



Better worksites. Better weekends. Better world.

GUIDE TO PORTABLE RESTROOM EXCELLENCE



The Portable Sanitation Industry

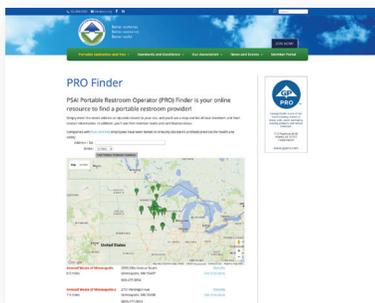
Choosing the right portable restroom provider and deciding what equipment you need can be challenging. We are here to help. The PSAI has designed this publication with event planners, contractors, and users in mind. In these pages you'll learn more about portable sanitation, and the steps you can take to make sure the experience is positive for everyone.

Portable Restroom Operators (PROs) are companies hired by the general public, businesses, and government agencies to serve all types of portable sanitation needs. Just like indoor restrooms, portable restroom units and hand wash stations placed outdoors need to be sanitized and cleaned at a pace that stays one step ahead of the "ick factor" that can accompany using any restroom that has not been properly serviced.

Seasoned PROs take into account the health and safety of the users—and will do what it takes to provide a clean environment and a positive experience. They want to help you take the steps that are necessary to avoid negative outcomes for your employees or guests.

Reputable companies discuss your anticipated needs and schedule. Then, based on their experience and the various standards that apply to your situation, they will recommend equipment and a servicing schedule that seems right for you. Don't be surprised if they are reluctant to reduce or cut back from their recommendations—even if you want to cut costs. Why? They know a positive restroom experience is a "must" for the public. Your reputation and theirs depends on it!

www.psaio.org/pro-finder



The PSAI Portable Restroom Operator (PRO) Finder is your online resource to find a portable restroom provider.

Simply enter the street address or zip code for your location. Click and you'll see a map and list of local PSAI Members and their contact information.



Code of Excellence

One of the things that trade associations like the PSAI do is define what is best about their industries. So it was natural, then, for the PSAI—as the largest trade association in the world serving the portable sanitation industry—to develop a Code of Excellence. The Code was designed to be both aspirational and practical. It paints a picture of what the best companies already do, what good companies are working toward, and stands them in stark contrast to the “bad actors” that can cause harm by not following these guidelines. Here is a summary of our industry’s code.

Part I: Excellence in Our Actions

- We take seriously our responsibilities to customers, employees, and the world at large.
- We conduct our businesses and ourselves in a legal and ethical manner; we do the right thing.



Part II: Excellence in Our Reputation

- We maintain certified and qualified personnel, all of whom adhere to professional standards for technical operations and personal conduct.
- We provide clean portable sanitation units and equipment, and we maintain our equipment to the highest standard.
- We listen to our customers, taking the time to understand their expectations, wants, and needs. Then, we identify effective means of addressing them.

Part III: Excellence in Our Relationships

- We serve others with dignity and treat everyone with respect.
- We promote equal opportunity and diversity in the workplace, as well as an environment free of harassment.
- We follow good business practices with customers and suppliers.
- We engage only in fair business practices with respect to our competitors.

Part IV: Excellence in Our Operations

- We professionally and courteously transport our equipment.
- We keep accurate records.
- We monitor and audit activities as requested.
- We continuously train and improve our personnel to perform at the highest standard with consistency throughout the organization.

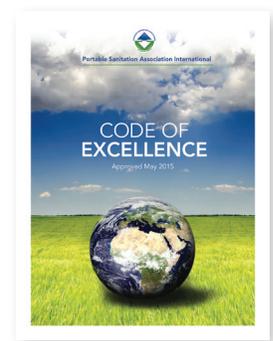


Part V: Excellence in Our Environment

- We protect the health and safety of others.
- We handle spills with the utmost care and urgency.
- We properly handle and legally dispose of waste.
- We protect the environment.

Part VI: Excellence Acknowledgement

- We sign an acknowledgement that demonstrates our commitment to the PSAI Code of Excellence for the Portable Sanitation Industry.
- We hold ourselves accountable for failures that cause harm to the public or the image of the industry.



