



# SANITARY BUILDING DESIGN TO ENHANCE LONG-TERM PEST MANAGEMENT



When key stakeholders of a business make decisions on building design, they must look further than how their facility looks. Making moves to ensure the foundation is structurally sound and safe for the workers and public is essential. Additionally, taking steps to block out small, unwanted intruders will keep the building in pristine condition. This is where sanitary design comes in.

## The monetary concern

According to Dusana Bondy, a Technical Support Auditor in Abell Pest Control's quality assurance department, sanitary design must be taken into consideration for new buildings as well as existing facilities that are at risk for dealing with a pest problem.

"Sanitary design is when an establishment like a hospital or nursing home is designed in such a way to prevent pests," Bondy explained. "That would mean that there are no cracks and crevices for pests to breed and surfaces are easy to clean so food won't accumulate. Sanitary design is pest prevention."

Knowing what sanitary design means at its core, it's hard to understand why some businesses might be resistant to considering it during construction. However, there are numerous reasons why sanitary design could be overlooked or pushed behind other priorities. From a monetary standpoint, businesses might be resistant to making design adjustments if their facility already exists. But if there are missing tiles or grout in the foundation of a building, they could be allowing pests to come in and breed. To eliminate such an issue, the business must clean the surface and redesign the floor to fill the cracks and crevices. This takes a large amount of effort and human resources, which ultimately results in budgetary uses.

"If we get a brand new building that has just been designed or built, the client is more interested," said Bondy.

Sanitary design makes it easier for businesses to clean and eliminate food sources for existing and future pests. While the idea of spending a large portion of funds on modifying the working environment can make stakeholders feel unsure, sanitary design can save money in the long run and reduce the possibility for pest occurrences in the future.

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## When it's time to consider sanitary design

While monetary concerns may be keeping businesses from considering sanitary design, there are red flags that shouldn't be ignored. Pest presence is the No. 1 indicator that it's time to reconsider the current layout of the structure. Then, it's time to think about how much time is spent cleaning the surfaces and pieces of equipment where the pests are most commonly gathering. Bondy explained that food packaging areas, in particular, can accumulate a lot of product, whether it's the way it's designed or how it's getting cleaned. By investing in sanitary design, the company can save time, effort and money in the long run.

"We're going to design this piece of equipment so it doesn't collect as much food and it's going to save on the hours toward cleaning and also allow it to produce more," Bondy explained. «Yes, sanitary design tends to be that investment. We're going to fix this for you, but it's going to save us time.»

## Stored product pests

When it comes time to consider sanitary design, there's one specific group of pests that it will impact the most: stored product pests. These are beetles and moths that infest store products that most likely come from mill processing facilities. Preventing such pests means understanding how the equipment works and where it's placed within the facility.

"For example, in a bakery or mill-type setting, the equipment rests on the floor and there's a dried product, it's usually flour dust that seeps into the cracks and crevices, ultimately providing a food source for the stored product pests," said Bondy.

A sanitation design team will start by filling the cracks and crevices of the structure with sealing that no longer allows the product to enter. Then, it's time to consider the equipment. How is it installed? Is the footing designed well? Bondy recommended designing equipment with a conical shape so that product slides off and doesn't accumulate. Instead, it touches the floor where it can be easily picked up and disposed

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## Modifying the work environment

Facilities interested in taking advantage of sanitary design must take the following steps to ensure their buildings are structurally capable of preventing pest breeding that could ultimately squash the bottom line:

- Take care of the exterior foundation - All structural foundation should be solid concrete with no direct soil contact to eliminate crawling insects from entering the premises.
- Block the support beams - Build brick walls around support beams, as these items are sometimes impossible-to-clean cavities that allows pests to thrive and breed.
- Examine the structural and working surfaces - Support beam bases should be cemented at 60 degrees and angle iron should be inverted. This ensures an easy clean surface so that product is less likely to accumulate, reducing food sources for stored product pests.
- Monitor the floors - Floors should consist of an epoxy coating instead of tiles and all cracks should be filled with grout to keep pests from breeding.
- Check drains and pipes - All drains should contain strainers that are monitored regularly to prevent food particles from entering and clogging drains. Horizontal pipes should be at least four inches from all walls. When pipes are lined up adjacently, crevices are created that trap solids and encourage pests to gather.
- Don't forget electrical panels and conduits - Panels and conduits should be sealed and inspected on a yearly basis to ensure pests are eliminated.

Those who own or work in new buildings and existing structures should consider sanitary design as an investment in the future. Following a simple design and monitoring the working environment on a regular basis can save the company time and effort in regard to cleaning and pest control, ultimately eliminating the risk of a pest-breeding environment and saving monetary units in the long run.

### Sources

Interview with Dusana Bondy of Abell Pest Control.  
Article written and provided by Dusana Bondy

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