

Planning and designing for waste/recycling process flow

BY MARK LESTINA AND PETER LOBIN

As waste and recycling consultants, we have worked with many facilities to help improve waste-handling efficiencies and increase recycling. Often, we are brought in to solve problems and provide solutions to waste stream issues after a spectacular but not always highly functioning facility has been completed. We usually find that most negative situations relating to waste process flow could have been avoided at the design phase if the process had included a thoughtful discussion between hospital staff and experts from the waste-disposal industry.

Often, for example, the client asks the architect to provide for a couple of dock spaces and a few soiled utility closets for trash disposal. Garbage handling can comprise a large part of day-to-day activity in any environmental services department. Proper handling makes a hospital or medical center efficient, allows caregivers uninterrupted time with patients, and adds to a "good neighbor" image within the community. Poor handling can be an unruly expense, cause friction among workers and patients, and potentially expose the facility to front page headlines, earning it bad publicity.

In healthcare, the number one consistency we encounter is the lack of facility planning when it comes to waste-process flow. The effect of poor up-front planning by the architectural team almost always hinders the hospital's abil-

ity to meet its patient-care mission. Most times we find ourselves working around the design rather than using it as a resource.

Poor design affects space, time, labor, and costs for the life of the building. A design that takes into account how and where waste and recycling is handled will bring efficiencies to the process that will improve the hospital's ability to fulfill its mission. However, looked upon as a necessary evil, waste and recycling process flow becomes an afterthought rather than something recognized as essential to environmental planning success.

Usually, the answer is not to build the largest possible dock space for garbage pick-up. For example, our experience shows that collection locations within the facility are just as important as the disposal location on the dock. Put another way, in the event of an employee slowdown or an issue that reassigns housekeeping staff away from their regular duties, the potential for waste and odor problems can increase exponentially and ultimately affect patient's comfort if proper design isn't taken into account.

When deciding on dock space allocation for waste and recycling, the variables involved are considerable. Dock space is obviously the first variable. How many spaces should be planned, and which ones will be allocated to waste and recycling? Recent hospital designs are trending (space permitting)



towards separating a clean from a dirty dock. Most hospitals, of course, will not have that luxury, instead trying to squeeze everything into half the required space.

Consider this hypothetical solution: You have allocated three or four dock spaces to waste and recycling and have five waste/recycling streams. These spaces are located at the far end of the dock from the entrance leading to the hospital for aesthetic reasons. How do you squeeze five waste/recycling streams into four dock spaces? Which container would you place first as your employee is walking toward the end of the dock? Should the recycling containers be easier to reach and use versus the trash compactor? Would this create an environment that would encourage recycling? Do you bale the cardboard? Depending on current operating procedures in the hospital and employee knowledge/experience, your answers might differ. However, this situation occurs all the

time after the facility is built. We would recommend addressing these questions prior to facility construction.

Finally, it is important to consider the location of recycling containers within patient-care areas, research locations, office space, and other nonclinical areas. Usually the use of satellite collection areas will ease the burden on housekeeping staff who are gathering recyclables. If not properly thought out, employees will be discouraged to learn that the collection area is "down the hall, make two lefts, and go up the stairs."

Combining a design team's expertise with a team of waste experts ultimately adds value to the final product. Instead of having to fix a waste issue that had not been thoughtfully incorporated into the initial design process, the client receives value-added efficiency up front, earning the design team the reputation of creating truly "intelligent" design showing insight and vision into the client's important and basic needs. **HD**

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