To download the full Code of Excellence, visit www.pesai.org/read-the-code

How Portable Sanitation Works

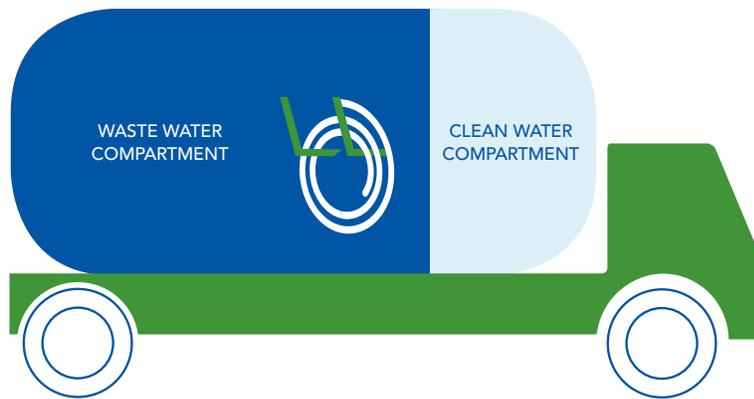


PLANNER reaches out to **PORTABLE RESTROOM OPERATORS (PROs)** who can **provide units and service** (The PSAI and its search engine at www.psaio.org can help!)



PLANNING CHECKLIST

- ✓ **EVENT LENGTH**
Events at which people stay longer require more units.
- ✓ **TRAFFIC FLOW**
Will use be dispersed (as at a construction site), or will everyone want to use the units at the same time (as at a concert or marathon)?
- ✓ **OUTSIDE TEMPERATURE**
When it's warmer, you'll need more units.
- ✓ **FOOD AND BEVERAGE CONSUMPTION**
As consumption goes up, the need for toilets goes up. This is especially true when alcohol is available.
- ✓ **SPECIAL NEEDS**
Will families with children be present? Are you planning a public event covered by the Americans with Disabilities Act (ADA)?
- ✓ **TERRAIN AND CURBING**
Can a truck reach the units to provide service? Will the units be stable? If necessary, can a wheelchair access the units?



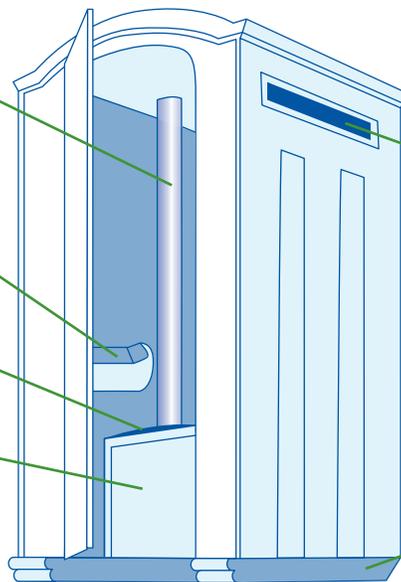
UNITS ARE SERVICED using a **SPECIAL VACUUM TRUCK** with **two or more compartments**—one for **waste** and one with **clean water** for recharging

VENT PIPE for **AIR EXCHANGE** and **ODOR RELEASE**

URINAL

TOILET BENCH with **COMMUNE SEAT**

HOLDING TANK
(Commonly around 60–70 gallon of capacity.) A clean unit contains 5–10 gallons of prefill called a **CHARGE**



VENTILATION

SKIDS

Most basic portable restrooms are constructed of lightweight plastic, such as polyethylene, which forms the toilet bench itself, as well as the cabin in which it is contained. A waste holding tank is built into the unit. This tank contains a few gallons of pre-filled liquid known as the “charge.” The charge typically includes water, biocides, and fragrances to ensure the user’s experience remains pleasant as the tank fills. Some basic portable restroom units include a sink inside. Units that flush are also available from some PROs, as are handicap-accessible units, external hand wash stations, family-friendly units, and luxury restroom trailers. Be sure to ask your PRO about these options.

