

Converting an apartment building to rent to people disabled by environmental illness



Finding and converting an apartment building to rent out to people with chemical or electrical sensitivities is not easy, but has been done successfully.

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Building new versus converting existing

There are pros and cons to both building a new building and to converting an existing one.

Designing and building from the ground up to house people with environmental sensitivities tends to produce the best results — both in the short term and long term. They can be made more comfortable in many ways and the highly sensitive people feel better in them since the materials are fundamentally healthier.

Converting an existing building can be more manageable than new construction. A single handy person can start converting the apartments piecemeal and rent them out as they become tolerable. Initially the clientele will be the lesser sensitive, with more sensitive people moving in as the apartments improve over time.

The picture on the first page shows the Meadow apartments in Dallas, Texas. They were owned by Dr. William Rea until the whole complex was torn down, about 2005.

Why convert a whole building?

People who rent individual apartments have few options available to improve their indoor air quality. Most effective methods would require the permission of the landlord and the investment will be lost when the renter moves out.

It is also difficult for sensitive people to live next door to regular folks. The walls are rarely air tight so the neighbor's fragrances, tobacco smoke, laundry products and pesticides often pass through the walls. The outdoor air is also affected through dryer exhaust, barbecue fumes, etc., preventing the sensitive person from using a balcony or other outdoor space, and making ventilation difficult.

People with environmental sensitivities are often socially isolated because they cannot visit regular homes or be visited by regular people. Placing multiple people with similar sensitivities next door to each other encourages socialization and mutual support.

Location

A good location is all-important for a successful project. There are many more things to consider than a regular buyer would need to. This large topic is covered in a separate article available at:
www.eiwellspring.org/multiunit/MultiunitLocation.htm.

Finding a suitable building

People have converted motels and apartment buildings, sometimes even apartments that were inside a large compound with regular renters.

Building features to look for:

- front doors open directly to outdoors

- concrete floor/subfloor (support for heavy flooring)
- low-maintenance exterior (no paint ever needed)
- building at least ten years old
- separate laundry or hookups in each apartment
- individual heating and cooling
- bathroom with operable window
- landline telephone and internet service
- kitchen suitable for cooking from scratch
- low odors inside most apartments
- wheelchair access
- outdoor parking
- electrical meters clustered, preferably on utility room



Outdoor stairs and walkways protect the residents from toxic scent-trails left by visitors, delivery people, maintenance, etc. This picture is of the Raintree apartments in Dallas, Texas.

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Building features to avoid:

- walls, ceilings or floors shared with non-EI apartments
- enclosed stairs or hallways shared by apartments
- deep basement (mold)
- swimming pool
- enclosed parking (carports are fine)
- solar power system
- chemically intensive landscaping
- building that smells moldy or has visible water damage
- any gas line entering building
- any gas appliances (gas boiler in separate utility room may be okay)
- flat roof (unless solid concrete)
- major fragrance smell (perhaps to mask mustiness)

Termite protection

In areas with termites, consider how easy a target the building is. If it is a wood-framed building, the studs should not be closer than six inches (15 cm) from any soil. This distance should preferably be a concrete foundation where termite activity can be seen easily.

Ask the seller if the building has ever been sprayed for termites, and especially if it was “tented.”

Building inspection

Make sure to get an experienced building inspector to go over the building. You should also get a special mold specialist to check the place, as a building inspector may not be as concerned about mold.

If you are in a termite area, specifically ask the inspector how “termite proof” the building is by design, i.e. without having to use chemicals.

Make sure the inspector looks closely at all the mold-prone areas, such as air ducts, air conditioners, basements, etc.

Separation from regular people

The greater disability society often suggests that disabled people should be integrated with the rest of society and not live in separate ghettos. However, integration does not work for people with environmental sensitivities.

Mixing with regular people has been done in some conversion projects, but it did not work well. The sensitive people were always the losers. They have been restricted by their neighbors' use of barbecues, bug sprays, cigarettes, toxic laundry products, etc., which prevented them from enjoying their balconies and other outdoor spaces. Opening windows for "fresh" air became hazardous. Sometimes these fumes even provide a barrier for people leaving their homes to go elsewhere.

Management space

In some projects one of the apartments was used as the rental office. In others, the manager lived in one of the apartments and used it as an office as well. Small projects (such as six apartments) may not need any on-site management.

Laundry

People with MCS cannot share laundry facilities with regular people. Common laundry products will contaminate the washers and dryers, which will then contaminate the clothes washed by someone with MCS. It doesn't work.

