

# SLOAN®





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## Executive Summary

Public restrooms in commercial buildings are undergoing a shift due to a number of societal, health-related, and technological factors. While touchless fixtures in restrooms are not new, the COVID-19 pandemic has generated greater interest in these products and the desire for an entirely hands-free experience in public restrooms. Additionally, public discourse around gender inclusivity is changing the way interior designers approach the design of these facilities, as reflected in changes to international building codes, as well as the rise in more all-gender/family style restrooms in commercial buildings.

Sustainability and wellness continue to be a high priority among most designers, even as demand for LEED- and WELL-certified projects is relatively low, with many clients opting to apply sustainable design principles without incurring the additional costs of third-party certification. Still, as hygiene is tied to health and wellness, there is an increased awareness of the importance of handwashing in a post-COVID world.

This report analyzes current industry trends; highlights relevant content from magazine articles about the design of commercial restrooms today; explores in-depth focus groups with a number of interior designers; captures the opinions of hundreds of design and building industry professionals about touchless technologies; and offers recommendations in response to the data collected.

## Discovery: What the Market Is Saying About Commercial Restrooms Today

There is a wealth of information on the design of commercial restrooms in the market, particularly as it relates to changes stemming from the pandemic, perceptions, and practices around hand hygiene, as well as all-gender restroom considerations.

Industry data from various sources speculate on the ways in which the design of restrooms will change in the near future; how handwashing and personal hygiene have fluctuated during the early and later stages of the pandemic; gender-related design considerations that need to be taken into account when planning public restrooms; and the role of touchless technologies in a post-pandemic world.

Several of Sloan's products are also included to provide a glimpse of the types of hands-free solutions that are being offered to the design community at large.

Following is a summary of the data pulled from these various sources that provide insight into what the market can tell us about commercial restrooms and key issues interior designers are facing today.

## INDUSTRY SNAPSHOT

After mining existing data on commercial restroom trends, four key areas of consideration emerged:

### 1. Design and Space Planning

COVID-19 has made a permanent mark on the perception, functionality, and design of commercial restrooms. "Just as 9/11 changed air travel and the iPod transformed how we listen to music, the coronavirus pandemic will forever change public restroom design and how people perceive—and respond to—restrooms' cleanliness and safety," wrote Kris Alderson in an article on post-pandemic restroom design trends. While cleanliness has always been a goal in designing restrooms, Alderson continued, coronavirus has increased the need and expectation for creating hygienic, sterile and safe environments.

The design of most existing commercial restrooms in the U.S. are rife with problems around privacy, cleanliness and comfort. Toilets without lids, for example, can spread germs into the atmosphere and clothing when flushing (known as "toilet plume."), rendering handwashing ineffective. Adding lids to public toilets, utilizing touchless fixtures and faucets and closing off stalls may be able to address some of these issues.

As a result, there's been an uptick in requests for materials that allow for cleaning with more intense chemicals or those that inherently resist dirt. Non-porous, solid-surface counters and sinks, for example, perform well in these environments without sacrificing aesthetics.

Antimicrobial finishes and materials are being considered more frequently, particularly those that have inherent antimicrobial properties such as copper. [Editor's Note: It should be pointed out here that there is growing concern among design practitioners about antimicrobial treatments that may contribute to more resistant strains of bacteria, possibly rendering those treatments ineffective at best and problematic at worst.]

The layout of commercial restrooms also needs to be reconsidered—but reinventing the wheel isn't necessary. Design elements

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like eliminating doors, adding S-curved and automated doors, and widening doorways are also gaining traction.

Wet floors continue to be another problem encountered regularly in commercial restrooms that needs to be addressed in their design, as they can breed bacteria and cause slips and falls. To avoid wet floors, Kempen suggested locating soap and drying options close to sinks so people needn't move from the sink with wet hands. "I see a big opportunity for sleek all-in-one hand washing fixtures that have the soap, faucet, and dryer all in one unit to contain water," she said.

Fortunately for designers, those all-in-one solutions are already available for specification. Sloan's [AER-DEC® Integrated Sink](#), for example, is an ideal innovation for any high-end washroom. Soap dispenser, faucet, hand dryer, and sink basin all designed to work together as one elegant, touch-free, hygienic, highly efficient system. The AER-DEC Integrated Sink saves space and allows for a cleaner design by moving soap and hand dryer to the deck, and all three deck components are touch-free to promote hygiene.

According to Rick Marencic, design principal and studio leader for JCJ Architecture, the future of public restroom design will be determined through a combination of processes: analyzing user needs; applying state-of-the-art technology to address resource conservation, safety, and cleanliness; and efficient planning with regards to privacy, accessibility, and inclusivity. "When combined with a considered use of materials and fixtures for appearance retention and cleanability, these factors will deeply improve the customer experience across market sectors," he said.

