

WHEN YOU NEED THE JOB DONE RIGHT, I'LL DO THE HEAVY LIFTING.

When wastewater has to get to the treatment facility and gravity is working against you, precast concrete lift stations can do the heavy lifting.

Precast concrete lift stations are versatile. They vary in size from single-home units to master lift stations serving hundreds of homes. Their flexible modular design makes it possible to meet any wastewater project.

Precast concrete lift stations are designed, fabricated and installed with the highest-quality materials and equipment. Pumps and monitoring equipment can be installed and tested prior to delivery for a quick and easy on-site installation.

After connecting, simply backfill and you are ready to start pumping. Stations are easily accessible from top hatches for quick and clean maintenance.

Get more details and see a gallery of precast concrete solutions at www.precastsolutions.org.



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WHY PRECAST CONCRETE?

Precast concrete is the ideal solution for lift stations of all sizes. Here's why:

STRONG AND GETTING STRONGER

The strength of precast concrete gradually increases over time. Other materials can deteriorate, experience greater creep and stress relaxation, lose strength and/or deflect over time. The load-carrying capacity of precast concrete is derived from its own structural qualities and does not rely on the strength or quality of the surrounding backfill materials.

QUALITY? NO PROBLEM

Because precast concrete products are manufactured in a controlled environment, they exhibit high quality and uniformity. Standard watertight sealants and gaskets are available that are specially designed for use with precast concrete, making watertight multiple-seam precast concrete lift stations easy to construct.

WE'RE TALKING VALUE-ADDED HERE

Because precast concrete lift stations are manufactured well in advance of installation, they are ready for transportation to the job site at a moment's notice. Trained technicians are capable of installing and testing pumps and monitoring equipment in a controlled environment before the lift station ever reaches the job site. Once on site, the modular components are quickly set with a crane and a small crew. Backfilling can begin immediately after inlet and outlet pipe connections are made. Also, in contrast to other materials, precast concrete is less susceptible to vibratory damage while the surrounding soil is backfilled and compacted.

WEATHER IS NOT A FACTOR

Precast concrete increases efficiency because weather will not delay the manufacturing process in the precast plant. By installing pumps and monitoring equipment in the plant, weather conditions at the job site do not significantly affect the schedule.

PROTECTING THE ENVIRONMENT

Precast concrete is nontoxic, environmentally safe and made from all-natural materials, making it ideal for use below grade. Concrete has no proven ill effects on groundwater and surface water quality. Because precast concrete lift stations are watertight, there is no risk of wastewater contaminating the surrounding soil or ground water.

NOT GOING ANYWHERE.

With a specific gravity of 2.40, precast concrete structures resist the buoyant forces associated with below-grade construction. When required, collars can also be incorporated into the modular design of precast concrete lift stations. In comparison, fiberglass has a specific gravity of 1.86 and high-density polyethylene (HDPE) has a specific gravity of 0.97, requiring the use of tie downs and ultimately increasing project costs.

BRING IT ON

Precast concrete is resistant to most substances. While no material is completely immune to chemical attack, the mix designs used to produce precast concrete can be adjusted to help withstand anticipated corrosive agents. Materials such as steel and other metals quickly deteriorate in the presence of corrosive agents, some in the presence of water alone.

Versatile modular designs incorporated with superior watertight connectors and rubber gaskets make precast concrete lift stations a key component of any wastewater collection system.

ASTM C 478, "Specification for Precast Reinforced Concrete Manhole Sections," and ASTM C 913, "Specification for Precast Concrete Water and Wastewater Structures," outline design and manufacturing requirements for consistent quality and durability.

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