The regular laundry products may prevent someone with MCS from even entering the laundry room. It is not feasible to have special "MCS only" washers and dryers in a laundry facility used by regular people, even if the dedicated machines are locked.

If the converted building does not come with its own laundry room then each apartment should have a private washer/dryer, or one apartment could be converted to be a shared laundromat (and also serve as office, storage, community room, exercise room, etc.).

Mobility features

People in wheelchairs or who use canes or walkers will need to be able to live there, too. Consider making the lower-level apartments mobility-friendly by installing wheelchair ramps, flat thresholds and grab bars. This is easiest to do as part of the general renovations.

Nursing homes and assisted-living facilities do not accommodate people with environmental sensitivities.

Lighting

Many sensitive people are bothered by fluorescent lighting and LED lights. It appears to be the quality of the light itself, besides the radiation from the built-in

electronics. Make sure all fixtures can be outfitted with regular incandescent light bulbs.

Transitioning

The building may already have tenants in it. Their leases will need to be terminated, which may be possible to do all together. Then all apartments can start offgassing right away.

Another option is to stagger the exit of the old renters over six to twelve months. This will provide some income during the transition period.

The initial MCS renters will likely be the less severe cases, since it will take time for the apartments to offgas. Even with less-toxic modifications there will be a need for an offgassing period. It may take a year before an apartment becomes occupied. Make sure to have financing that can cover the initial period of low occupancy.

Do not let regular people rent a modified apartment while it offgasses. Regardless of any promises they may make, they will not refrain from using toxic products — most regular people simply will not be able to understand what is needed, and many will resent having such restrictions.

Contamination issues

The level of contamination will vary between the apartments, but they will all be contaminated. The typical contaminations are fragrances, laundry products, cigarette smoke and pesticides.

The United States Environmental Protection Agency did a Healthy Homes Survey in 2005-2006, where they tested the floors of 500 homes for pesticide residue. They found pesticides in more than 90% of the homes. The percentage is likely higher for apartments, as they are usually all sprayed if bugs are found in just one of the apartments.

Pesticide use varies dramatically from country to country. Countries in hot climates will have more problems. It is also a cultural issue whether people use pesticides or not.

Ask the seller about how often they applied pesticides to the apartments. Besides that, the renters may also have done it individually.

The bathrooms are likely to be the most contaminated area, since many people keep fragrances in there to put on themselves and to counteract offensive natural odors. The bathroom cabinets are likely to be particularly contaminated.

Cabinets and shelves used to store laundry products are often heavily contaminated, due to small spills.



The Regis Caelis apartments in Dallas, Texas

Converting the apartments

The five basic methods are:

- removing
- replacing
- scrubbing
- encapsulating
- offgassing

Removing offensive materials is the most effective method, while offgassing is the least effective.

It is a must to remove the carpet as it acts as a sponge for pesticides, fragrances, dust, pollen and mold. These come from the apartment itself and are also tracked in on people's shoes. It is impossible to fully clean a carpet, even with the most powerful van-mounted equipment. The carpet should be replaced with a harder surface of inert material. The gold standard is tile, but that is costly. In one budget project (Raintree in Dallas) they used the concrete subfloor as the surface people walked on.

Sometimes contaminated cabinets have to be replaced. An attractive low-cost alternative is wire shelving of steel. Sometimes drywall is also replaced, though new drywall is not inert. Toxic drywall can be encapsulated by covering it with foil, a sealer or wall tiles. Be aware that foil is also a vapor barrier; ask local building professionals if that is okay to use on exterior walls in the local climate. Ceramic wall tiles can be used in any climate and are available in pleasant colors, but tiling a wall is costly.

Avoid any type of laminated or manufactured wood products, such as particle board, plywood, OSB, laminated hardwood flooring, etc.

The walls, ceilings and floors should be given a thorough scrubbing to remove contaminants adhering to the surface. Scrubbing cannot remove contaminants that have been absorbed into the materials.

Any conversion project will include vigorous airing out with open windows and usually also fans to move the air around and out. This can help over time, but won't fix major problems. It will not work to use air cleaners, they can just help a little at the end.

Be aware that many building products that are marketed as "ecological," "recycled," "sustainable," "low VOC" or "no VOC" are not suitable for people with MCS. Recycled materials often contain mold spores and other contaminants. The choice of material is of major importance and should not be done hastily.

Paint is a particularly difficult choice as there is no single paint that is tolerable to everybody. An option is to use different paints in different apartments, or simply keep the existing paint. A more expensive option is to cover the walls with tile.

