

Ecology Housing — A rural development for people with severe MCS



Ecology Housing is located in a rural area outside Dallas, Texas. It was built in the 1980s to house patients with severe MCS who came to be treated by Dr. William Rea.

The owner originally lived by himself on a large piece of land. At Dr. Rea's suggestion, he let other people with MCS camp there with their own trailers.

Soon several old Airstream trailers were purchased and modified by the owner, to rent out to more people. Later, portable houses on skids were built and purchased. The camp has also been moved twice over the years. Eventually, more permanent structures were built.

In its heyday in the 1990s, the facility (called "the camp" by the residents) housed about two dozen people. As the trailers got moldy in the humid climate, they were sold off. A decade later, there were basically no trailers left and the camp was reduced to housing about fourteen people by 2000.

It now houses short-term residents, who stay for a few weeks or months while being treated by the environmental doctors in Dallas. There is also a sizeable community of long-term residents, who have stayed there for years. A few have lived there for over a decade.

Overview of the facility

The residents live in small huts on a campus of a couple acres, surrounded by a large buffer zone. The buffer zone consists of more than forty acres (16 hectares) of ponds and forest, which largely prevent fumes from drifting in from the surrounding neighbors.

Cars are not allowed on the campus, but are parked outside, about a hundred yards from the nearest building. A loading zone allows cars to offload groceries about forty yards from the nearest building. Some people use carts to transport their groceries.

Each resident has one small room with a private bathroom. The rooms are either freestanding huts, or part of a duplex. One permanent building has five of these units under one roof, each with direct access to the outside.

At the center of the campus is a large cook shack, which also houses the shared laundry.

Next to the cook shack is a small bathroom with a shower, for the use of guests and the rare camper.

Behind the cook shack is the water house, which is a sturdy concrete block structure with shelves storing five-gallon glass bottles of spring water that the residents drink.

The present owner lives on the premises in the same type of housing, but with a private kitchen and laundry. One long-term resident also has a private kitchen and laundry shed.

The shared cook shack

The residents cook their meals in the cook shack, not in their own rooms. This reduces the problems with cooking odors, and attracting insects and rodents. It also allows the rooms to be smaller and cheaper to build.

As most residents are on restricted diets due to food allergies, they rarely cook together but often eat together.

The cook shack serves as the social center of the small community, which is very important as people with severe environmental illness are generally excluded from socializing with the rest of society (due to regular people's use of toxic laundry and personal care products, cell phones, etc.).

The cook shack is about 40 ft by 20 ft (13m x 7m) and is divided into four rooms. The main room is the kitchen, which has three electric stoves, stainless steel counter tops, sinks and metal shelving. The furniture consists of steel patio tables and chairs.

The other side of the building has a room with six washing machines and six clothes dryers. Strict rules on laundry products make it possible for residents to share laundry machines and to have them this close to the kitchen and patio.

The building is very simple. The floor is raw concrete. The frame is lumber that was recycled from an old barn so the terps were already offgassed. The roof and outer walls are corrugated steel plates, while there are no inner walls (i.e. the studs and insulation are exposed). The insulation is Astro Foil that is stapled to the wooden rafters and studs. Astro Foil is “bubble wrap” encased in Mylar (“space blanket”), another brand is Reflectix.

Each resident has a large private shelf to store items on, as well as a private refrigerator in the adjacent room. Pots and pans are supplied by the camp, though many residents use their own.

Sharing the cooking facility has some drawbacks. People who live here often come because they have to, not out of a particular wish for communal living. Some people with environmental illness may have incompatible sensitivities. Some can't tolerate spices, essential oils, books, cell phones, etc., while others can. This poses many possibilities for conflict.

Right next to the kitchen is an open patio with large shade trees. The residents sit here and eat and chat a large part of the year. The patio is next to a pond that has a lot of wildlife.

The patio also has a simple outdoor kitchen, with a kitchen counter, sink and electrical outlet for a portable stove. This outdoor kitchen is used by residents who do not tolerate the indoor kitchen due to cooking odors, EMF or other reasons.

The living units



The camp has a variety of structures, which all are based on the porcelain-on-steel panels that were often used in MCS housing during the 1980s. These plates are expensive to buy and difficult to work with, as they must first be cut to the exact size and then shipped off to be covered with the ceramic coating. This process can only be done in specialized facilities and involves baking the plates in a large oven. These plates are rarely used today.

In most of the structures, these plates cover the walls, ceiling and floor, attached to the studs with screws. The seams are covered with metal strips or caulked, or both. In a few buildings, the floor is covered with ceramic tile instead.

The exterior doors are either all-steel (no insulation) or sliding-glass patio doors. There are no interior doors, only a privacy curtain to the bathroom.

Inside the walls are either wooden or steel studs. The insulation material is unknown, but probably fiberglass or mineral wool.

The outer skin of the walls is either steel siding, cement stucco, aluminum plates or the same porcelain-on-steel plates as inside. The roofs are usually corrugated steel.