ESTIMATED USES:

A 60-gallon tank **SHOULD BE SERVICED** when 20–30 gallons of material is present in the tank (including the “charge”)

AVERAGE USER:

1 USE **PER 4 HOURS**

8–12 oz. **WASTE PER USE**

Approximately 200–250 uses per unit



Portable Sanitation and Special Events



See the info graphic on page 4 for a handy **Sanitation Planning Checklist**

PLANNING FOR YOUR EVENT'S PORTABLE RESTROOM NEEDS

Whether you are organizing a large community event, a wedding, a company picnic, or a family reunion (to name only a few uses), proper planning is key to a successful event. Under normal conditions, most people will use sanitation facilities every four hours. Weather conditions and the consumption of food and beverages could increase their visits to the restroom by 30 to 40 percent.

Good planners ensure their guests are comfortable so they can focus fully on the event. A bad experience with a portable restroom can affect how long your guests stay, how much money they spend, and their attitudes toward the event itself. Ask your PRO for guidance and expertise to ensure the best possible experience for everyone. When planning a multiple-day, -week or -month event, your PRO will advise you regarding optimal service schedules so that everything is clean and well stocked.

LUXURY OPTIONS

In addition to traditional portable restroom cabins, today there are a variety of additional equipment options and services from which event organizers can choose. There are portable units that flush, and trailer options with toilet rooms so well appointed they have marble and porcelain fixtures, built-in fragrance units, and other fancy additions. Typically these cost more, but the experience of using a luxury portable facility is no different than using the restroom at a fancy hotel. These units are very popular for events like weddings and outdoor gatherings where VIPs are present. Be sure to ask your PRO about availability in your area.



For a more information:
www.psal.org/renting-portable-units

NUMBER OF UNITS REQUIRED

	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
1-50	1	1	1	1	2	2	2	2	2	2
100	2	2	2	2	2	3	3	3	3	3
250	2	2	2	2	3	3	3	3	3	3
500	2	4	4	5	6	7	9	9	10	12
1000	4	6	8	8	9	9	11	12	13	13
2000	5	6	9	12	14	16	18	20	23	25
3000	6	9	12	16	20	24	26	30	34	38
4000	8	13	16	22	25	30	35	40	45	50
5000	12	15	20	25	31	38	44	50	56	63
6000	12	15	23	30	38	45	53	60	68	75
7000	12	18	26	35	44	53	61	70	79	88
8000	12	20	30	40	50	60	70	80	90	100
10,000	15	25	38	50	63	75	88	100	113	125

MINIMUM NUMBER OF
HAND WASH STATIONS

Number of toilet facilities	Hand wash stations required*
1–10	1
11–20	2
21–30	3
31–40	4
Over 40	1 add'l for each 10

*For the purpose of this standard, the required number of hand wash stations are equipped with a minimum of one faucet.

There are many factors to consider when planning the number of portable restroom units needed for your special event. Here is a guide to the **minimum number of units required** when no pumping service is provided, based on a 50/50 mix of men and women. If you are serving alcohol at your event, add 10 to 20 percent more units. Also add more units if your event will tend to have a lot of people needing to use the facilities at approximately the same time rather than spaced evenly throughout the day. Don't forget to include the number of volunteers, security people and vendors that will use the facilities along with your guests. Your PRO will help you determine what you need, set an optimal cleaning schedule, and if it is a public event—discuss how many ADA-compliant restrooms are required.



For a more information and an extended chart: www.pesai.org/renting-portable-units

Portable Sanitation and Worksites



According to the US Bureau of Labor Statistics there are approximately **2.035 MILLION CONSTRUCTION WORKERS** in the United States

Portable restrooms are the primary sanitation facilities for the construction industry and other work sites where toilets connected to a sewer or septic system are not available. Most PROs can provide a number of options and services including portable restroom units, hand wash stations, portable showers, potable water, and changing rooms. Usually, the Occupational Safety and Health Administration (OSHA) requires portable toilets for workers permanent toilet facility is not immediately available (see page 10 for more information). Many cities, towns, and counties also require portable toilets on job sites. Call the authorities in your local jurisdiction if you are unsure about the laws and requirements in your area.

