

The Custodial/Janitorial Closet

Evolution of Cleaning Provision Areas

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The Custodial/Janitorial Closet Overview

All buildings require cleaning; it is integral for protection and cleanliness of the structure, and the health, and safety of the occupants and visitors within them. Building cleanliness is based on the cleaning program for the building, including all provisions¹ required to perform the cleaning procedures outlined in it, which include cleaning supplies, chemicals, materials, tools, and equipment.

- **Supplies:** items that have a onetime use and then discarded, including paper products, liners, soap, etc.
- **Chemicals:** formulations used to enhance cleaning, sanitizing, disinfecting, and maintenance.
- **Materials:** items that may be cleaned and reused multiple times then discarded.
- **Tools:** hand-held implements, or devices that last a long time.
- **Equipment:** powered machinery.

Traditionally the custodial/janitorial closet is the area where these provisions are stored. The storage areas are generally small (hence the name “closet”), essentially enough room for a deep sink or floor sink, a few shelves for supplies and materials, and enough room for minimal tools and equipment storage. In many smaller buildings, the custodial/janitorial closet may really be converted clothes closets and, in severe cases, an area under a kitchen sink in a break room. In larger buildings with multiple floors, there may be a small custodian/janitorial closet on each floor between the primary restrooms. There may also be an actual custodial/janitorial closet located on one floor for the entire building. The challenge of the cleaning service providers is that custodial/janitorial closets are often insufficient in quantity or inadequate in space. There is an apparent need for more knowledge and better planning, as well as thoughtful design and industry standards for custodial/janitorial closets (cleaning provision areas).

Although there are many buildings that are equipped with adequate cleaning provision areas, either by design or modification, there are many more that are not. The purpose of this paper is to identify some key factors to consider for cleaning provision areas when planning, designing, building, or remodeling.

Cleaning Provision Areas

Cleaning provision areas are often architecturally established based on the size and occupancy of the building. Square footage and tenancy only produce bulk numbers that may be misleading. For instance, open space is much different than compartmentalized space. Private commercial office space is entirely different than public education or healthcare space. Each environment generates different types of soil and dirt: both externally and internally. All these variables influence the supplies, chemicals, materials, tools, and equipment, needed to support the cleaning program, and by extension the requirements for the cleaning provision area.²

In all buildings, cleaning personnel perform a variety of tasks, which may require a wide assortment of provisions. To perform their jobs effectively and efficiently, they must have all the items required to

¹ Provision; 1: 1a: the act or process of providing. b: the fact or state of being prepared beforehand. c: a measure taken beforehand to deal with a need or contingency: preparation made provision for replacements. 2: a stock of needed materials or supplies especially: a stock of food — usually used in plural.

² Janitorial Design Narrative – Alameda County GSA | May 2021

perform the individual tasks in the cleaning program readily available, and when possible, conveniently located in the building. These provisions should be in areas that best suit the operational needs as well as the storage needs of the cleaning person(s).³

Traditional custodial/janitorial closets in existing buildings may not have been designed to handle the contemporary equipment and products used in the cleaning industry today. Manufacturers are continually developing new products that improve performance (effectiveness and efficiency), that are environmentally friendly, while reducing employee fatigue and improving safety. A variety of sizes of automatic scrubbing machines, portable extraction equipment, cylindrical brush machines, and vacuum cleaners have been redesigned to meet the cleanliness levels required in the interior environment. Microfiber mopping systems, pressurized surface cleaning systems, and robotics, unheard of just a few years ago, are now baseline components in building cleaning programs. As these new innovations are adapted and integrated into the cleaning program, consideration must focus on how and where to monitor, manage, and store them.

Buildings may have one or more custodial/janitorial closets containing cleaning provisions however, there are essentially three types to be considered, dry, wet, and office areas.

- **Dry Cleaning Provision Areas:** are static areas with minimal activity and are more representative of true storage areas. These areas are usually used for stockpiling supply products such as paper towels, toilet paper, liners, and additional products that may be resupplied in smaller storage areas. They can also be dynamic areas when used for recharging areas for large equipment.
- **Wet Cleaning Provision Areas:** are dynamic areas that are used for more than just storage of cleaning provisions. These areas may contain a deep sink or a floor sink with spigots and/or proportioning systems for drawing water and mixing solutions. They may also be used for storage of janitorial carts/buckets, mop buckets and presses/wringers, microfiber systems and additional tools that are used routinely to perform cleaning tasks. Additionally, these areas may be used for monitoring, management, and storage of cleaning equipment.
- **Office Cleaning Provision Areas:** an office area may be required to monitor and maintain the cleaning program and schedule, as well as manage administration duties for the cleaning staff. Large buildings, complexes and campuses generally have sizable cleaning staffs to clean and maintain them.

