

## Health, Safety, Environmental Issues and ADA Compliance / Subject Area #8

### Indoor Air Quality

Indoor Air Quality refers to the air quality within and around our homes and buildings and is essential to our health and comfort. Understanding and controlling common indoor pollutants can help reduce health risk concerns.

The primary cause of indoor air quality issues are sources that release gases or particles into the air. Whether in a home or a public space, these pollutants are a health concern. Inadequate ventilation increases indoor air pollutants because it does not bring in enough outdoor air to dilute emissions, and by not carrying indoor air pollutants *out* of the area. Coupled with high temperature and humidity levels also increases concentrations of certain pollutants.

### Immediate Effects

While some health issues may show up shortly after a single exposure, others may take longer, even years to become known. Exposure to certain pollutants may include irritation of the eyes, nose, and throat, headaches, dizziness, and fatigue. Typically, these are short-term and easily managed. In some cases, when an air pollutant is identified, simply eliminating exposure to the source of the pollution eliminates the symptoms. Exposure to some indoor air pollutants may trigger symptoms of respiratory diseases, such as asthma, which may show up, be aggravated, or worsened. Age and preexisting medical conditions may trigger immediate reactions to indoor air pollutants.

### Long-Term Effects

Health issues such as respiratory diseases, heart disease, and cancer may show up years after exposure has occurred, or only after long or repeated periods of exposure. These health issues can be severely debilitating and, in some cases, fatal.

While pollutants commonly found in indoor air can cause many harmful effects, there is considerable uncertainty about what concentrations or periods of exposure are necessary to produce specific health problems. People also react very differently to exposure to indoor air pollutants.

## Pollutant Sources

While there are many sources of indoor air pollution, the relative importance of any single source depends on how much of a given pollutant it emits and how hazardous those emissions are. In some cases, factors such as how old the source is and whether it is properly maintained are significant. For example, an improperly adjusted gas stove can emit significantly more carbon monoxide than one that is properly adjusted.

Some sources, such as building materials, furnishings, and air masking products can release pollutants almost continuously. Other sources that are related to activities like smoking, cleaning, or certain hobbies that require the use of glues and paints release pollutants intermittently. Unvented or malfunctioning appliances or improperly used products can release higher and sometimes dangerous levels of pollutants indoors, which can remain for long periods of time.

## Where to find Indoor Air Pollution

- **Living/Family Room, Den** A living room or family is usually a well-used area of a home which can harbor indoor pollutants.
  - **Pet Dander and Hair**
    - Pets can trigger allergy and asthma attacks due to dander and hair. Keep them out of the sleeping areas, and away from upholstered furniture, carpets, and stuffed toys. Vacuum and clean carpets, rugs and furniture often.
  - **Secondhand Smoke**
    - Secondhand smoke from cigarettes, cigars and other tobacco products can trigger asthma and other respiratory illnesses especially in children and the elderly. To help protect from secondhand smoke, do not smoke or allow others to smoke inside a home or other building.
  - **Carbon Monoxide**
    - Fireplaces and leaking chimneys are sources of carbon monoxide. Ventilate rooms that have fireplaces, make certain the flue damper is operational and fully open when in use, and ensure the chimney is properly sealed. Regular chimney inspections are crucial.
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- **Bathroom** A bathroom is often the dampest area of a home. It is important to ventilate a bathroom during use and dry damp surfaces.
  - **Mold**
    - Bathrooms are a common source of mold. Humidity from showers can cause moisture problems, which will lead to mold growth. Mold can cause allergic reactions, asthma, and other respiratory ailments. Installing and using a ventilation fan will help to control moisture and inhibit mold growth.
- **Bedroom** A bedroom often contains materials that collect dust. It is important to clean bedding and other fabrics, and vacuum regularly.
  - **Dust**
    - Dust mites can trigger allergy and asthma attacks. Dust mites are everywhere especially on pillows, blankets, carpets, upholstered furniture and stuffed toys. Dust and vacuum your home regularly, wash bedding, and use allergen-proof mattress and pillow covers.
- **Kitchen** A kitchen has appliances that may leak gases, and often contain chemicals for cleaning or removing pests. It is important to properly maintain and ventilate appliances, and safely store chemicals.
  - **Pesticides**
    - Pesticides used to rid homes of rodents, termites, insects, and other pests, can irritate the eyes, nose, and throat; damage the central nervous system and kidneys; and increase the risk of cancer. Don't leave food out, and if you must use pesticides, ventilate during and after use and follow directions to limit exposure. Use non-chemical methods of pest control when possible.
  - **Volatile Organic Compounds (VOCs)**
    - Common household cleaners, often placed under the kitchen sink, release Volatile Organic Compounds (VOCs), when used and stored. Store household products that contain chemicals according to manufacturers' instructions and keep all products away from children. Consider purchasing cleaners without VOCs.
  - **Carbon Monoxide**
    - To help prevent carbon monoxide exposure, make sure appliances such as gas stoves vent to the outside whenever possible and that all appliances are properly installed, used and maintained.
- **Basement** Basements can be damp which make them a source of air leaks and moisture, and often contains various chemicals. It is important to ventilate, seal cracks and properly store all chemicals.