Placing portable toilets on construction sites and other worksites is intended to ensure that conditions are clean and safe for workers, clients, and others who are visiting the area. Portable units that are properly set up and maintained can protect people from microorganisms, bacteria, and diseases. They also provide a dignified place for workers to answer nature's call, and they save money for employers.

IMPACT ON PRODUCTIVITY AT CONSTRUCTION SITES

According to the US Bureau of Labor Statistics there are approximately 2.035 million construction workers in the United States, each making an average hourly wage of \$25.40. Imagine what the economic impact would be if we didn't have portable restrooms on construction sites. Each construction worker would either have to leave the site at least once a day or relieve themselves on site with no toilet. If they were to leave the site, use a restroom, and return just once a day, the cost to productivity would be enormous.

PRODUCTIVITY ON CONSTRUCTION SITES

2.035 **MILLION** construction workers

X

\$25.40 **HOURLY WAGE**

\$51.7 **MILLION** productivity lost per hour

X

33% **20 MINUTES** or **1/3 OF AN HOUR** for round trip to off-site toilet

\$17.06 **MILLION** lost productivity per day by not having a portable toilet on a job site

X

240 **WORKING DAYS PER YEAR**

\$4.1 **BILLION** estimated yearly cost of lost productivity due to lack of portable restrooms on job sites

FUEL USE ON CONSTRUCTION SITES

Now suppose these same construction workers jump in their pick up trucks and take two other crew members to the local fast food restaurant or convenience store to relieve themselves once a day. The pick up averages 14 miles per gallon, diesel fuel costs approximately \$2.75 a gallon, and the average round trip is three miles. The cost for fuel that can be attributed to lack of portable restrooms on construction sites would be:

2.035 **MILLION** construction workers

÷

3

WORKERS leaving sites in each vehicle

678,333 **DAILY TRIPS** round trip to a restroom facility

X

3

MILES round trip to a restroom facility

2.035 **MILLION MILES** traveled daily to access off-site sanitation

÷

14

AVERAGE MPG

X

\$2.75 **AVERAGE COST** per gallon of diesel fuel

\$400,000 **DAILY COST** of diesel fuel

X

240

WORKING DAYS PER YEAR

\$96

MILLION yearly cost of diesel fuel, plus adding to greenhouse gas emissions, and wear and tear on vehicles and highways

MINIMUM NUMBER OF RESTROOM FACILITIES



TOILET FACILITIES

Toilet facilities (in toilet rooms separate for each gender) shall be provided according to the following criteria (ANSI/PSAI Z4.3)

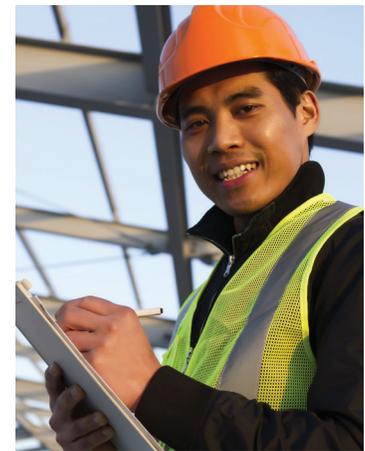
 NUMBER OF WORKERS	 NUMBER OF 8-HOUR SHIFTS		
	1	2	3
	 MINIMUM NUMBER OF TOILETS		
1-10	1	2	3
11-20	2	4	6
21-30	3	6	9
31-40	4	8	12
41-50	5	19	15
51-60	6	12	18
60+	1 additional per 10 employees		



One unit is designed for use by **NO MORE THAN 10 WORKERS** in a 40-hour work week.



It isn't necessary to provide separate facilities for each gender **when toilet rooms will be occupied by no more than one person at a time, can be locked from the inside, and contain at least one water closet.** When facilities will not be used by women, urinals may be provided instead of toilets.



The **Occupational Safety and Health Administration (OSHA)** requires portable toilets for workers when access to a toilet facility is not immediately available. See page 10 for more information.

Standards and Regulations



Visit www.pesai.org/ansi-standards for more information

ANSI STANDARDS

As the voice of the US standards and conformity assessment system, the nonprofit American National Standards Institute (ANSI) oversees the creation, promulgation, and use of thousands of norms and guidelines that directly impact businesses in nearly every sector of commerce. Standards for the portable sanitation industry are found in ANSI/PSAI Z4.1, ANSI/PSAI Z4.3, and ANSI/PSAI Z4.4, as well as ANSI/ASSE A10.25.



