

Commissioners,

I am writing for myself – I support full historic recognition and designation for 2502 Park View.

2502 Park View was one of the experimental houses in The Air Conditioned Village, used to determine how residences could/should be air-conditioned. The experiment was to try various ways to install air conditioning, to try different A/C designs, to study how to move the cold air, how to preserve the cool during summer heat, to determine what life effects it would have, to measure the electricity used to cool the houses - A/C was a change that resulted in housing booms in hot climate. It made business in the South attractive.

The Air Conditioned Village was a joint project of the National Association of Homebuilders, and the University of Texas. It was similar to SEMATECH the semiconductor consortium that Admiral Inman initiated here in Austin in 1987, but without the government funding. Various potential competitors could work on common problems, to advance technology, avoiding concerns of improper collusion.

In 1950s major population centers were in the North. There, houses have basements because the foundation must be deep, below the freeze line. Furnaces were put in the basement, and in some of them ducts in the basement directed the hot air to the various rooms; some sent heat via steam pipes to the various rooms for radiators.

Also, in the North, attics are extra rooms, where odd stuff is stored. In the South, attics are ovens. In the South freezing ground isn't a problem, so houses have slab foundations or short piers. The AC Village would 'investigate' various ways to place equipment, investigate how to move heat, to determine what redesign would improve that. It was to show the practicality of air-conditioned living.

In 1950, air conditioners used ammonia as the chemical to move heat from the cooling evaporator to the condenser. Liquid ammonia expands and vaporizes as it is released into cooling coils. The heat of vaporization required to change from liquid stage to vapor is taken from the coils and the air that blows over them; they become cool. The ammonia, now a gas is sucked out to a compressor, where during compression, the same amount of heat is released to coils making them hot. When they are cooled, the ammonia becomes a liquid, repeating the cycle. Using ammonia, the coils at the compressor must give such a temperature change that a water cooling tower is needed.

One of the results of the AC Village was to redesign the air conditioners to use a different chemical, to replace ammonia. Some of the air conditioning manufacturers

looked for an 'inert' chemical with suitable heat of vaporization, and pressure state curves. They found what we call Freon. It was a laboratory curiosity first compounded in a lab by DuPont in the 1930s. The AC Village got some of it put into production to test as that replacement. The 'new' Freon was successful. If it leaked it wasn't corrosive and didn't injure people who were in the cloud. And, it didn't require a water-chilling tower to re-condense – a fan blowing outside temperature air across the coils could cool it for the next cycle. The house at 2502 Park View is one of those houses – Chrysler Air-Temp started making units using Freon.

The follow up to this redesign was further massive changes in society. The manufacturers made compact units with the coils on the two ends of a box – 'window' air conditioning units. Mount the box in a window, plug it in, and cool air comes out the grill inside the room, and hot air blows out the outside grill. This allowed AC to be added to existing multi-story buildings that didn't have space for adding ductwork – all the outside offices, those with windows, could be cooled.

Then, by about 1957 you got air conditioners in cars. If you already had a car you could get an add-on with the cool air grill sitting on the hump next to the gear shift.

Another big change that happened at the village was with thermal insulation. How to keep the cool-inside from being heated by the hot-outside. Through the 1940s the material used for thermal insulation was asbestos. It is a natural material that was mined, and then made into shaped ceramics, or into various 'wool' forms. The 'wool' was used for insulation of hot water heaters, for steam pipes, for furnaces, and was beginning to be used as roof insulation in houses.

In the 1930s the way to make glass fibers was developed. A jet of air is blown onto a pool of molten glass, and that will blow up a drop of glass; it is caught and the trailing thread is rolled onto a spindle. As it rolls up, long glass threads are made. During WW-II the glass threads were woven into strong fabric for various applications. The plastics needed to make things like molded boat hulls with the fiber cloth encapsulated for strength were not developed during the war. Small boats were plywood.

But, during the time of the AC Village, manufacturers substituted fiberglass for asbestos to make insulation for walls and ceilings. They insulated ducts carrying conditioned air to various rooms.

The changes triggered by the AC Village were not just physical engineering and architectural things; they were also policy and finance. The Austin A/C Village facilitated the adoption of residential air conditioning by proving that it could be installed and operated in well-built houses at a reasonable cost, which influenced the loan policies of the Federal Housing Administration (FHA), the Veterans Administration (VA), and other lending institutions. Officials from both FHA and VA

attended the 'opening' of the project. At the end of the project, you could get a subsidized loan on an air-conditioned house.

All the 'How-To' for domestic central air-conditioning was worked out in the different designs of The Air-Conditioned Village. The work confirmed that there would be a residential market, so technology was invented and improved. Freon became dominant, replacing ammonia. The 'experimental' houses became part of the neighborhood – families lived there and kept them.

That's what you're being asked to preserve. This house, its purpose, and its past are what you are asked preserve. The houses of the Village are Historical. The houses are icons of a past time. They are like cameras from 1860s, like working steam locomotives from 1880s, like preserved 1907 airplanes, like Edison recordings, like transistorized computers from late 1950s. Cameras, and locomotives, and airplanes, and recordings, and computers can be kept in museums. A village is its' own museum, if you preserve it.

Do your duty; protect this house. It is not like any 1860's camera, it is like Mathew Brady's camera that photographed the Civil War.

2502 Park View documents the changes that made the 'New South' possible, air conditioning and how to use it in residences.

Thank You –

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