

# ICF

Insulated Concrete Forms

Quiet. Comfortable. Simple.  
ICFs provide lasting value.

[ChaneyEnterprises.com/ICF](http://ChaneyEnterprises.com/ICF)

**CHANEY**  
ENTERPRISES

**CHANEY ENTERPRISES — the leading concrete production company in Maryland, Virginia, Delaware, and Washington D.C. — offers ICF blocks and concrete that combine for strength, durability, and unbeatable value.**

Since the 1940s, insulated concrete forms (ICFs) have provided owners with unparalleled insulation. These systems were first used in Europe to restore damaged buildings after World War II. Today, with rising materials costs, energy costs, and disaster-related costs, ICF's are growing in use like never before.

## Why Use ICFs

ICFs are insulated foam blocks that lock into place (just like Legos®) and are then filled with reinforced concrete. **They provide protection against adverse weather and termite damage, are easy to install and maintain, and offer great value for money.**

The ICF market has grown measurably in recent years, thanks, in part, to the simplicity of ICF systems. In 2006, North America used 17.4 million square

feet of ICFs, according to the Insulating Concrete Form Association. In 2016, this number had skyrocketed to 104 million — a six-fold increase in just a decade. In 1996, 90% of the buildings using ICFs were in the residential market. Today, 30 percent of buildings with ICFs are in the commercial sector. Restaurants, bars, theaters, retail outlets — all these businesses now use ICFs. It's safe to say that ICF is now one of the most popular building systems in the world.

## ICF IS THE SMART CHOICE

# Value for the Money

ICF construction costs typically range from a 5% cost savings to a 5% cost premium depending on many factors. No matter where initial costs fall, ICFs provide long-term economic benefits. The most notable financial benefit is a reduction in heating and air-conditioning costs between 25% and 45% depending on several design factors.



### SPEED OF CONSTRUCTION

ICF installation is relatively simple when compared to traditional materials. It's much quicker, too. ICF construction could save you weeks or even months on your building project. This is because ICF combines several steps by acting as the building's structure, furring, insulation, and vapor barrier. Once the concrete sets, your walls are ready for whatever wall finish you desire. Normally, it takes just one small construction team to build even a large ICF building. This provides you with two main economic benefits:

- Your project will build faster, reducing labor costs.
- The quicker construction ends, the quicker tenants can move into your building and start paying rent and the sooner any financing will be paid off.

It is crucial that you choose the right construction team professional for your project. An experienced team will understand how to capitalize on ICF's built in efficiencies. If desired, Chaney Enterprises can recommend contractors who can complete your ICF project quickly. Proper design is also crucial to a fast and economical build. Through membership in the National Ready Mix Concrete Association, **Chaney Enterprises can offer design assistance to either convert existing projects, or to design from scratch.** Designing with ICF in mind will be less expensive and faster than converting a design.

**DESIGN**  
ASSISTANCE  
OFFERED



## Trade Efficiencies

Plumbers and electricians, who are **properly trained**, find ICFs easy to use. Although tradespeople need the right knowledge and skills to install ICFs, these systems offer much in the way of flexibility. Insulated Concrete Forms come with reference marks, which speed up the construction process.

## Lower Insurance

ICFs are lightweight meaning fewer injuries during the construction process and insurance costs may be lower. Many insurance providers offer lower-cost construction insurance products if you are building with non-combustible materials such as ICF.

You could continue to save money once your project is complete, too. Because ICF is more resilient in the face of natural hazards, some insurance companies may adjust premiums for a stronger-built building.

## Natural Hazard Protection

Adverse weather has a detrimental impact on buildings in our area. Tornadoes, in particular, cause massive damage to property infrastructure. The Washington, DC area is surprisingly plagued by tornadoes, with Maryland having the third-highest tornado density in the United States.

The devastation of Hurricane Sandy that narrowly missed the DC area still lingers in our collective memory. ICFs offer protection and peace of mind in the face of these monster storms. Research from the National Wind Institute shows that homes with walls made from ICFs protect people and property from windblown debris more effectively than buildings with walls made from wooden frames.

According to the Federal Emergency Management Agency (FEMA), buildings with concrete walls also mitigate flood risks, and you can expect lower insurance premiums. ICFs also have fire resistant qualities, which provide you with more protection in the event of fire — a manmade disaster that killed 117 people in Maryland, Virginia, and DC in 2016.

While we may not know what disaster will strike, we can be certain that something will happen. Durable and resilient ICFs provide the solution.



## ICF IS THE SMART CHOICE

# Less Maintenance

ICFs require far less maintenance than conventional building systems. With less rot from mold and mildew, and more protection against termite damage, you won't have to spend time and money replacing wood and beams.

## Quiet Comfort

The most frequent complaints of tenants in both commercial and residential units are indoor air quality, uneven heating and cooling, and the loudest complaint of all – noise itself. The insulated concrete walls do more than what we've mentioned to keep moisture and temperature outside: they also keep the noise outside.

The Sound Transmission Class (STC) rating measures how sound travels from one side of the wall to the other. Most ICFs with a six-inch concrete core have an STC rating of 50 to 55. Insulated 2x4 wood stud walls have an STC rating of about 38.

50 versus 38 may not sound like a lot, but the decibel scale is logarithmic, so 50 decibels is **ten times louder** than 40 decibels. That means ICF walls stop more sound and give you less noisy complaints.



## Termite and Mold Protection

Termites plague the Mid-Atlantic states, especially during the summer. ICFs, with their concrete core, offer sufficient protection against termite damage. Unlike wooden structures — which termites feed on — pests cannot damage the foam and concrete walls, saving you a lot of hassle and money.

ICFs also safeguard against mold and mildew — two types of fungi that can damage your property. ICF systems provide enhanced moisture control, preventing your building from becoming a breeding ground for rot and decay.

## CHANNEY CASE STUDY

# Washington Square

Built in 2006, the Washington Square Community in La Plata, MD offers a perfect study in the benefits of ICF construction. This multi-family development is a mix of duplex homes and townhouses. Built next to railroad tracks that see daily use, outside noise was a huge factor when considering building materials. Half of the rental units closer to the tracks were built in ICF, while the other half were built with conventional wood construction. All use electric heating and air conditioning.



Outside noise was a huge factor.

In partnership with the local utility, we conducted a five-year analysis of energy consumption, comparing the wood-frame and ICF structures. **Savings reach as high as 46% in the hot summer months and 36% in the winter.** Much of the difference between seasons is an overall increase in electrical use as lights and other appliances typically used more in the dark, cold months.



## CHANEY CASE STUDY

# Chesapeake Village Center

Built in 2017, Chesapeake Village Center in Stevensville, MD is the largest ICF structure in Maryland to date. The development is a mixed-use project featuring business on the first floor and residential units occupying the top three floors. Citing the durability of concrete construction, owner David Azar says, while he's happy to be providing a superior structure for his tenants, the driving factor in his choice of ICF was his own family. He notes the durability of the building will provide headache-free security for his daughters and future grandchildren long after he is gone.



Headache-free security.



Currently under construction. Architectural rendering.



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**We will go the extra mile to make your job easier by providing great people, accurate information and the finest products to you the first time, on time, every time.**

**Additional products:**

- Ready Mix Concrete
- Sand, Gravel & Stone
- Drain-Crete (Pervious Concrete)
- Insulated Concrete Forms
- Flowable Fill
- Self-Consolidating Concrete

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