## 2. Touchless

Recent studies have found that the majority of Americans prefer to have touchless fixtures in public bathrooms to avoid touching handles and other high-traffic surfaces. Taking evasive measures to avoid germs is fairly common today, and people actually prefer to frequent businesses with cleaner bathrooms and touch-free experiences than those that don't.

When it comes to which fixtures Americans prefer to be touchless, the toilet flusher, faucets, and entrance doors top the list, with hand dryers, paper towel dispensers, soap dispensers, and stall doors following them.

"Sloan has placed a high priority on touchless restroom products ever since it debuted the first hands-free sensor faucet in 1974, and sensor flushometer in 1980" said Morgan Kish Sloan senior product line manager for faucets, soap dispensers, and hand dryers. "Now, nearly 50 years later, we have carried that same approach to every product we develop across the entire restroom, while also taking innovation a step further. For example, new products like Sloan's BASYS® Guided Handwashing Faucet are not only touchless, but an LED screen provides self-guided instruction for users to follow a five-step CDC-approved hand-washing process."



Making the commercial restroom a touch-free experience is no longer a "nice to have" option—it is becoming a must for public health and safety to help reduce the risk of spreading the virus, and architects, designers, and facility managers alike should certainly reconsider their current selections, according to a recent *FacilitiesNet* article, "Coronavirus Has Made

Touchless Restrooms a Must.” Further, the article noted that the demand for a touchless experience “will fundamentally alter the way materials are chosen for commercial restrooms. As such, solutions that require little or no contact should take priority when re-evaluating the way a restroom is outfitted in the pre-vaccine world.”

Given the profound impact of the pandemic on every industry, it stands to reason that building codes in the future may require touchless restroom features. “There are not any such requirements now, but cities are moving toward requiring touchless in all public restrooms,” Foley said. “I see it coming.”

### 3. Hygiene

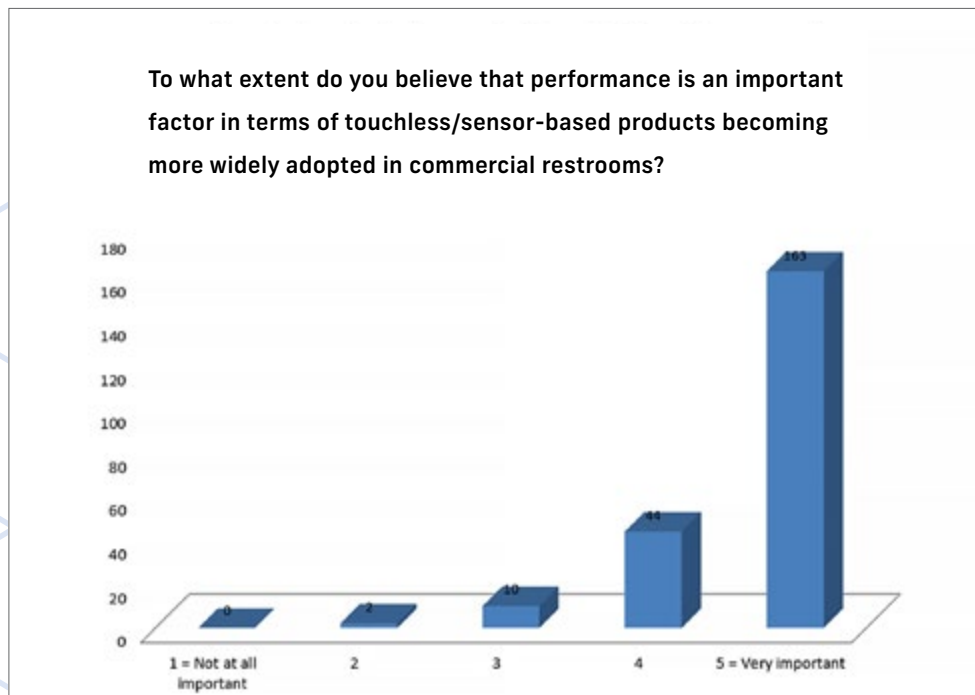
“[H]ygiene is the new gold standard in restrooms,” Alderson noted. The general public, which has become accustomed to the expectation for enhanced cleaning protocol in facilities, will likely continue to judge buildings and businesses by that elevated cleanliness standard.

A number of surveys on public perceptions of hygiene and handwashing habits since the onset of the pandemic reveal that attitudes and etiquette around hygiene are important to a