This article gives just a brief overview of what it takes to turn the apartments into healthy living spaces. For more details, see the articles and case stories available on this website through the link at the end of this article.

Exterior

The renters will not be able to tolerate major painting of the exterior while they live there. If the building is clad with wood panels or boards, consider replacing them with vinyl or metal siding during the conversion. Dr. Rea's Meadow apartments (pictured on page 1) had boards on the exterior. When they had to be painted, they were removed and painted in a parking lot a hundred yards away. Then, some days later, they were reinstalled.

Tar shingles are toxic for a long time. Consider installing a steel or tile roof during the initial renovation or later on. Do not wait too long to replace an old roof, as it is best if the old plywood sub-roof can be left in place and just be covered with steel panels.

Metal siding and roofing reflects radio frequency radiation. This helps shield the building from outdoor transmitters, but if the occupants use wireless devices themselves it will raise their exposure — and the exposure of their neighbors, as wood and drywall let radio waves pass through unhindered.

Communication

Make sure there are telephone outlets and wired Internet service in the apartments. Wireless services should be minimized. If there is no cable-borne provider available, consider installing “fixed wireless” service that provides cabled services inside the building and uses wireless to communicate to the outside (preferably using a dish antenna).

Landscaping

Make sure to have landscaping that does not require the use of chemicals. This can be a problem in upscale American neighborhoods where the neighbors expect the perfect “golf course look.”

There are many options, depending on the local climate. A simple lawn that is mowed regularly should work well, though the residents would need to be warned before the mowing starts so they can close their windows, as many are allergic to the terpenes from fresh cut grass.

If the project is just one building in a larger complex, a compromise can be to leave the adjacent lawns natural, while the other lawns are still sprayed regularly. But try to arrange so the sensitive renters will be warned at least a day in advance when the spray truck is coming.

Furnishing

Consider whether the apartments should be furnished or not. Some projects provide basic furniture in the form of a dining table, a bed and a few chairs. Patio furniture of glass and steel is usually a good choice. A basic steel bed, such as the traditional non-electric hospital bed, is used in some cases. If a bed is provided, it should also have a mattress. Some projects provide a stack of cotton mattress pads instead of a mattress, as they can be washed and may be cheaper as well.

Shared utilities

If catering to short-term renters, the utilities should be included. For long-term renters it is better to not share the utilities.

When utilities are shared, people waste a lot more, raising the cost for everybody. This is a well-documented effect in the general population. It appears to be even more so for the MCS population, where it is not unusual to run heat or air conditioning while keeping the windows open if the electricity is “free.”

Financing

Two basic methods have been used in various projects:

- Buy the apartments
- Special long-term lease agreement

We are aware of two projects where the apartments were not purchased, but a long-term lease agreement was made with the owner to allow the conversions. In both cases the converted apartments were separately managed and rented out at a higher cost to the MCS renters.

In one case, the owner (a hotel chain) eventually decided it was more profitable to rent out the apartments themselves. They did not renew the contract and turned the apartments into hotel suites. The MCS renters had to leave.

In another case a medical clinic gradually bought up apartments in a complex and converted them one by one.

Healthy apartments command a premium price since they are in short supply and the people needing them can be quite desperate. It is also difficult to find financing for this type of project, due to the special risks and costs.

It may be necessary to use untraditional financing, such as co-operative ownership, government programs and charitable foundations. A project in Zurich, Switzerland used all three types of financing. It can take years to organize such financing.

It is unlikely that the apartments can be rented out right away. There will be an offgassing period that can be as little as three months or may be a year or more in some cases. The financing must be able to cover the project through this period. An option is to stagger the exit of the existing renters to provide income during the first year or so.

A special risk is that one or more of the apartments do not convert well. It may take years for them to be rentable, and they may never be great. Such apartments may be rented out to people who are desperate and hope one of the better apartments become available soon. A strategy could be to give existing renters first choice for any apartment that becomes available.

Most people with severe environmental illness are unable to work. They live on a reduced income that does not allow them to pay the premium rents. There is an urgent need for affordable housing for these people, perhaps with some sort of government or charitable assistance to cover the initial cost of the project.

We are aware of two subsidized projects in the United States, one in Canada and one in Switzerland. Some of them are discussed elsewhere on this website (see link below).

More information

This website has several articles and case stories available at www.eiwellspring.org/multiunit.html.

We also have articles about healthy housing methods at www.eiwellspring.org/saferhousing.html.

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