

A construction site showing three workers in hard hats and safety vests. A yellow concrete pump truck is pouring a thick, grey flowable fill into a large, circular concrete pipe section that is being installed in a trench. The truck has 'CHANEY ENTERPRISES' and a logo on its side. The background shows a building under construction with yellow scaffolding.

RELI-A-FILL

The Smarter Way to Backfill

Flowable fill is the most economical option for backfill when you need a job done right (and quickly) the first time.

ChaneyEnterprises.com/FlowableFill

CHANEY
ENTERPRISES

FLOWABLE FILL CAN:

Cut Costs

Because it flows into place, flowable fill reduces the cost of manpower and equipment. While traditional compacted fill requires two laborers for placement and two laborers for compaction, flowable fill requires only one laborer for placement and no compaction (Figure 3). Using flowable fill also eliminates the need for conventional backfilling equipment such as compactors and backhoes (Figure 2).

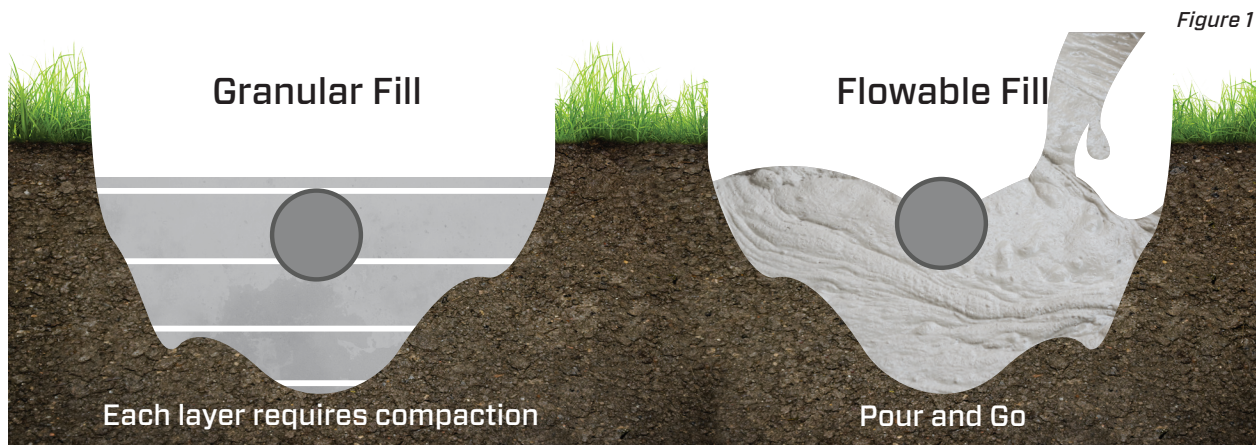
Simplify Construction

In addition to cutting costs, flowable fill will help you avoid the headaches caused by traditional backfill materials while speeding up construction:

- Because it flows into place, flowable fill eliminates the difficulty of properly compacting material under and around pipes (Figure 1).
- Flowable fill has controllable set times and allows the job to be completed faster.
- It can be placed underwater, so in some cases trenches that contain water or moisture may not have to be pumped before flowable fill is installed.
- Flowable fill eliminates the site crowding that comes with storing backfill materials on-site.
- It can be color-coded for utility identification.
- When the time comes to remove entrenched pipes or utility lines, some flowable fill mixes can be excavated with a shovel or pick.
- It is easily conveyed by pump, chutes or buckets.

Color Coding for Safety

Using integral color, Reli-a-Fill can be color coded to match the American Public Works Association's **Uniform Color Code** (Figure 2). This clearly alerts those digging in the future that they are near utilities and what type of utilities they are.



Guarantee Backfill Densities

The most common complaint from public works directors is improper backfilling. Frequently, contractors are called back to repair settlement problems. Flowable fill ensures that backfilling will only need to be done once. Even lower strength flowable fill mixes offer twice as much strength as traditional backfill, and some flowable fill mixes can have as much as 10 times the strength of traditional backfill. Strengths are typically specified in a range from 100 psi to 1,000 psi, depending on project needs. Lower strengths are typical for utility work, which may need to be excavated in the future.

