HOLTON ESTATE DETAILS

From the Builder, Carl Ferrell

> *"There's almost nothing in this house that's not awe inspiring." – Carl Ferrell*

Construction & structure:

- The residence was built using insulated concrete forms (ICF), which Carl describes as both extremely strong and energy efficient.
- The residence is supported by an engineered deep foundation system incorporating approximately 150 pilings.
- A post-tensioned slab was constructed over the foundation system.
- The framing uses engineered lumber rather than conventional dimensional lumber, in part because of the extraordinary wall heights.
- The complicated roof was common-framed rather than constructed with conventional roof trusses, incorporating structural members spanning approximately 60–70 feet.
- The house carries a heavy slate roof.

Windows, doors & exterior woodwork:

- The windows were supplied by a German manufacturer.
- Installation was specialized enough that personnel were flown in from Germany to install the windows and doors.
- The doors use German multi-point locking hardware.
- The windows are made of Ipe, selected because of its stability and resistance to rot in Florida's climate.

- Exterior cornice work is also Ipe.
- Interior moldings are custom designed; there is no stock molding in the house.
- Interior arch trim was custom manufactured locally.

Kansas limestone:

- Dr. Holton found an image of a stone house and told Carl, the builder, essentially, “This is what I want.”
- Carl tracked the stone to a source in Kansas.
- Approximately 80 semi-truck loads of stone were delivered for the project.
- A specialist initially came from Kansas to teach the local masons how to lay it.
- After the first section was installed, Carl's mason decided it wasn't right. They tore it back down and started over.
- Although the finished stone appears random, the masons developed an underlying organization to the pattern.
- Carl describes the stone veneer as approximately 6–8 inches thick.

Great room / elliptical dome:

- The main room has approximately 24-foot ceilings.
- Its defining architectural feature is a true elliptical dome.
- Carl says it was one of the most difficult things he had ever built.
- The dome was mathematically framed to form a true ellipse.
- Craftsmen experienced in historical architectural work plastered it.
- Unlike the wall system, the dome is true plaster over lath because of its curvature.
- Dr. Holton designed the beam work.
- HVAC was deliberately integrated around the perimeter, so the vents are

largely concealed.

Walls & finishes:

- The walls are not ordinary textured drywall.
- They used gypsum board as the substrate with a sophisticated three-to-five-coat plaster system over it.
- Carl describes the resulting walls as completely smooth and says achieving that finish on walls of this scale is particularly difficult.
- Venetian plaster was used in certain rooms.
- The craftsmen responsible for this work traveled nationally doing historical projects; Carl found them while they were working on the historic courthouse in Thomasville.

Stone flooring:

- Dr. Holton wanted the stone flooring laid without visible gaps between the pieces. Even though they purchased rectified stone, it wasn't precise enough for him. According to Carl, they had to purchase roughly twice the normal amount and sort through it to find pieces square enough to achieve the desired result.

Fireplaces:

- The house has four Rumford fireplaces.
- Carl specifically says they are not conventional fireplaces.
- One masonry fireplace is approximately five feet wide.
- Some mantels were sourced from Europe.
- When components did not match the shop drawings, pieces were recut or

remanufactured to achieve Dr. Holton's intended design.

Wine room:

- Custom rather than prefabricated.
- Extensive Ipe cabinetry/paneling and bottle storage.
- Has its own independent HVAC system to separately control temperature and humidity.

Theater:

- Extensive acoustic treatment.
- Floor isolation membrane.
- Rubber soundproofing layer.
- Separate subfloor above the soundproofing.
- Carpet above that assembly.

Primary suite:

- Primary suite includes its own sitting room.
- Large his-and-her closets.

Mechanical systems:

- Commercial high-efficiency gas boilers.
- Boiler-based heating/air system.
- Commercial central vacuum system.
- Retractable/in-wall vacuum hoses.
- Systems were designed specifically to anticipate maintenance and operating

issues.
- Carls says - “nothing normal.”

Potential bedrooms:

- Dr. Holton's and Marie's two offices could potentially become bedrooms.
- An adjacent area could relatively easily be converted to a bathroom.
- Another large room upstairs near the theater, originally intended as an exercise room, could potentially accommodate additional bedroom/bath space.
- “Paul's room” has its own bedroom and bath, separate exterior access, extensive storage, and could function well as a mother-in-law/guest suite.

Construction timeline:

Carl says he worked with Dr. Holton on the property for more than **10 years**, while construction of the main residence itself took almost **six years**. He later returned for gates, driveway, infrastructure, pool house and other work.