

# CASE STUDY

## FLOWGUARD GOLD® PIPE AND FITTINGS CHOSEN FOR THE NEW AMERICAN CASTLE TO COMPLEMENT HIGH-END PRODUCT OFFERING

### **Kim & Patricia Baker**

*Middlefield, MA*

*Established: 2002*

### **Water Quality and Energy Efficiency Top Castle Owners' Criteria for CPVC Plumbing Alternative**

It's not often that you hear about a castle being built on American soil. So when one is built, it's little wonder that nearly every phase of its construction is watched closely by both the media and leaders in the building industry. And for the domicile that's fit for a king, so to speak, of course only the best interior products and features will do.

That was the feeling of Kim and Patricia Baker, who first got the idea to build their regal residence more than five years ago (although Kim professes an interest in medieval history that dates back about 25 years). The project, which has become known as The New American Castle, broke ground in 2002. The three-story, 11,000-square-foot castle, located atop 75 wooded acres in Middlefield, Massachusetts, features the latest



materials and technology. Unlike the dark, drafty castles that were built in Europe centuries ago, this new showpiece promises to be a comfortable, luxurious residence that is fireproof, soundproof and even earthquake proof. Every effort has been made to replicate the appearance of an old-fashioned castle on the outside but with 21st century technology and some of the most luxurious amenities inside.

Kim Baker, a semi-retired, professional race car driver who is today also employed as an automotive engineering consultant, assumed primary responsibility for carefully selecting each and every product and material that is featured in the castle.

"I researched every aspect of this project thoroughly," said Baker. "We are very conscious of health concerns, including air and water quality, so every product we chose had to meet the strictest standards."

Water quality was a primary concern that Baker addressed when it was time to choose a plumbing system. "I knew that there were essentially three options – copper, PEX and CPVC," Baker explained. "I read every builder magazine published and kept up with the technologies. From everything I had heard and read, CPVC was the plumbing system we wanted to use, and FlowGuard Gold® CPVC, specifically, was the clear alternative. We could have had any product inside the castle, but I liked that the FlowGuard Gold® CPVC system didn't conduct or lose heat the way copper does; energy efficiency is definitely a priority for us. I also liked the fact that there was less condensation, because we didn't want any excess moisture or mold. With less condensation and heat loss, that also meant we had to insulate less. That meant a cost savings, which is always a good thing."

With his engineering background, Baker approaches most things in life from a more analytical perspective than the average consumer. "I ask a lot of questions and weigh the benefits before making a decision," said Baker. "With the FlowGuard Gold® product there were so many advantages to consider. We discovered that it was easier to install and more forgiving than copper. Watching our plumber, it appeared to be a simple process of cutting and fitting. There were no torches, which is good, because I get nervous when I see a welding torch around wooden studs."

Baker considers himself a very knowledgeable consumer who is attracted by state-of-the-art technologies and new advancements. "I expect high efficiency and durability from the products I choose. The FlowGuard Gold® CPVC system met all of my criteria."

More than anything, however, Baker wanted a product that would not compromise his water quality. "I've never been a fan of copper pipe," said Baker. "Corrosion in Massachusetts is a major problem. Just go down to any basement and look around; you'll see a lot of corrosion on the copper pipe. If there's moisture on the outside, then it's natural that you get corrosion. With copper there are just too many risks and variables. If you don't clean the excess flux sufficiently or if you don't fully debur the pipe, then it corrodes even faster. But with FlowGuard Gold® pipe, there are no corrosion concerns."

In Baker's profession, he is often responsible for doing quality and durability testing for leading car companies.



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**Type of Construction:**  
**Residential**

**Installation Type:**  
**New**

**FLOWGUARD GOLD®**  
PIPE & FITTINGS  
**NOT A DROP OF DOUBT.**

# FLOWGUARD GOLD®

"Quality is a part of my life, so I know it when I see it," noted Baker. "I have previous experience in building a home, but this one far surpasses that in the plumbing category. FlowGuard Gold® CPVC is definitely the highest quality plumbing product I've come across. It's more durable because it cannot corrode. It's energy efficient. And it's easier and less expensive to install."



The installation was so fast, in fact, that the Bakers' plumber estimated it reduced his labor time by about a third of what would have been spent using copper. This was a key advantage for the local two-man shop, because it allowed them to be more competitive with larger companies in the area. "Our plumber, who had never before worked with CPVC pipe, told us he didn't need to use as many tools and that the joining process was significantly faster," said Baker. "He also liked how it reduces noise and condensation. Many copper pipes

really sweat in this region due to the humidity. And occasionally he would get complaints about banging pipes when using copper. But those concerns are virtually eliminated by using the CPVC system."

Cost savings was another installation benefit. Not only is the FlowGuard Gold® system less expensive because of the labor savings, but the material costs are significantly lower in light of skyrocketing copper prices.

Baker was quick to point out, however, that cost is only a small part of the overall decision.

"There are other places inside the castle where copper is being used," said Kim. "These are places where copper belongs for aesthetic reasons, such as the roof, gutters and other architectural elements. But it definitely does not belong in my water supply. A FlowGuard Gold® CPVC system offers a longer lasting, cleaner alternative."

Since Lubrizol's development of CPVC plumbing systems over 45 years ago, more than three (3) billion feet of CPVC pipe has been installed in homes, condominiums, buildings, apartments and hotels, including twelve (12) million homes. For more information on the FlowGuard Gold® plumbing system, including pipes, valves, joining cement, caulks, sealants and tools, call 1-888-234-2436, X7393, or visit [www.flowguardgold.com](http://www.flowguardgold.com).

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