

**GRINDER PUMP
LOW-PRESSURE
SEWER (LPS)
HOMEOWNERS'
GUIDE
2024**

*City of Gulf Breeze
Public Works Department*

GRINDER PUMP INTRODUCTION

The City of Gulf Breeze has created this “Grinder Pump Low-Pressure Sewer (LPS) Homeowners’ Guide” to provide to residents who have a grinder pump installed information they need to know. In this document you will find basic information on how a grinder pump works, basic care and maintenance information, available insurance coverage, frequently asked questions, and contact information. The grinder pumps are privately owned and maintained by the property owner. Residents are also responsible for the private service line from their property line to the home.

WHAT IS A LOW-PRESSURE SEWER (LPS) SYSTEM? Low-pressure sewer systems use small underground pipes connecting to each home's individual private pump stations. This type of system requires a pump station and a holding tank at each residence. Each private pump station has a container underground to collect the sewage and a pump to push it into the sewer line. Each home needs a sufficiently sized grinder pump to collect wastewater, break it down, and pump it into the pressure sewer line. An alarm light will flash if the pump fails to operate. It is located on the control panel for the station, which is typically mounted on the wall of the home. A pressure pipe is needed to connect the grinder pump station to the public sewer force main. The individual private service line will have an in-line check valve and gate valve at the connection point to the public force main and any required valves at the private grinder pump station. The in-line check and gate valves are usually placed in a valve box at the property line.

HOW DOES A GRINDER PUMP STATION WORK? A residential grinder pump tank collects wastewater from a home’s internal plumbing. When the tank’s wastewater level reaches capacity, the pump’s float automatically activates the pump, allowing it to grind solid waste. The grinder pump then uses a pressure discharge line to pump the wastewater to the main sewer line.

WHAT SIZE GRINDER PUMP IS NEEDED? To avoid sewer problems, it is extremely important that the private grinder pump be properly sized. If the private pump is too small, it will not meet the demands of the residence’s sewage flow and potentially cause pressure problems and backups. Specifications for the private pumps are developed by engineers who design the sewer system to serve a subdivision. Private pump suppliers and plumbing contractors hired to install the private grinder pump stations and lines should review the pump specifications to ensure that pumps installed for newly constructed homes and replacement pumps are adequately sized.

WHO IS RESPONSIBLE FOR MAINTAINING THE GRINDER PUMP? Because the grinder pumps are privately owned, the pumps are maintained by the property owner. Residents are also responsible for the private service line from their property line to their home. Grinder pumps need regular maintenance to ensure consistent function. Homeowners should schedule professional inspections and servicing of their grinder pump at least once a year or as recommended in the pump's specifications. Some plumbing companies offer an annual maintenance contract for maintaining/repairing grinder pumps. The annual maintenance contracts may vary from \$100-\$150 per year. Pumps wear out over time and may require repair or replacement. The cost to replace a pump will depend on the pump selected.

WHAT IS THE CITY OF GULF BREEZE’S RESPONSIBILITY? The City of Gulf Breeze will maintain the public low-pressure sewer system from the property line to the road and flush the public system twice a year.

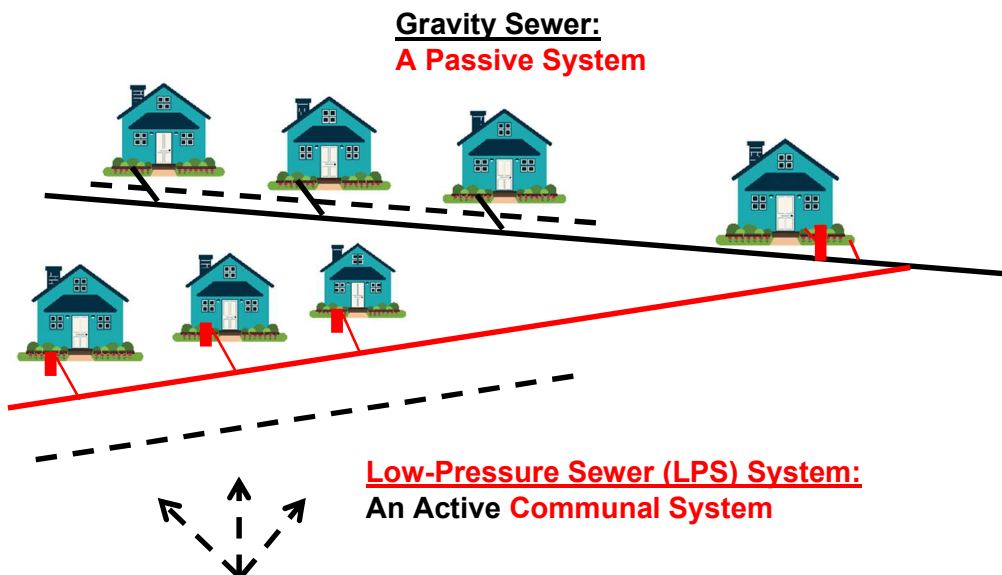
WHAT ARE THE ELECTRICAL REQUIREMENTS FOR A GRINDER PUMP STATION?