- **Carbon Monoxide**
  - Combustion heating and cooling appliances such as heating, ventilation, and air conditioning units, gasoline-powered heaters, and other appliances are sources of carbon monoxide. Proper installation, use and maintenance of fuel-burning appliances are critical for safety. Carbon monoxide detectors in living spaces are required.
  
- **Radon**

Radon is a naturally occurring radioactive gas that can enter a home through cracks and openings in floors and walls that are in contact with the ground. It is the leading cause of lung cancer among non-smokers in the U.S. Radon testing should always be recommended. It is the only way to know if radon is present in a home. If a property tests for dangerous levels of radon, a qualified radon service professional can install a radon mitigation system. For newly constructed properties, radon-resistant new construction (RRNC) draws radon from the soil and vents it through a pipe to the roof, preventing its entry into the house. This technique uses common materials and building skills. RRNC costs less than retrofitting a similar radon reduction system after the house is finished. New home buyers should ask their build to include RRNC features.

## **Disclosures**

### **Lead Based Paint**

Approximately ¾ of the nation's housing built prior to 1978 contains lead-based paint (LBP). When properly managed and maintained, LBP poses little risk. However, if allowed to deteriorate, lead from paint can threaten the health of occupants, especially children under six years old.

- The EPA pamphlet *Protect Your Family From Lead in Your Home* provides important information for families and homeowners to help them identify when lead-based paint is likely to be a hazard and how to get their home checked. This pamphlet should be provided to any purchaser of a residential property that was built prior to 1978.
- Licensee/Seller Disclosure of information must be made on all properties built prior to 1978. This information discloses or acknowledges whether the seller is aware of LBP, and if any reports exist. It provides prospective buyers with the opportunity to conduct a risk assessment of inspection or waive such inspection.

### **Illegal Drug Labs**

A drug lab is an illicit operation that contain apparatus and chemicals needed to produce powerful stimulants such as methamphetamine and fentanyl. These laboratories vary dramatically in size and output and are commonly found in residential areas, in homes and garages or shops.

- Methamphetamine (meth) is a highly addictive drug of abuse that can easily be made in small illegal laboratories from household chemicals that are highly toxic and dangerous. Meth labs have been found in locations such as homes,

outbuildings, motels, and cars. Its production endangers the “cook,” neighbors, responders, and the environment.

- Pharmaceutical fentanyl is a synthetic opioid approved for treating severe pain and is 50 to 100 times more potent than morphine. Recent cases of fentanyl-related harm, overdose, and death in the U.S. are linked to illegally made fentanyl which is sold through illegal drug markets for its heroin-like effect. It is often mixed with heroin and/or cocaine as a combination product—with or without the user’s knowledge—to increase its euphoric effects.
- If you suspect that a property is operating as a methamphetamine laboratory, report your concerns to the local police department or sheriff's office immediately. For your own safety, do not investigate the suspected laboratory or confront the occupants. In addition to the hazards of exposure, many laboratories are equipped with security devices or booby traps that could cause serious injuries or death to you or prospective buyers.

### **ADA Compliance**

The Americans with Disabilities Act (ADA) is a federal civil rights law that prohibits discrimination against people with disabilities in everyday activities. The ADA prohibits discrimination on the basis of disability just as other civil rights laws prohibit discrimination on the basis of race, color, sex, national origin, age, and religion. The ADA guarantees that people with disabilities have the same opportunities as everyone else to enjoy employment opportunities, purchase goods and services, and participate in state and local government programs.

