



A 50+ WALK-EVERYWHERE COMMUNITY FOR ACTIVE SENIORS, COMING TO TROY

- A Great Close-In Location!
- 2 Parks – One Public, One Private
- Walk Everywhere! In the Parks, to Services
- Walgreens, Banks, Restaurants Nearby
- A Creative, Lovely Design to the Community
- Beautiful Homes, a “Cottage-Like” Feel
- Built Around Safety, Livability and Economy
- An Unusual Musical Theme Throughout



- **AND...built around Concrete-Styrofoam Walls!! See the next two pages!**

Contact Merrill Ottwein; 781-1822
Merrill@homerelo.com

This appears to be “An Ultimate Upgrade”, and will be adopted for use within Serenade:

The idea...to build our 50+ community homes with “ICF-built concrete walls”...(ICF = Insulated Concrete Form);

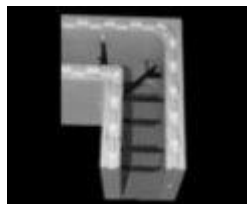
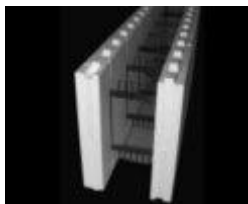
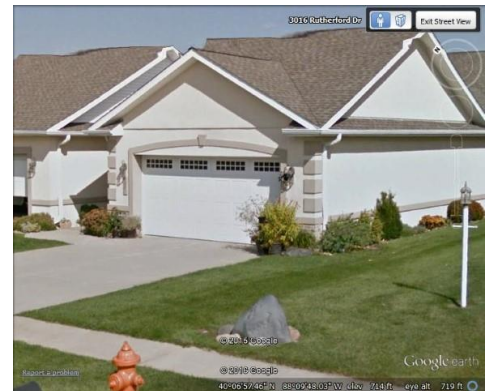
It’s a system of foam blocks that, when filled with reinforced concrete, create a unitized sandwich of concrete and foam.

Evidently, this idea has been growing steadily continent-wide, but not locally. It has quietly achieved an advanced technical level, at competitive costs. It’s more popular in colder climates and has incredible proven benefits, primary and secondary. A great deal of general experience has been accumulated, and practical "systems" have evolved making it more affordable. Secondary benefits enabled would add to the justification.

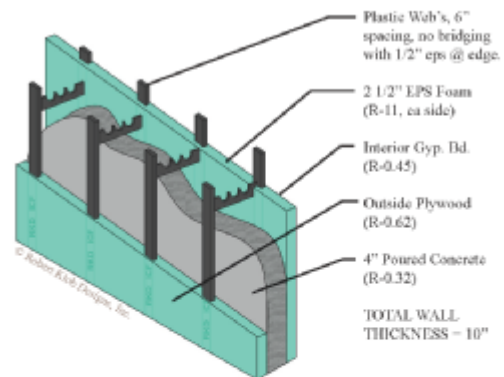
It surely is the ultimate in wall construction: It uses manufactured polystyrene “forms”, where 4-6" space is created between two layers of 2.5" foam, into which a) reinforcing rods can be placed and b) concrete poured. The ideal is to pour a whole floor at one time, therefore creating a monolithic concrete core, with 2.5 inches of insulation on both sides, each of which is ready to receive a required covering; drywall on the inside, or on the outside, anything. They go together in a quick process reminiscent of Legos blocks.

All is simply left in place. Basement walls use 6” of concrete, 1st floor walls without a second, 4”. Electricity and plumbing can go in raceways easily cut into polystyrene; before surfaces are applied. usual. Hangers are provided for floor joists, holes for essential utilities. It’s a bit more difficult than this sounds....a great deal of detail supports a final product that’s straight and level, without accidents of bursting or even failing before it’s done. After that, its firm forever, (see reverse for benefits).

The result can be identical to conventional looks, except for the thicker walls. Proponents claim that any low-rise home, (up to 2 stories + basement) can be built with these walls. In our case, we would pour foundations and create the first floor deck before pouring the first floor walls. Gables could be added.



4" CORE ICF WALL



Concrete has a low R value, but unlike BATT insulation, it’s thermal mass has the capacity to store warmth or cold. This results in moderate indoor temperature fluctuations, slower transfer of heat through the building envelope, and the ability of a building to store energy and shift peak energy requirements.

Energy savings due to thermal mass is dependent on climate. Mass has the greatest benefit in climates with large daily temperature fluctuations above and below the balance point of the building (55 to 65°F).

- Walls have zero infiltration (convection), and greatly reduced conduction of heat.
....“R” factors are usually more than doubled over ordinary 2 by 4 walls...30 and up.
....the concrete becomes a “*Thermal Mass*”, evening out extremes of outside temperature.
....it all contributes to huge savings in utilities...reductions to less than half are common.
- Non-combustible...concrete will not burn; foam will melt but not support combustion.
- Nearly indestructible by forces of weather, (*), even resistant to earthquakes.
- Outside sounds reduced by 70-80%.
- Exceeds all existing code requirements everywhere.
- Does not rot or support mold, even if allowed to get wet.
- Insect and rodent proof.
- It even saves time in constructing foundations and walls,
....cures concrete faster, gets the home under roof faster, minimizes damage.

(*): In Moore, OK, and elsewhere, although some of the roofs have been destroyed, the walls withstand tornados. In California fires, only homes with concrete walls did not burn in the “flash fires” that swept the hillsides.



Secondary benefits enabled:

- Lower fuel bills by 40-60%.
- Greatly increased safety for occupants; “*safe rooms*” made easy.
- Outside sounds reduced by 70-80%, party wall sound non-existent.
- Greatly reduced maintenance...nothing to mold, rot or rust.
- Enables consideration of all-electric energy;
....saving gas tap-on fees and distribution expenses, and eliminates
....all danger of gas leaks, and the need for combustion air and exhaust.
....but so would it deny cooking-with-gas, preferred by some.
....circulation and filtration of inside air still recommended,
- The sizing of heating-cooling equipment can be reduced by 50%.
- Home insurance should be greatly reduced.
- Overall values are preserved into the indefinite future; resale enhanced.
- The homes qualify for all kinds of “green” awards:
....up to half the lumber otherwise used...several large trees saved.
....A “LEEDS-Green” designation is automatic, could be higher.



A luxury home built with concrete walls.

In the face of such enormous benefits, the cost differential could be easy to justify. Other projects estimate that added costs are repaid within 3-4 years by utility savings alone. Already, we would believe that achieving this performance with traditional building methods in place would be impossible, or would be much more expensive.

And it should not affect the appearance in any way. The single visible change: windows and doors are set into thicker walls, and so window sills are larger....and everyone loves them!

Resources: (internet and Facebook)

BuildBlock.com
FoxBlocks.com
HobbsBuildingSystems.com
RKDZNS.com (an architect)
UTube.com; Use “ITC homes”
or company names.

Edison advocated concrete homes.
He predicted: “*Concrete homes will revolutionize home building in America.*”
He may have been 100 years early.