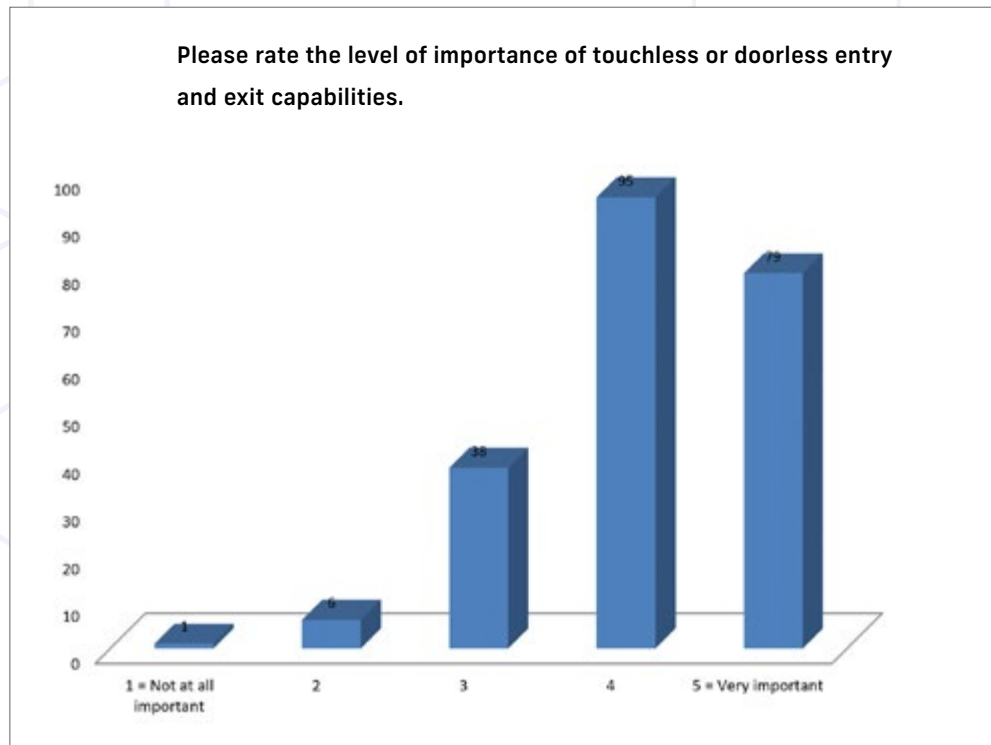


majority of respondents, although there is a disparity between perception and practice in many cases. Following are statistics gathered from several recent surveys:

In spite of the fact that handwashing is known to help reduce the spread of outbreak-related pathogens and can reduce acute respiratory infections by 20%, the American Cleaning Institute (ACI) reported a 14-percentage point decline in frequent handwashing since the start of the pandemic, according to a new



Source: 2021 Sloan Interior Design Survey



Source: 2021 Sloan Interior Design Survey

national survey. In contrast to the decrease in handwashing, use of hand sanitizer has surged since the beginning of the pandemic (62% in September vs. 46% in March). Only 10% of Americans say that they have not made any changes to their hand hygiene practices since the spread of COVID-19. [Editor's Note: Since January 2021, the rise in COVID-19 cases has risen sharply due to the Delta variant, and as such, this data may have changed. It does suggest, however, that handwashing habits may worsen as people perceive the threat of infection to be lower or due to the news that the vaccine was approved for emergency use in November 2020, for example.]

Interestingly, a new survey of interior designers from Sloan found that respondents indicated hygiene and safety were an important factor when specifying commercial restroom products, scoring an average of 7.3 out of 10 points. Further, 45% of respondents expect the number of requests for handwashing stations outside of the restroom to increase in the next three years.

The relaxed approach to handwashing is in stark contrast to the vast majority of Americans (81%) who say they are concerned about contracting COVID-19, with just 53% of respondents indicating they wash their hands after returning from a trip outside the home, down from 67% last April.

#### 4. Gender/Inclusivity

While many state legislatures have debated "bathroom bills" in recent years to more clearly define access to public restrooms by gender or transgender identity, it's not the first time bathrooms have been at the center of political debates. Racial segregation stemming from Jim Crow era laws extended into the 1960s before black people were welcome in public restrooms.

"But for as long as restrooms have been instruments of exclusion, their conception as being intrinsically tied to gender is relatively short," said Ben Garbow, designer at Payette, in an online article<sup>11</sup>. "In fact, public restrooms have only been separated by gender since the mid-1800s."

With the movement for trans rights and evolving conceptions of gender reaching the mainstream, gender-coded spaces are being rethought in design-centric terms for the first time, Garbow noted.

One of the challenges with creating inclusive and safe public restrooms for all genders and identities is building codes. In 2018 the International Building and Plumbing Codes (IPC) were updated to include gender-neutral restrooms as proposed by the American Institute of Architects (AIA); however, regulator codes demand a

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specific ratio of male/female ratios for restroom design, and there is no “one size fits all” approach to gender-neutral restrooms or how many should be included within a building.

Unisex or “family restrooms” that are ADA-compliant have become increasingly popular in high-traffic environments like airports and highway rest areas, which solve many of the gender-sensitive challenges we face today. “Separate and private ADA or family rooms are the closest thing that comes to mind when considering the ‘how’ in accommodating these sensibilities,” said Angie Lee, partner and design director of Interiors at FXCollaborative<sup>13</sup>. Lee noted that providing additional toilet facilities to meet the needs of people who simply don’t feel comfortable sharing the same space as a colleague of the opposite sex doesn’t necessarily need to be a “deal breaker.”