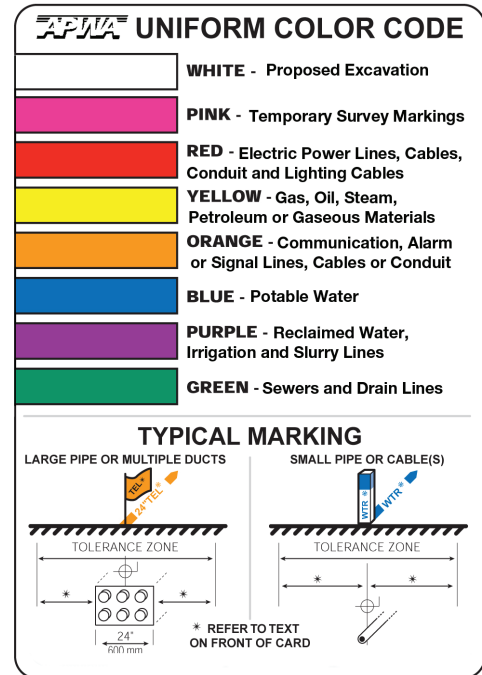
Prepare Surfaces for Concrete Overlays

Before a concrete overlay (called whitetopping) is poured, cracks in the existing asphalt should be filled with flowable fill that easily flows into cracks and crevices. This is an inexpensive way to avoid mirror cracking, which occurs when cracks form in the whitetopping in the same places where there are cracks in the asphalt.

Reli-a-Fill

is delivered on a mixer truck and has similar ingredients to concrete, but it isn't concrete. Instead, the cement, sand, water and fly ash combine to create a sturdy substitute for traditional fill that is also sometimes called controlled low-strength material (CLSM). Because it flows into place, flowable fill requires no compaction. Its viscosity and strength can be altered to meet the needs of any backfill projects, and its fluidity allows it to flow long distances to even the hardest to reach places. But that's not all it can do...

Figure 2



Use Flowable Fill as backfill for:

- Utility Trenches
- Building Excavation
- Bridge Abutments
- Roads Abutments
- Road Base
- Sub Footing
- Floor Slab Base
- Pipe Bedding
- Concrete or Brick Paver Base

FAQS

How is Flowable Fill slump measured?

Because flowable fill is such a fluid substance, it is measured by spread instead of slump: a cylinder is filled with flowable fill, then lifted vertically, allowing the flowable fill to spread across a level surface. A mix with good flowability should spread more than 8 inches. Be sure to follow ASTM standards when testing flowable fill.

How long does it take for Flowable Fill to cure?

Flowable fill does not need to be cured like concrete because the mixture does not harden through hydration, but instead the mix settles and excess water bleeds off. The higher the water content of flowable fill the better, because too little water will restrict proper settlement and low water content will not likely speed up the hardening process. Regardless of temperatures and environmental conditions, flowable fill can be designed to accommodate construction needs. Specific requirements for set time should be discussed when ordering Reli-a-Fill.

Is Flowable Fill more expensive than traditional backfill?

While flowable fill is more expensive than traditional backfill, it more than makes up for it with labor and equipment cost savings: labor and equipment costs for granular fill are 600% more expensive than that of flowable fill.

Figure 3

Sample Labor Cost Comparison	Granular Backfill	Flowable Fill
Placement (2 laborers @38.60*)	\$77.20	\$38.60
Compaction (2 laborers @ 38.60*)	\$77.20	n/a
Heavy Equipment Operator	\$50.40*	n/a
Hand Compactor	\$16.50*	n/a
Backhoe	\$27.50*	n/a
Total labor/hour for granular fill	\$248.80	\$38.60

* National Industry Average including overhead costs

84% LABOR COST SAVINGS

888-4-CHANEY
888-424-2639
ChaneyEnterprises.com

CG18-500

CHANEY
ENTERPRISES