## BASEMENTS LOW WRITTEN BY: MEDDIE STEWART

Tornado season is upon the Lone Star State, posing a stormy and windy threat through the spring and summer seasons. While they typically occur between the months of March and August, with the occasional outlier of course, most tornadoes tend to sweep through towns and across plains between April and June, peaking in May.

Thinking about tornadoes, you likely imagine that funnel shape descending from the sky, as seen on the big and small screens. Just the thought, and the noise of eerie winds outside the window coupled with the distant sirens, will send any Texan straight to an interior bathroom or closet, covering themselves with bedding while the storm hopefully passes uneventfully.

In the movies, people often head to the basement or storm cellar, bunkering below ground while the wind whips around their home above. However, most Texans do not have experience with basements. They may have never seen a house in the Lone Star State with one, and it is certainly not on most wish-lists when it comes to buying or even building a home. This begs the question: why not?

"It is possible to have basements anywhere in the United States, in any soil," explained David Yowell of David Yowell Construction LLC, located in McKinney, Texas. A custom builder and home remodeler, Yowell specializes in basements. Traditionally, basements were built out of block wall, and this material did not hold up well in Texas's expansive soils, resulting in leaks. "Basements today are engineered to withstand expansive soils or any other foreign object that may cause structural damages," Yowell reassured.

However, it is still not advisable to build a basement in an area prone to flooding. Yowell explained that modern basements do come with a gravity flow drain system or sump pump that removes water from the subsoil surrounding the structure. If

the loss of electricity is a concern, residential gas generators can ensure the pump will work even during a power outage. "Safety and comfort does not have to be inconvenient with the current construction techniques available," said Yowell.

When it comes to building or adding, it is certainly easier to plan for a basement during the initial building process rather than adding one in later, although even that is not impossible. A customized full basement planned from the beginning ranges in price between \$150 and \$200 per square-foot. But this can increase depending on how it is finished out or possibly decrease if the basement is walk-out. "Adding a basement after construction is significantly more expensive and can triple the price," said Yowell. Major issues that factor into adding a basement to an existing home are construction access and lot topography.

While basements can come in handy during a severe storm, most of the year they need to serve another purpose to make adding one practical. "You can finish out a basement to be a nice quiet office, media room, game room, or guest bedroom," suggested Yowell. "[They] can have bathrooms, fireplaces, and kitchenettes ... it is only limited to the person's ideas and budget."

When it comes down to safety in a tornado this coming storm season, getting below ground is ideal. But the ceilings and type of basement also matter when it comes to building the most protective space possible. "The safest basement is a full basement with a reinforced concrete ceiling. Being below ground during tornadic weather will keep you from being in a structure that can be blown away." In the worst of situations, the reinforced ceiling can protect those inside from projectile debris. "The risks are countless, the gravest being injury and death." Yowell added, "Take it from a person who has been in a tornado; they are extremely deadly."