However, these facilities can be difficult to scale where space is at a premium and can add additional expenses to a project budget.



Fortunately, a new multi-user, all-gender template is emerging that can foster a greater sense of dignity and inclusion for all types of people. One way to create a practical, trans-friendly restroom is to divide each stall into a separate chamber using full doors for increased privacy, said Lisa Selin Davis in an online article.

“In the ideal unisex restroom (and the most flexible budget),

some stalls will have it all: a urinal, a toilet, a shelf for your phone ... a nursing chair, a mirror, and fixtures for wheelchair accessibility,” she pointed out. “Larger establishments should be able to offer a mix of multi-user restrooms and some standalone rooms. Urinals can be kept in the larger unisex restroom, but cordoning them off to one side, perhaps with a privacy wall.”

Garbow argues that language and signage are an important element in the inclusivity equation. “[P]assive terms like ‘gender-neutral’ or ‘unisex’ can be read as being dismissive of gender. ‘All-gender’ is explicitly affirmational and inclusive of all gender identities,” he said. “It is also, increasingly, the terminology adopted at institutions (like universities) that have made a point of adding these facilities.”

Recent examples of all-gender restroom signage range from comical (with pictures of aliens and mermaids, for example) to confusing (split male/female icon) that, while well intentioned, should be avoided. Many advocates and LGBTQ+ users have raised valid concerns that it plays into problematic stereotypes about trans people and, again, reinforces the gender binary, according to Garbow.

The solution is incredibly simple: a picture of a toilet. “Users understand what a sign with a toilet communicates: it’s what you encounter in a restroom,” Garbow explained. “Men’s restrooms can include an icon of a urinal to accurately reflect what specific fixtures users can expect to encounter. The toilet sign is such a bluntly elegant design solution that seems obvious in retrospect, but it requires a subtle and important shift in thinking—that signage should place emphasis not on who can use a restroom, but what is in a restroom.”

When designing inclusive, public commercial restrooms, the Seven Principles of Universal Design can be very helpful in ensuring the needs of all users are considered:

1. Equitable Use
2. Flexibility in Use
3. Simple & Intuitive Use
4. Perceptible Information
5. Tolerance for Error
6. Size & Space for Approach and Use
7. Low Physical Effort

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## Focus Group Findings: What Interior Designers Are Saying—7 Trends to Watch

As noted in earlier sections, the design of commercial restrooms and the importance of hand hygiene are seeing significant shifts. Interestingly, these changes are not necessarily the result of pandemic but are being underscored by it.

Societal shifts around gender identification are also shaping the way designers view and plan public restrooms today, but a number of questions remains as to the best path toward inclusivity in the physical environment.

In recent focus group discussion that *i+s* held with interior designers, seven key trends were identified:

- 1. Touchless/sensor-based products are becoming new normal**—but there are deterrents preventing more widespread adoption. These obstacles include performance, maintenance, costs, and design. Designers noted that they, along with facility staff, prefer hardwired over battery-operated fixtures due to the amount of maintenance required, especially in larger facilities with multiple restrooms and fixtures.
- 2. Unisex and all-gender restrooms are a growing trend.** Requests from clients are primarily for unisex restrooms, and space dictates if they can be accommodated. International building codes are making it easier to design for unisex restrooms. However, there was no consensus as to what an integrated and inclusive public restroom model that supports the needs of all persons regardless of gender identity might look like. Focus group participants were undecided as to whether urinals are needed in these spaces or not.
- 3. Partitions may expand to full height for increased privacy and to elevate the stall experience.** COVID has accentuated the need for greater privacy in the restroom, and floor-to-ceiling stalls help elevate the stall experience while providing all-gender options as well.
- 4. Where unisex is not possible or not specified, touchless or doorless entry/exit will be important,** as seen in the design of most commercial restrooms in airports.
- 5. Sustainability is important to designers but requests from clients to pursue LEED/WELL are not very significant.** Upfront and certification costs are the biggest deterrents to clients for pursuing these certifications. However, focus group participants noted that many clients will design toward LEED but not pay for

certification and that they will implement sustainable design strategies and products whenever possible. Environmental Product Declarations (EPDs) and Health Product Declarations (HPDs) are helpful for many designers but not necessarily a requirement for specification.

- 6. Due to greater awareness of the importance hand hygiene, handwashing outside the restroom will be more commonplace**—but design must improve. Mobile handwashing stations lack aesthetics to complement design schemes. Dining rooms and corporate cafeterias, break rooms and stadiums were identified as environments in which handwashing stations outside of the restroom are becoming more commonplace. Additionally, automatic hand-drying solutions are being supplemented with (or even replaced by) touchless paper dispensers due to hygiene concerns.
- 7. Desire for a well-designed suite of restroom fixtures is high.** This includes faucets, soap dispensers, hand dryers, and trash receptacles that match or complement each other. Designers are seeking products with a variety of finish selections so they can match, but which are often lacking.