Visit www.pesai.org/osha-standards for more information

OSHA STANDARDS

The US government agency known as OSHA sets and enforces standards, and provides training, outreach, education, and assistance. Several OSHA standards apply to general environmental controls and to sanitation in construction, fields, and labor camps. With rare exceptions, OSHA standards have the force of the law. Those who fail to adhere to the standards can be fined or otherwise held culpable. The OSHA standards that are relevant to portable sanitation are mostly found in the Code of Federal Regulations, Title 29, Part 1910 (29CFR1910).



Visit www.pesai.org/ada-and-portable-sanitation for more information

ADA AND PORTABLE SANITATION

The Americans with Disabilities Act (ADA) guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, state and local government services, and telecommunications. For all events requiring public accommodation, at least five percent of portable toilet units must be ADA compliant. The path of travel to and from the ADA compliant units must also meet the accessibility requirements specified by the ADA.



Visit www.pesai.org/epa-regulations for more information

EPA REGULATIONS

The EPA is the US government agency charged with implementing environmental laws. The EPA does not have federal standards specifically for portable restrooms, but the Agency requires states and municipalities to meet its standards. Accordingly, many of these governmental entities impose rules regarding the placement and servicing of units, as well as the disposal of waste.



Visit www.pesai.org/dot-regulations for more information

DOT REGULATIONS

The US Department of Transportation (DOT) is located in Washington D.C. and serves the public by ensuring a fast, safe, efficient, accessible, and convenient transportation system. The US DOT requires that all commercial motor vehicles with a gross vehicle weight rating of 10,001 pounds or more undergo an inspection every year. This is conducted in order to make sure all parts and accessories of the vehicle are in good working order. Some states also require that many other registered vehicles used in the portable sanitation industry be inspected through mandatory programs.

More Benefits of Portable Sanitation

Portable sanitation provided by knowledgeable operators has been a proven means of safely handling and treating human waste for more than 70 years. Portable sanitation is a lifesaving necessity when natural disasters strike. It also protects the environment, improves public health, and preserves human dignity.

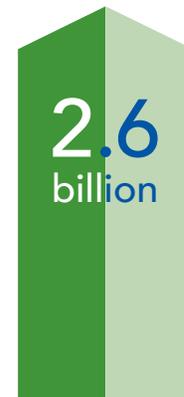
Where water and sanitation are scarce, portable restrooms provide the local population with their first-ever toilets. In places like these, portable sanitation not only provides safety and dignity, it saves lives.

WATER SAVINGS—DID YOU KNOW

When you use a portable restroom, you are contributing to the preservation of our most important natural resource—fresh water.



- Only 3 percent of the Earth's water is fresh; 97 percent is salt water.*
- Americans use more water each day by flushing the toilet than they do by showering or any other activity.**
- A running toilet can waste up to 200 gallons of water per day.*
- Americans use about 100 gallons of water per day. Europeans use about 50 gallons of water per day. Residents of sub-Saharan Africa use only two to five gallons of water per day.*
- **45 billion gallons of fresh water are saved annually through the use of portable restrooms.*****



People lack simple 'improved latrine'†



People have no access to improved drinking water†



* Source: United States Environmental Protection Agency

** Source: Florida Water Environmental Association

*** PSAI estimate. See details at www.psal.org/water-facts

† Source: World Health Organization



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THE PSAI'S VISION IS A
WORLD IN WHICH CLEAN
AND SAFE SANITATION IS
ACCESSIBLE TO ALL.

OUR CORE PURPOSE:

We preserve lives and improve experiences by providing clean, safe portable sanitation through our Member companies.

OUR MISSION IS TO:

- Assist Members in building successful businesses and serving as respected community partners
- Increase understanding of the role portable sanitation can play in addressing global public health challenges
- Expand and improve portable sanitation facilities worldwide
- Serve as the authority within our industry in establishing and evolving best practices

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