switch box (see diagram).



The disability icon is stenciled on the front of the piece of rubber mat using white paint.

7. Write a research proposal on which the report on recruiting and retaining multinational workers in Chapter 15 (pages 702–718) could have been based.
8. Write a research proposal, similar to the one in Figure 13.8, to your instructor seeking approval for a research-based long report. Do the necessary preliminary research to show that you have selected a suitable topic, narrowed it, and identified the sources of information you have to consult. List at least six relevant and recent articles, two books, and several websites or professional blogs pertinent to your topic.