

# DRB

## Durable Residential Builders, LLC

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*Durable Residential Builders (DRB)* is a company that was formed in order to build the *type* of home in which you now stand. This project is the result of a collaboration between DRB and Texas A&M University; during which every component (e.g. windows, walls, insulation, HVAC, etc.) that goes into the construction of a house was examined for the best 'bang for the buck' efficiency, sustainability, durability, safety and comfort. Some products were chosen for their ability to work with other systems and yield synergistic benefits. Still other products, while seemingly over-kill, add significantly to the 'feel', security and/or durability of the home. And some technologies, while tremendously 'green,' didn't make 'sense' to us and thus are not here.

While some see a house as the sum of *different* parts- we see the sum of *integrated* parts, in concert, equaling a complete and sensible '**Building System**'.

The USGBC (*United States Green Building Council*) rates the 'green-ness' of homes in their LEED (Leadership in Energy and Environmental Design) for Homes program. In that program there are approximately 136 points available. To achieve the highest ranking of 'Platinum', 90 points must be earned. Based on our most recent conversations the finished house in which you stand is expected to earn 125+/- points.

The IBHS (*Institute for Building and Home Safety*) rates houses for the insurance industry and the house you are standing in is rated to 130+mph wind rating plus impact resistance and has achieved the 'Fortified' rating. Not only does that mean an extremely safe house, but also may mean a reduction in the homeowner insurance rates of up to 70%. Our Building System is the first home in Houston that is **both** LEED platinum and 'Fortified'. Green, Safe and Secure.

Notice the wires sticking out of the walls and floors? The **Building System** will be studied by Texas A&M in order to quantify the results of our efforts. We hope to contribute to the understanding of energy transfer, heat transfer, thermal mass, insulation/radiant barrier interactions, etc. in a residential model. We also hope to comment on overall comfort and will also be able to publish data on the **Building System** as a whole.

Furthermore, it is commonly understood that building 'green' can easily be done with an unlimited budget. We feel that 'no-expense-spared' 'green' building buys you bragging rights, but does not encourage real progress in the residential building market. Financially, we stand by the conclusion that our **Building System** can be built for a price that is competitive with many of the higher end houses currently on the market. Furthermore, we contend that this house will be as much as **two to three thousand dollars less per month** to live in than an equally sized wood framed home.

Finally, don't be confused, the **Building System** is not experimental. It represents the integration and study of known and established products and technologies, in a global interactive way.

We hope you enjoy looking at our project during our '**Behind the Sheetrock Tour.**' Of course, we will 'dress' the house in all the lovely cabinets and granites, closets, finishes, floorings and landscaping that you see in other high-end homes -but the difference is in HOW the home is built as well as WHAT it is made from! The difference is huge, both philosophically and actually -and *that* is what you have been invited here to see. We hope you'll come back when the house is 'fully dressed!'"

Please feel free to approach Jim Kuchenbrod or Ker ("Care") Thomson with any questions. You are also, of course, encouraged to approach any of the product experts with any specific questions as well. Thank you for coming and looking.

The **Building System** includes:

An HVAC system that is chilled water based (not Freon based) that yields increased efficiencies, from **Allied Energy** and **HVAC Direct To You**.

Back-up power generation by **RUUD** (15kw will run the whole house), **HVAC Direct To You**.

**BuildBlock** ICF (insulated concrete form) walls.

**Pella** aluminum clad Impact Zone windows.

Metal **Decra** shingles.

A sealed attic system with **Icynene** open cell foam insulation by **Energy Efficient Insulation**.

**Standard Renewable Energy's** solar panels and **Velux** sky light.

5000 gallon Rain harvesting and storage from **Rain Tube**.

Drought resistant landscaping, drip irrigation (less water usage), from **Moss Landscaping**.

Environmentally sensitive flooring using plank flooring and new low VOC finishes by **International Flooring**.

Structural Engineering by the **Interfield Group**.

Whole house vacuum system installed by **HVAC Direct to You**.

Security, lighting control, distributed audio/video/computer by **Aveon** and **Intelli-Systems Technologies**.

Hot water system including a hybrid hot water heater by **Eternal** and Solar hot water by **Enerworks**, through **Standard Renewable Energy**.

Radiant Barrier (TCM) by **Horizon Energy**.

Energy Star appliances by **SubZero**, **Wolf** and **Kiva**.

Water efficient toilets and fixtures through **Kiva**.

Low VOC paints by **Sherwin Williams**.

Wine room with FRC woods by **Grotto Wine Cellars**.

Fresh air intake/exhaust fans (ERVs) from **Fantech** through **HVAC Direct to You**.

LEED rating done by **Bureau Veritas**.

"Fortified Rated" by the **IBHS** (Institute for Building and Home Safety).

Home design by **Rice Residential Design**.

And one more thing: (**Legal disclaimer**) Please be aware that you are on/in an active construction site, with that comes inherent risk. Please be cautious and watch your step and your children. We have prepared the site for you visit within the limitations of this stage of home construction, but we cannot address all the possible risks. Thus you assume these risks in being here. So, please be careful.

Thanks again.