General Requirements

Individual cleaning provision areas should be centrally located and easily accessed from a primary hallway. Regardless of the size of the building, all cleaning provision areas should be square or rectangular in shape to ensure equipment can be turned, prepared for service, cleaned, or stored easily within it. Cleaning provision areas must provide for wet activity, dry activity, or administrative activity (when applicable). In large buildings, complexes or campuses, wet and dry activity areas may be required independently or a combination of both. Additionally, an administrative activity area may be required for managing the cleaning program. When planning cleaning provision areas for new buildings, additions, or

³ University of Utah Architectural Design Manual, June 2012

renovations, all cleaning program considerations should be entered into the analysis to determine the actual requirements.⁴

Preferred Location and Area Requirements

All cleaning provision areas should be centrally located to the vicinity in which the cleaning tasks will be performed. In smaller buildings with multi-purpose (wet and/or dry) activity areas or larger buildings, complexes or campuses, the area should be sufficient for the current provisions that each is intended to support. Consideration should be given for additional capacity created for the potential expansion of the building or cleanable area. Cleaning provision areas should have a ventilation system to evacuate moisture or odors associated with cleaning equipment and chemicals.⁵

Size Requirements

Contemporary cleaning technologies (riding equipment, robotics, automatic scrubbing machines, etc.) should be considered in buildings to avoid being confronted with an inadequate cleaning provision area when such equipment is purchased. All equipment will require cleaning, recharging, maintenance, and storage, therefore considerable thought should be put into the current equipment being used and future equipment and technology that may be acquired. In addition to the size of the equipment, one must consider the quantity of equipment that may be required. A common size cleaning provision area is approximately 15 feet wide by 20 feet in length, which may or may not be adequate.⁶

Doorway and Doors

The doorway into the cleaning provision areas should be wide enough as to allow sufficient access for equipment and the cleaning provisions. Although commercial building codes dictate that door sizes range from 34 to 48 inches in width, standard commercial doors for cleaning provision areas should be a minimum width of 36 inches.⁷ Other environments such as transportation, education, and healthcare that use sizeable equipment for cleaning and maintenance may require wider doorways. All doors should open outwards and be equipped with built-in doorstops or devices for holding the door open. Cleaning provision area doors should have screens, slats, or louvres in them to help vent the area. The purpose is to allow air flow for ventilation systems or to facilitate the drying of tools and equipment to dry, which prevents odors and mildew. Serious consideration should be given to doorway thresholds. It needs to contain liquid spills in the cleaning provision area and prevent it from entering the hallway, while not interfering with the movement of equipment.

Walls and Ceilings

Walls and ceilings should be of appropriate height that a person could stand and freely use tools and equipment and not hit the ceiling. There should be wall space for hangers and storage (brooms and ladders, etc.). In addition, safety posters or regulations may require posting in the work area. These and other materials should be posted in unobstructed spaces. The walls also should be a surface that may be easily cleaned and disinfected.⁸

⁴ Janitorial Design Narrative – Alameda County GSA | May 2021

⁵ ISSA CMI Basic Custodial Technician Manual v7,

⁶ Janitorial Design Narrative – Alameda County GSA | May 2021

⁷ International Building Code (IBC) 2021.

⁸ Oregon State University – Design &Construction Standards – Custodial Closets 2022

Lighting

Lighting should be bright enough to clearly see everything in the cleaning provision area⁹. When possible, an automatic light or motion detector light switch should be installed. Overhead light fixtures should be high enough to avoid being struck by objects such as mop handles. When light fixtures are low with exposed bulbs, a cage or light protector should be installed for safety.¹⁰

Electrical

Each cleaning provision area should have a minimum of one standard electrical outlet box containing two or four female outlet connectors. Wet provision areas should be equipped with ground fault circuit interrupters (GFCI) regulating every outlet.¹¹The electrical outlets are commonly used for recharging battery powered tools and equipment or cleaning the equipment and the room. Additional outlets may be required in larger cleaning provision areas. Ensure outlets are placed in accordance with all local, state, and federal electrical codes.

Shelving Requirements

Each cleaning provision area will have various needs for shelf space. The shelving system used should have the flexibility to adjust the height of each shelf independently. In some situations, it may be desirable to have a movable shelving system that can be shifted and modified to meet the needs of the cleaning of the building.

Floor Surface

The floor selection is contingent on the use of the cleaning provision area. The floor surface for the cleaning provision areas (wet or dry) should be sealed concrete, ceramic tile, quarry tile, or resilient flooring.¹²If the cleaning provision area is a cleaning administrative office or a dry activity or storage room, then it may contain carpet as the flooring material, particularly if it is a temporary use area.

Specific Requirements

These general requirements describe some basic standards that are applicable to all cleaning provision areas, however, there are specific necessities for each type of area. These prerequisites will be contingent on the activity that takes place in the cleaning provision area. In addition to these common essentials, there may be more specific requirements that are related to the unique environment of the building. The following are the specific requirements recommended for each type of cleaning provision area.

Wet Provision Areas

Wet provision areas are dynamic areas in which cleaning chemicals can be stored. Activities in these areas include preparation for cleaning services, as well as cleaning the tools and equipment after services take place. To perform these activities, wet provision areas should have hot and cold running water (with adequate water pressure) and a free-flowing drain. These cleaning provision areas should be centrally

⁹ ISSA CMI Basic Custodial Technician Manual v7,

¹⁰ University of Utah Architectural Design Manual, June 2012

¹¹ Oregon State University – Design &Construction Standards – Custodial Closets 2022

¹² Oregon State University – Design &Construction Standards – Custodial Closets 2022

located in its service area to reduce the need for transporting equipment, tools, or solutions long distances. This will reduce transit time and the potential for possible spills or accidents.