A person with a disability is someone who:

- has a physical or mental impairment that substantially limits one or more major life activities,
- has a history or record of such an impairment (such as cancer that is in remission), or
- is perceived by others as having such an impairment (such as a person who has scars from a severe burn).

Although the ADA applies to many areas of life, it does not cover everything. In some situations, disability discrimination is prohibited by laws other than the ADA.

While the ADA applies to certain types of housing (e.g., housing at private and public universities and public housing programs), the Fair Housing Act applies to many types of housing, both public and privately owned, including housing covered by the ADA. Complaints about disability discrimination under the Fair Housing Act should be filed with HUD.

### **Land Use, Planning, Zoning and Building Codes / Subject Area #14**

Building codes and land use are enacted by the state and municipal government to protect the health, safety, and general welfare of the public. Building codes set minimum acceptable

standards that include plumbing, electrical, heating, ventilation, etc. Local building inspectors are the primary enforcers of compliance with code standards. Other government entities may also have jurisdiction, such as the fire department, or health department.

In most municipalities a permit is required prior to the start of any construction within the boundary of the municipality. The permit is an official approval to construct a new building or expand or remodel an existing one. Its purpose is to ensure that the construction project follows all relevant regulations, including building standards, land use, and environmental protection.

Once construction is completed, a certificate of occupancy must be obtained by the property owner/builder prior to the structure being occupied. The COO is issued by the municipality.

Alaska's building codes are designed to withstand the unique challenges of climate, energy efficiency, and safety. Extreme cold, seismic activity, and snow loads are important considerations to ensure that structures are resilient in the face of harsh environmental conditions.

While Alaska does not have a mandatory state-wide building code, Alaska Statute does require that to be eligible for **Alaska Housing Financing**, residential housing constructed on or after July 1, 1992, must meet the Alaska Minimum Construction Standards. The home must be inspected and meet appropriate building codes and construction techniques as defined in Alaska Housing Construction Inspection Guidelines. Basic guidelines include:

- Authorized Inspector
  - An individual who is registered under AS 08.18 to perform home inspections for new construction.
  - An architect licensed under AS 08.48, an engineer licensed under AS 08.48, or such other person acceptable to AHFC who has received prior approval in writing from AHFC.
  - An inspector from any governmental agency outside the State of Alaska, whose function is the inspection of prefabricated/modular units which may be transported to the State of Alaska, and who inspects prefabricated units for compliance with the AHFC construction standards. This inspector may not be an employee of the manufacturer.
- Required Inspections – PUR-102
  - A minimum of five (5) inspections is required; more may be necessary, depending on the construction methods used. An authorized inspector performs each inspection and completes AHFC Form PUR-102, Summary of Building Inspections.
    - Plan Approval
    - Footings & Foundation
    - Rough-In Inspections (Framing, Electrical, Plumbing & Mechanical)
    - Insulation & Vapor Barrier
    - Approval

- Conditional – when unfinished items cannot be completed safely due to weather or other delays beyond the builder’s control.
  - Final Approval – the residential unit is 100% complete.
- Building Energy Efficiency Standard (BEES) Compliance – PUR-101
  - Energy Rating Verified Measures 1. R405.3 Performance-based compliance; At least an AkWarm rating of 89 (Five-Star) or equivalent to qualify.
  - Requires a blower-door testing protocol.
    - Proper ventilation and airtightness
    - Combustion safety
    - Heating & Cooling

### **Prefabricated/Modular Homes**

Prefabricated/modular homes are constructed in a factory under “ideal” conditions, structurally engineered to be built in sections or modules, which can be transported to the site. During construction modular units must be inspected by the appropriate governmental entity in the state or country in which the unit is manufactured, or by an authorized inspector. The purpose of the inspection is to provide oversight and to ensure compliance with current adopted building codes. An authorized inspector may perform all the inspections listed on the applicable Form PUR-102, or in some cases, do so in combination with a governmental entity who certifies compliance with framing, electrical, plumbing, mechanical, insulation, and vapor barrier.

### **Manufactured Homes**

Manufactured homes placed on permanent foundations must comply with all the requirements of Housing and Urban Development (HUD) Regulations 24 CFR Parts 3280 and 3282 for the specific area of Alaska in which the unit is being placed.

An authorized inspector must approve the foundation plans and inspect the footings and foundation. The inspector must be on site to certify that multi-section units are joined according to manufacturer instructions, the vapor retarder has been properly sealed, and all service connections are properly secured and operational.