## Quantitative Research: What the Data Is Saying

Stamats conducted an online survey using its *i+s* audience database in August 2021 to help Sloan develop a better understanding related to:

- What manufacturers can provide to make designers' jobs easier as well as how designers prefer to find product information
- Important attributes and forecast trends related to commercial restrooms and handwashing stations
- Perceived growth industries for sensor-based products
- The extent to which end clients pursue various types of certifications and prefer sustainable solutions

### Key Findings:

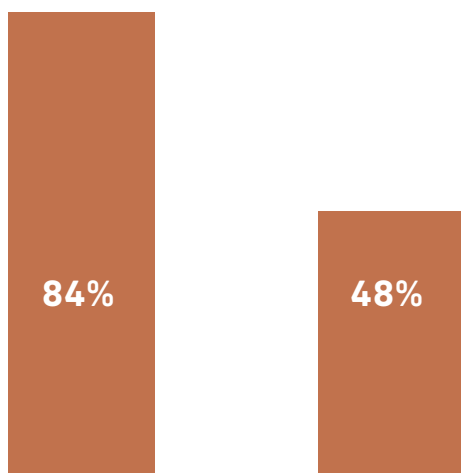
- Detailed technical specifications, local representatives with technical expertise, and reference images were the top three selections in terms of what can make designers' jobs easier. Websites were the most preferred means of finding product information.
- Performance and design options were the most important attributes in terms of touchless/sensor-based products



becoming more widely adopted in commercial restrooms.

- Healthcare was viewed as the industry with the highest growth potential for sensor products.
- Sustainability was somewhat important to end clients, while very few of them pursue LEED and/or WELL certifications.
- Sloan's highest rating pertained to its performance.

## Public Restroom Hygiene



**84% Extremely important to wash your hands after using a public restroom**

**48% Extremely important to dry your hands after using a public restroom**

## Trends in Touchless Technology for Commercial Restrooms

Stamats conducted an online survey (N = 890) using its *BUILDINGS* audience database from May-August 2021 to help develop a better understanding related to:

- The current and projected usage of touchless products in commercial restrooms
- The types of touchless products most appealing to facility professionals
- The biggest challenges to implementing touchless technologies in restrooms

### Key Findings:

- Most facilities professionals are not currently implementing new touchless technologies into their existing buildings because the majority of respondents indicate their current restrooms are already completely touchless; but there is clear interest in increasing touchless products into restrooms that currently don't feature them within the next 24 months.
- Faucets for hand washing and hand drying products are the most common touchless technologies in existing commercial restrooms.
- Cleanliness, a better user experience, and energy efficiencies are cited as the top three reasons for interest in touchless technologies.
- Cost is by far the biggest challenge to implementing a completely touchless restroom, followed by a lack of information on the correct solutions.

## Featured Products

Below is a sampling of two new touchless collections from Sloan that are available for commercial applications.



### [Rush Street Collection by Sloan](#)

Sloan's Rush Street Collection features smooth forms fused with sharp angles. Like Chicago's own Rush Street, this collection has something for everyone. Natural finishes. Smooth stonework. Understated luxury at the intersection of a gritty past and a glamorous present.

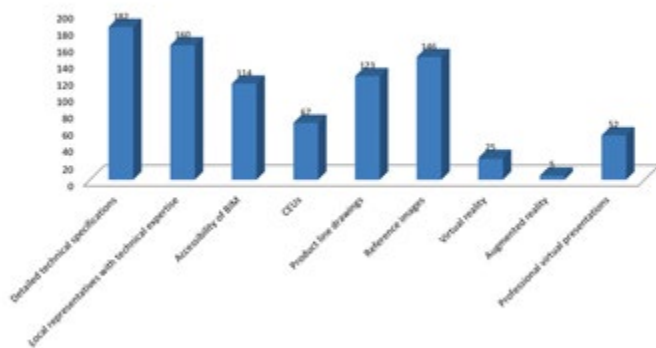


### [Clark Street Collection by Sloan](#)

Angular. Prominent. Elegantly positioned. Sloan's Clark Street Collection mirrors the commanding lines of one of Chicago's signature thoroughfares. Drawing from a wide range of architectural influences, this collection brings precise angles into harmony with subtle curves that capture light and attention.

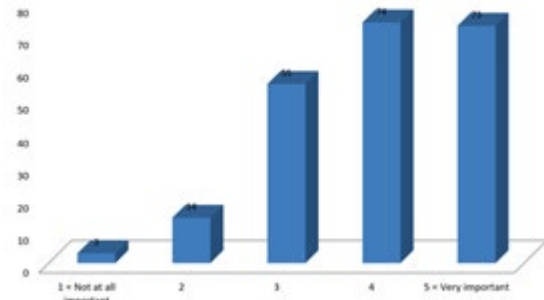
## Survey Results

Q1. Which of the following can a manufacturer provide to make your job easier?