Installing the grinder pump station requires a 20-amp, 220-volt, single-phase, two-pole circuit. The pump installation plumbing contractor will check whether the residents' power supply is sufficient. If the homeowner's electrical system requires an upgrade, the homeowner will be responsible for the cost of the upgrades.

HOW MUCH POWER WILL THE PUMP USE? While the pumps require electricity, usage is typically 30-60 minutes monthly. Typical yearly electrical costs may range from \$6.00 to \$10.00. The monthly power consumption of a grinder pump station is substantially less than that of most other major appliances. This is comparable to the cost of operating a 100-watt light bulb or small refrigerator.

WHAT HAPPENS TO THE PUMP DURING A POWER OUTAGE? Like any electrical device, the pump can be powered by an emergency generator if necessary. During most electrical power outages, the grinder pump stations will have limited extra holding capacity to store wastewater. Remember that when power outages occur, residents should make an effort to decrease their water usage until power is restored.

WHY WAS A LOW-PRESSURE SEWER SYSTEM INSTALLED VERSUS A GRAVITY SYSTEM? Several factors determine whether a residence is served by a low-pressure sewer (LPS) system or a gravity sewer system. Wastewater normally flows downhill by gravity from a home's internal plumbing to a sewer lateral pipe and into the public sewer force main pipe. When a residence is at a lower elevation than the public sewer force main, it requires a use of a private pump to force the wastewater up to the communal public low-pressure sewer system. Other factors include the area's topography, distance from the sewer treatment plant, soil conditions, and the overall installation and maintenance cost. Additionally, local regulations and the availability of utility infrastructure may play a role in this determination.



Communal public system is pressurized to flow uphill by a network of private Grinder Pumps on private residential property.

Regional Pumping Station



Residential Grinder Pump Maintenance

Ensuring Smooth Operation & Longevity of Your System

Tips for Maintenance: Here are a few things homeowners should do to aid in the optimal and uninterrupted performance of their units:

- **Flush Safe Materials Only!** Avoid flushing items that may clog the system:
 - Wipes
 - Cotton swabs
 - Dental floss
 - Diapers
 - Condoms
 - Feminine hygiene products
 - Antifreeze
 - Coffee grounds
 - Cigarette butts
 - Cat litter
 - Fats, oils, grease, and grit (FOGG)
 - Gasoline
 - Household chemicals/pesticides
 - Paint
- **Practice efficient water use.**
- **Prevent excess rainwater from entering the system.** Excess rainwater can increase pumping costs & frequency, deplete the basin's available water capacity, and increase the volume of water entering the wastewater treatment plants.
- **Schedule Regular Maintenance.** Annual inspections are recommended, and repairs should be completed when they are identified. A well-maintained grinder pump may last up to 25 years, depending on the model and how often a professional inspects it.
- **Monitor the Pump.** Strange noises or backed-up drains may indicate a more significant issue and a professional may be needed.
- **Keep the area clean.** Clear the area around the pump of debris and ensure the access lid remains securely closed when not in use.

Your plumbing contractor and pump provider may contact the City of Gulf Breeze with any questions to ensure that both the pump and its installation comply with the standards required for the low-pressure sewer system serving your property.

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