

**IT'S A DIRTY JOB**

**BUT SOMEBODY HAS TO DO IT.**

**AND I'LL DO IT RIGHT.**

No it's not glamorous, but when you need the job done right, go with a proven success. Throughout the world, groundwater and surface water quality depend on precast concrete manholes to successfully convey sewer and stormwater while maintaining water quality. Their watertightness, strength and design flexibility make them the obvious choice for the toughest jobs — no matter how dirty.

Get more details and see a gallery of precast concrete solutions at [www.precastsolutions.org](http://www.precastsolutions.org)

**precast  
solutions**



## WHY PRECAST CONCRETE?

### INSTALLATION IS EASY

Precast concrete manholes are desirable over cast-in-place concrete or brick manholes due to ease of installation.

Precast concrete manholes can be easily installed on demand and immediately backfilled – there is no need to wait for concrete or mortar to cure at the job site. The degree of soil compaction around the manhole and remaining trenches is never a problem, making installation easier. Contractors are familiar with how to handle precast concrete manholes and can easily install them. Standard sealants and flexible joints are vital to watertightness.

### WE'RE TALKING QUALITY HERE

Because precast concrete products typically are made in a controlled environment, they exhibit high quality and uniformity. Variables affecting quality typically found on a job site – temperature, curing conditions, material quality and craftsmanship – are nearly eliminated in a precast plant.

### ROUGH AND TOUGH

Precast concrete strengthens with time, while other materials can deteriorate, experience 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.

Studies have shown that precast concrete products can provide a service life in excess of 100 years. For severe service conditions, additional design options are available that can extend the life of the precast concrete product. This is extremely important when calculating life-cycle costs for a project.

### NASTY WEATHER? NO PROBLEM

Precast concrete increases efficiency because weather will not delay production of the manholes. In addition, weather conditions at the job site do not significantly affect the schedule because less time is required to install precast compared with other construction materials, such as cast-in-place concrete or brick.

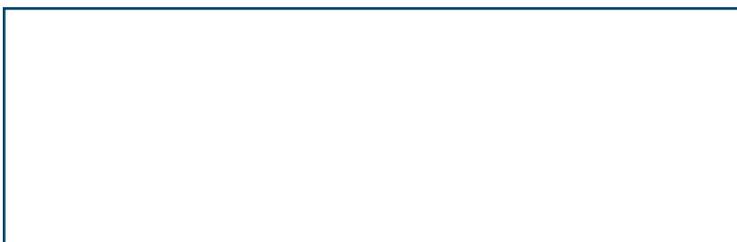
### WATERTIGHT — CAN DO

ASTM C 478, "Standard Specification for Precast Concrete Manhole Sections," specifies the proper manufacture of quality, watertight precast concrete manholes. Standard watertight sealants and gaskets are available that are specially designed for use with precast concrete, making multiple-seam precast concrete manholes very easy to construct. Vacuum testing is an easy means of verifying watertightness, either in the plant or in the field, as detailed in ASTM C 1244, "Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test."

### WILL STAY ON THE JOB

With a specific gravity of 2.40 and superior frictional resistance, precast concrete manholes resist buoyant forces better than all other manhole materials. Fiberglass has a specific gravity of 1.86 and HDPE has a specific gravity of 0.97, requiring the use of tie downs and ultimately increasing project costs.

With the many advantages over alternative products, precast concrete manholes are clearly the material of choice for long-term maintenance-free conveyance of sewer and stormwater.



# precast solutions