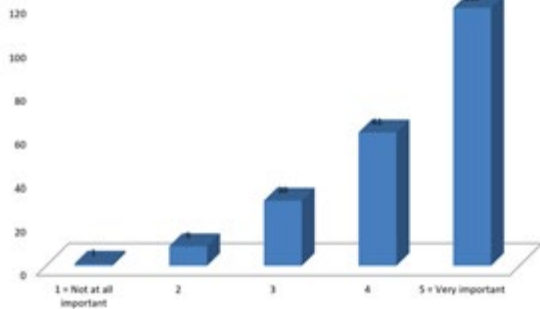
Detailed technical specifications, local representatives with technical expertise, and reference images were the top three selections.

Q2. To what extent do you believe that cost is an important factor in terms of touchless/sensor-based products becoming more widely adopted in commercial restrooms?



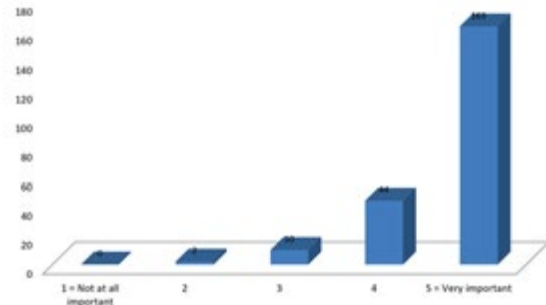
The average rating was 3.9 on the 5-point scale.

Q3. To what extent do you believe that having various design options is an important factor in terms of touchless/sensor-based products becoming more widely adopted in commercial restrooms?



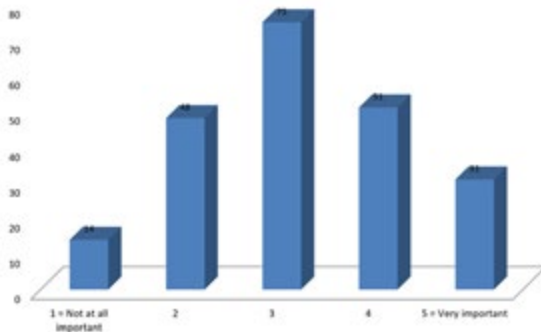
The average rating was 4.3 on the 5-point scale.

Q4. To what extent do you believe that performance is an important factor in terms of touchless/sensor-based products becoming more widely adopted in commercial restrooms?



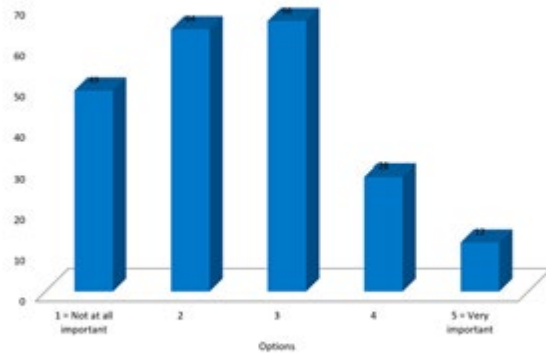
The average rating was 4.7 on the 5-point scale.

Q5. To what extent is the touchless/sensor-based product's ability to connect with other building management systems important?



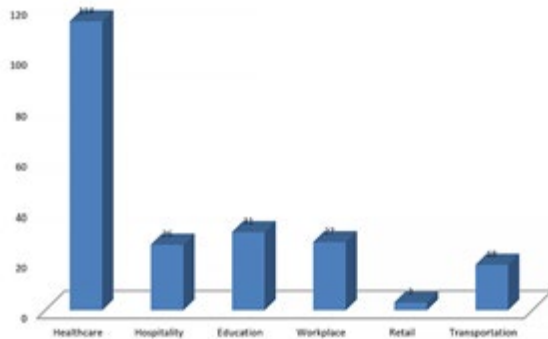
The average rating was 3.2 on the 5-point scale.

Q6. To what extent is it important to be able to control the touchless/sensor-based product via a mobile app?



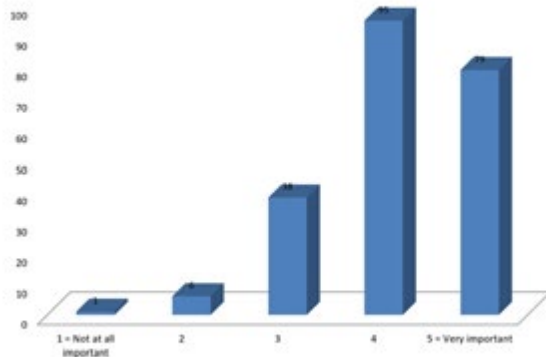
The average rating was 2.5 on the 5-point scale.