Once the manufactured home has been placed on its foundation, the authorized inspector performs the final inspection to ensure the unit is properly secured, tied down and the HUD seal/insignia is in place.

Municipalities must submit documentation for inspection approval. They must adopt and enforce codes that meet or exceed the state building code for residential housing. AHFC reviews the applications annually to determine which municipalities comply with the inspection procedures mandated by AS 18.56.300 and prepares a list for public use. The List of Approved Municipalities have building codes and enforcement procedures that meet or exceed the state building code for residential housing. An approved municipality issues a “Certificate of Occupancy” or “CO” as evidence of compliance. A list of the approved municipalities can be found on the AHFC website.

### **Destructive Inspection**

In accordance with Alaska Statute (AS) 18.56.300, if residential housing constructed on or after July 1, 1992, did not undergo an approved inspection process to be eligible for AHFC financing, completion of a “destructive inspection” by an authorized inspector and an engineer *may* satisfy this requirement when accompanied by a signed and notarized Destructive Inspection Certification. This process is somewhat invasive and includes cutting holes in drywall throughout the structure to confirm building standards were met.

## **Land Use**

When Alaska acquired statehood in 1959, the Alaska Legislature tasked the Department of Natural Resources (DNR) with the compound job of managing the state-owned lands for the maximum benefit to the public. With over 100 million acres, this is not an easy task. Planning is a way of considering all the possibilities for using state land and choosing those with the greatest benefits for all Alaskans. The planning process provides a nexus between the citizens and the agencies charged with managing their land. AS 38.04.065 requires that state land be classified through a planning process prior to a sale or lease (excluding oil and gas lease sales and staking of mining claims).

Developing plans for state land is not easy because people have differing ideas of how state land can best be used. Also, not all desired uses of state land can occur compatibly in the same place at the same time. Through resource planning, DNR works with the public to determine where the important resources are and how the land can be used for the maximum public benefit. In the planning process all resources are considered and evaluated. Wherever possible, guidelines are established that allow for multiple use. Where irreconcilable conflicts exist, alternatives are developed and evaluated.

## **Resources**

Understanding where to find the information you need to help your clients make informed decisions is a crucial aspect of your responsibility as a real estate professional. There is a myriad of online resources whether you are looking for State information or localized plans. Make sure the information is from reliable sources. Nearly any government information on land use and planning can be found at no charge from the appropriate agency. Here are a few key sites:

- Municipality of Anchorage - <https://www.muni.org/pages/default.aspx>
- Matanuska Susitna Borough – <https://www.muni.org/pages/default.aspx>
- Kenai Peninsula Borough - <https://www.kpb.us/>
- Fairbanks North Star Borough - <https://www.fnsb.gov/>

## **RSA & FSA**

Other important information for potential buyers is whether a property is located in an RSA (Road Service Area) and FSA (Fire Service Area). This information is also easily found on government sites.



## Land Use Commonly Used Terms

Real estate jargon can add layers of confusion to an already complex process. Understanding the vocabulary is essential for real estate professionals. Don't use terms unless you fully understand their meaning and are able to explain it to a layperson.

CCRs – Covenants, conditions & restrictions are private controls that are placed on property by voluntary agreement. They are enforced by those who are subject to them.

Zoning – a public control or restriction that is enforceable under police power.

Zoning Variance – a permanent exception to zoning.

Setback - the minimum distance required by zoning to be maintained between two structures or between a structure and a property line.

Encroachment – A trespass by placing a permanent improvement on or over a property line, or in a setback.

Conditional Use Permit (CUP) - a discretionary permit that may be issued by a hearing body. It would allow a *conditional* use that may or may not be allowable under the zoning code. CUPs require a public hearing and, if approval is granted, are usually subject to the fulfillment of certain conditions by the developer. Approval of a CUP is not a change in zoning.

Easement - the right to use property owned by another for specific purposes or to gain access to another property. For example, utility companies often have easements on the private property of individuals to be able to install and maintain utility facilities.

Site Plan – a plan drawn to scale that shows the uses and structures proposed for a parcel of land. It includes lot lines, streets, building sites, public open space, buildings, major landscape features, and locations of proposed utility services.

Plat - a drawing of a lot, parcel, subdivision, or development area where the lines of each land division are shown by accurate distances and bearings.