Some structures were built from the ground up for MCS housing, while some were converted. A couple of all-aluminum mobile homes from the 1950s were totally gutted, by stripping them out to the bare aluminum outer walls and then rebuilding the insides.

An existing house on the property was similarly gutted to the stuccoed walls and rebuilt into a duplex.

Dr. Lattieri built three portable houses, which were delivered on skids. He has also built several porcelain travel trailers, many of which are still in use around the country. He is no longer building these structures.

Experiences with the designs

A variety of designs were tested during the construction of the camp. One of the buildings had two rooms with a shared bathroom in between. This was done to reduce cost. Experience showed that having two people with MCS share a bathroom caused a lot of problems with incompatible personal care products, etc.

Every unit does have its unique characteristic. Some people prefer one over the other, so it is good to offer a variety of materials used.

The porcelainized steel has proven to be very durable and well tolerated, but it is very expensive. There can also still be problems inside the wall with mold, insulation, etc.

A community building was built later on, but the residents preferred to hang around the cook shack and patio instead, so it became another residence.

The water system

The compound uses a shared well, located away from the campus. It has a large sand filter to remove sulphur from the water. The water is of good quality, though the residents drink bottled water which is delivered in 5-gallon (18 liter) glass bottles by a vendor on a regular schedule. The residents store these bottles in a shared water building, where each unit has a designated shelf.

Heating and Cooling

The climate sees summer days that are typically in the 90s (30+ degrees centigrade) and sunny winter days in the 40s and 50s (5 – 12° C).

Winter nights usually have light frost, with the temperature occasionally dropping below 25° (–4° C).

The cook shack and all rooms but one are heated using portable infrared quartz heaters. The infrared heaters work better than convection heaters since the walls tend to be cool in the winter, as there is little insulation. The heaters have an all-steel enclosure and have been in use for many years, so they are totally offgassed. The model used is no longer available.

In the summer, small room air conditioners are used in the individual units. The kitchen has two very large fans.

EMF issues

Many people with severe MCS also have electrical sensitivities (EHS) to varying degrees.

The camp was built before electrical sensitivities became a major issue. Dr. Rea provided advice in those days, and he much later commented to this author that they had just set the whole camp up, and then realized EMF was a major consideration.

However, the location and overall design of the camp is beneficial to people with EHS: It is in a country setting, somewhat outside the ever-increasing ambient radio-pollution from all sorts of transmitters found in town.

The camp also consists of many detached units, so it is less important that the neighbor may be using a cell phone or other electronic gadgets. In housing with shared walls, even televisions and computers can be a problem for the neighbor, both from the direct radiation through the wall and from the “dirty power” transmitted on the wiring.

One of the units has been retrofitted with a simple water-based heating system: an insulated pipe goes from an electrical heater in a nearby closet to two radiators in the unit. A small circulation pump moves the water around. It has no thermostat, just a 24-hour timer, as that was simpler and the system does not have enough capacity to overheat the room.

Otherwise, residents with EHS cope in various ways, such as being elsewhere on the campus while the heater, a fan or air conditioner is run in their room. Some residents leave the breakers to their room off all the time.

Some cook using portable electric hot plates in the outdoor kitchen.

One resident had a freestanding sleeping shed erected a bit away from the main campus, where she felt best electrically. A decade later, the author could verify with a sensitive gauss meter that the ambient radiation level is the lowest at that point.

This structure is still in use today, though the original owner moved out a decade ago.

The camp's wiring was not done with low-EMF in mind back then, and there are problems with stray currents etc. However, a retrofit is simply too costly. The author's measurements show that the ambient levels there are no higher than those typically found in a city or suburbia, though that may not be low enough for very sensitive people.

EHS has become more accepted by people who "only" have MCS these days, and it is now easier to convince them to use their electronic gadgets away from others. However, it is always a dicey proposition to have to rely on people's kindness.

Policies and procedures

New renters are issued cotton blankets and a stack of cotton mattress pads to sleep on. The beds are steel hospital beds with no mattress. The mattress is replaced by the stack of mattress pads, which are washed when the renter moves out. Some of the renters sweat out a lot of chemicals, especially during the hot summer. This has contaminated so many mattresses so they could not be used any longer. New mattresses also take a very long time to make tolerable, as they cannot be washed.

The renters are responsible for washing their own bedding during their stay, but they are not asked to return their bedding freshly laundered.

When a person moves out, the floor, walls and ceiling of their unit is washed with AFM Superclean. The offgassing of chemicals from some people's bodies simply leaves a residue, even on the porcelain walls (this place sees the sickest and most toxically loaded people). This author has personally experienced how toxic a room was when a person moved out, and how non-toxic it became after being washed down.

Because of the labor-intensive procedures, the minimum stay is one week. The place offers weekly and monthly rates, with no deposit.

The electricity is included in the rent. With no individual metering of the electricity, there have been many cases of abuse (mainly overuse of laundry machines, air conditioning and space heaters).

See also “Photo Tour of Ecology Housing” for many more pictures.

The author is an engineer, who lived in the camp for over two years. He now lives in Arizona.