Q7. Please rank the following markets in terms of highest growth opportunity for sensor products. (1st Choice)



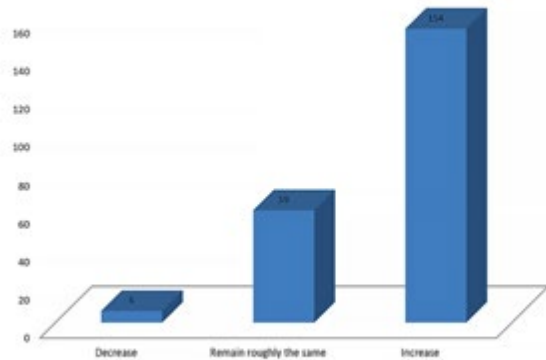
Healthcare was far-and-away the most frequently selected industry.

Q8. Please rate the level of importance of touchless or doorless entry and exit capabilities.



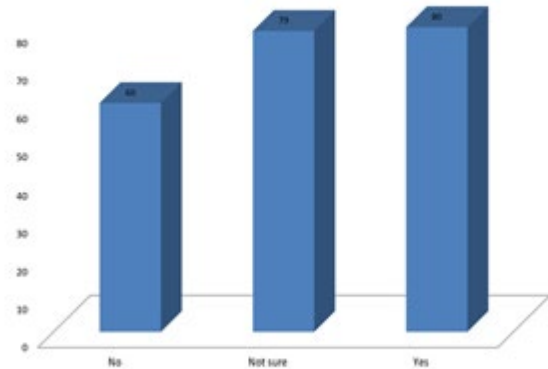
The average rating was 4.1 on the 5-point scale.

Q9. Over the next 3 years, do you expect the number of requests for all-gender restrooms to...



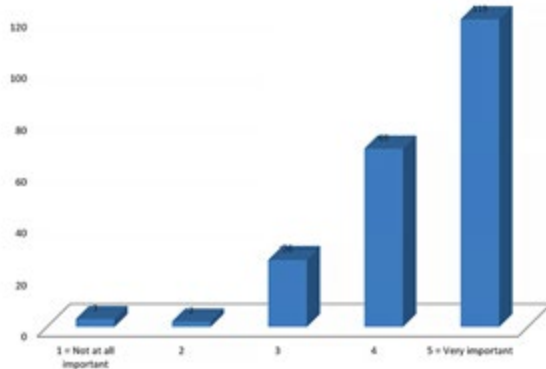
70% of respondents expected the number of requests to increase.

Q10. Related to all-gender restrooms, do you believe that urinals should be required?



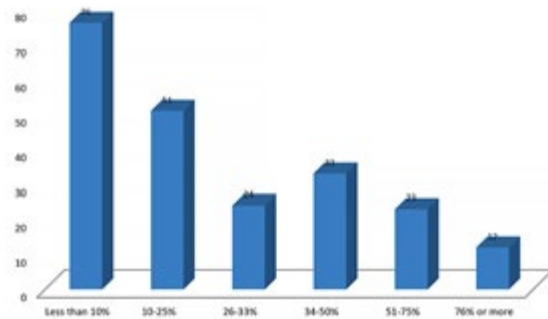
Nearly 1/3 of respondents were evenly split between believing that urinals should be required or being unsure.

Q11. Please rate the level of importance of full-height stall partitions.



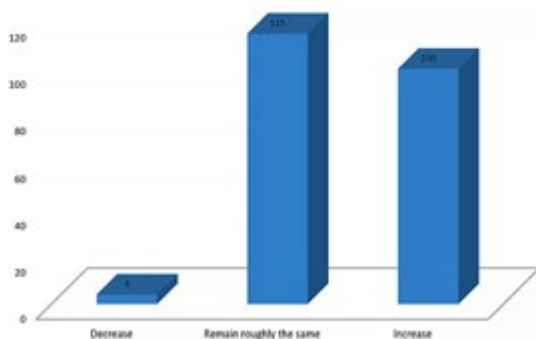
The average rating was 4.4 on the 5-point scale.

Q12. In terms of the total number of project requests related to sinks/handwashing solutions, what percentage calls for handwashing stations outside of the restroom?



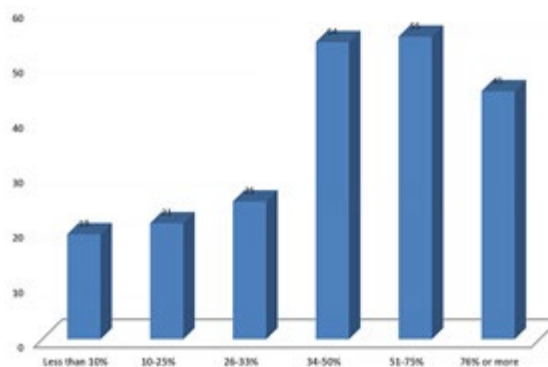
3/5 of respondents indicated 25% or fewer requests calling for handwashing stations outside of the restroom.

Q13. Over the next 3 years, do you expect the number of requests for handwashing stations outside of the restroom to...