The number of wet provision areas per floor may vary. There should be a minimum of one wet provision area per floor. Building floor areas that are greater than 20,000 gross square feet should have multiple wet provision areas. When multiple wet provision areas are located on the same floor, the floor area should be divided into equal segments and each closet should be centrally located in its service area.

Each wet provision area should have a service sink. The size and location of the sink should support the cleaning of tools, including the mop buckets, and draining equipment tanks. The edge of the sink is recommended to be approximately 6 inches above the finished floor. The walls near the sink area should be protected from splashes. This can be accomplished with ceramic tile, paint, a protective coating, or laminated composite material to act as a splash guard.¹³

The sink area should have sufficient space to include a wall mounted hanger rack over the service sink, with minimum of four hangers to accommodate wet mops and tools. Additionally, adequate wall space for a chemical dispensing system should be over or near the service sink or water source.

It is recommended that one wall of the wet service area will be equipped with a shelving structure from floor to ceiling. Shelves should have a minimum depth to accommodate the common size of a 12 x 1 quart case, which is 14.5 inches by 11 inches (11 inches high). It should also have a maximum width that does not interfere with the movement of equipment in the room. The shelving system should not be located behind the door.

Access doorways to the wet provision areas should be wide enough for all tools and equipment to fit through. The minimum door width for each wet provision area should be 36 inches wide, or wider if a more width is required. All wet provision area doors should swing outward and be equipped with built-in doorstops or devices for holding the door open. Doorway thresholds should be made of water-resistant material and be of sufficient height to protect against water or solutions from seeping into the hallway.

Dry Provision Areas

Dry provision areas may be static areas (used for storage only) or dynamic areas (used for storage and other activities) and each plays an important role. Although single level buildings may only have a single wet/dry provision area, multi-level buildings and campuses should have multiple wet and dry areas. In larger buildings, there may be a need to store additional supplies (e.g., paper towels, toilet paper, hand soap, etc.), which may require more storage space beyond the capacity of a typical wet or dry provision area.

Custodial Office

Each building may need to have a custodial office. The custodial office should be located adjacent to a wet or dry provision area. This may need separation by a wall and a door. This would allow each space to serve independent purposes, as a separate provision area and an independent custodial office.

¹³ Oregon State University – Design & Construction Standards – Custodial Closets 2022: University of Utah Architectural Design Manual, June 2012.

The custodial office should include either a built-in desk or sufficient room for a standard desk and a filing cabinet. It should include sturdy shelving and room for staff lockers. Do not locate the shelf or the locker where they will conflict with the door(s).

The custodial office should include electrical outlets, which are in approved locations for computers and electronic equipment. The design should include wall connections for computers, internet access, and phone service.

Cleaning Provision Areas Summary

The intent of this document is to further define custodial closets as cleaning provision areas because it more closely describes their functions. This document identifies three primary areas (i.e., dry provision areas, wet provision areas, and custodial office areas). It also prescribes the preferred location and area requirements for each. This includes the recommended sizes, doorways, walls, ceilings, shelving, lighting, electrical, and flooring material requirements. The intent is to bring awareness to building design as it relates to new buildings under construction or buildings being remodeled. In some cases, it all starts with the architectural drawings. The goal is to impact new building design which affects the entire cleaning industry by highlighting the need for more effective and efficient areas for cleaning provision areas and the activities that they support.

References

International Building Code (IBC) (2021)

The International Building Code (IBC) is the foundation of the complete Family of International Codes®. It is an essential tool to preserve public health and safety that provides safeguards from hazards associated with the built environment. It addresses design and installation of innovative materials that meet or exceed public health and safety goals.

ISSA CMI Basic Custodial Technician Manual v7 (2021)

Cleaning Management Institute® or CMI® was established in 1964 as an educational organization dedicated to the professional development of industry professionals within the building maintenance field. CMI certified professionals and members can be found throughout the world with the heaviest concentration in the United States.

Janitorial Design Narrative – Alameda County GSA (May 2021)

This document specifies the design requirements for janitorial and restroom systems for facilities built for use by Alameda County, including build-to-suit. It includes information on janitorial supply room space and equipment needs, accessibility and equipment need for janitorial services in various areas of the building, and product specifications for restroom and janitorial closet accessories.

Miriam-Webster (2022)

Merriam-Webster, Inc. is an American company that publishes reference books and is especially known for its dictionaries.

Oregon State University – Design & Construction Standards – Custodial Closets (2022)

The OSU Design & Construction Standards (Standards) support OSU's policies related to the design and maintenance of facilities on campus and to the OSU Campus Master Plan.

University of Utah Architectural Design Manual (June 2012)

Architectural design standard produced to provide A/Es with specific requirements and minimum standards acceptable to the University for use in the construction or remodeling of buildings or facilities on campus.

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