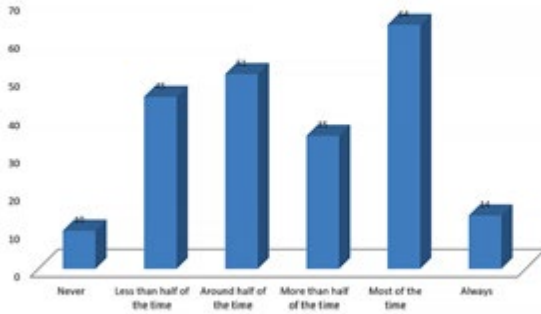
Just over half of respondents expect the number of requests to remain roughly the same.

Q14. In what percentage of your projects are paper-based hand drying solutions being specified?



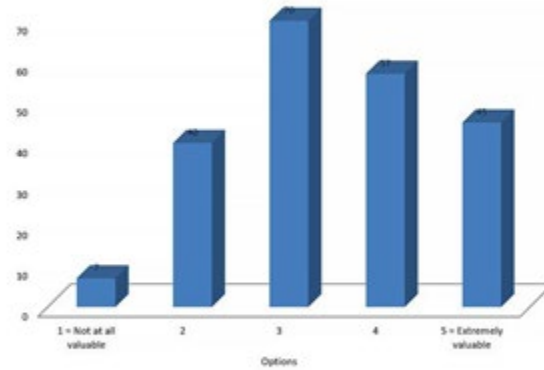
Half of respondents were in the 34-75% range.

Q15. To what extent are you able to specify well-designed, complementary suites of restroom products (complementary or matching faucets, soap dispenser, hand drying solutions, trash cans, etc.) for your projects?



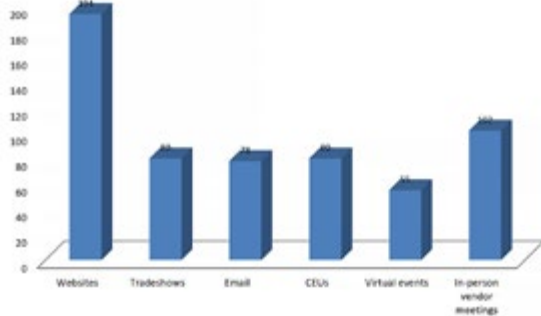
Half of respondents were in the 34-75% range.

Q16. How valuable is a virtual sink design tool when visiting a manufacturer's website?



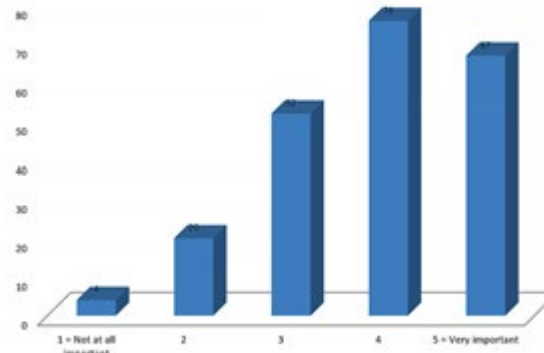
Half of respondents were in the 34-75% range.

Q17. How do you prefer to find information about new faucet, soap dispenser, sink, hand dryer, and flushometer products? Please select all that apply and then click Enter or the blue arrow to proceed.



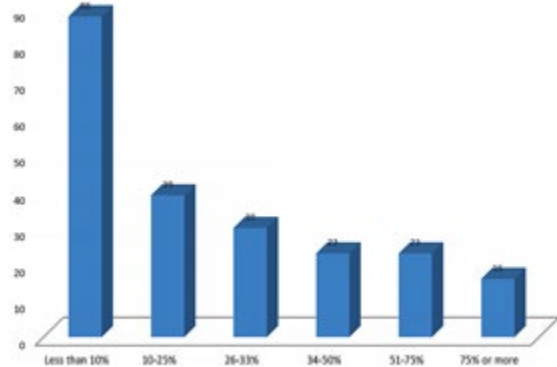
Websites were the most preferred means of finding information.

Q18. How important is it to your clients to design sustainable solutions?



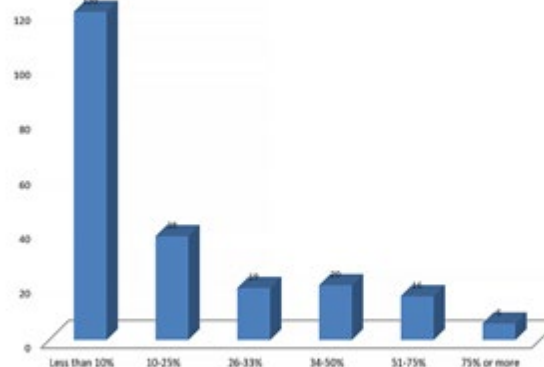
The average rating was 3.8 on the 5-point scale.

Q19. What percentage of your clients pursue LEED certification?



2/5 of the respondents indicated that less than 10% of their clients pursue LEED certification.

Q20. What percentage of your clients pursue WELL certification?



5 in 9 respondents indicated that less than 10% of their clients pursue WELL certification.

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