

CERF+ Studio Inspection Safety Checklist

Whether you're looking for a new studio or want to improve your current one, use this checklist to help ensure that you are aware of potential risks that can impact you, your artwork and your career.

Studio Location and Legalities:

Weather Related Issues

- Is the studio in a flood zone?
- Is the studio at risk of direct high wind damage?
- Is the studio in an area of high wildfire activity?

Site Related Issues

- If the studio is on or below a slope, is erosion or landslide activity a concern?
- Are overhanging trees a concern to the structure, power, or access?
- Does vehicular traffic pose a threat, whether to access or to the structure itself?
- Are there non-flood zone water damage risks in or near the structure? For instance, artist studios have been flooded due to a water line under the cement studio floor that burst, a defective culvert under a nearby road that malfunctioned during a severe storm, and even a frozen toilet in a vacant space on the floor above a studio.
- Is the area high in criminal activity, whether in terms of theft, property damage, or personal safety?
 - Does the building have an alarm system? The more crime in the area and the more valuable your artwork and materials, the more important it is for your studio to have an alarm system.
 - Is there lighting at the entry, in the parking lot and in between?
 - You may want to establish a practice of phoning a third party as you enter and leave.
- Is the studio part of a larger building shared with other activities, or in very close proximity to one? If so, do any of those activities pose a possible threat? Consider inspecting the premises of the other occupants – you may have safe studio practices, but that will not protect against those who do not.

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Regulatory Issues

- Before taking on a space, check to see if there are building code restrictions that could affect your studio – whether some of your practices are allowed, and, if so, would expensive renovations be required?
- Before any agreements are made or building/renovation is done, confirm that a studio practice is allowed at all.

Other Issues

- Tenancy/Shared Space: If the space is rented and/or shared by multiple artists, are there proper contracts offered and in place (not only between tenant and owner, but also between artists within the studio) that lay out clear expectations of all parties and specific terms for responsibilities, grievances, and termination?

Studio Structure:

A structural engineer or inspector is essential to best address these, but be on the lookout for obvious signs of damage in existing buildings.

- If foundations are exposed, do they appear sound and not undercut by erosion?
- Are loadbearing walls and columns intact and undamaged?
- Are there signs of water damage from roof leaks and other sources (they may be cosmetic, or structurally damaging)?
- Are there signs of structural damage from insects, such as powderpost beetles or termites?
- Is there danger of ice building up/melting, especially around entry/exit areas?
- Is there visible mold growth, or places where mold might be hidden?
 - In basements (especially behind any paneling against the basement wall) if exterior drainage is poor and/or the basement's relative humidity is higher than 60%.
 - Near leaky plumbing or pipes/fixtures with condensation (especially in an enclosed space).
 - In walls, ceilings or attics due to roof or other leaks.

Egress:

A local fire marshal will ultimately decide on code interpretations, and it can be beneficial to have one make an invited visit upfront, rather than a surprise one later.

- Establish one or more means of egress and ensure that doors, windows, and stairwells are properly sized and located – building codes may require more than one.
- Ensure on a continual basis that the means of egress is a 36" pathway clear of obstructions.
- Are stairs and fire escapes, including the railings, structurally sound, functional, and clear?
- Particularly if your studio will host visitors – whether customers, or friends and coworkers - establish and post an egress plan showing all viable exits.

Fire and CO₂:

As with egress issues, a visit by the local fire marshal can be beneficial to this part of the inspection.

- Smoke Detection: Install smoke detectors in appropriate locations.
- CO₂ Detection: If you use equipment that utilizes combustion, or the studio HVAC does so (whether via a furnace, direct heater, or a space heater), install a CO₂ detector.
- Alarm Detection Protocols: If a smoke and/or CO₂ detectors are used but not hard-wired, set up procedures to routinely test them and to ensure that batteries are functional – a good system is to change batteries out for fresh ones during daylight-savings time changes (if applicable), or set a smartphone calendar alarm to remind you twice each year.
- Fire Extinguishers: Simply, have them. They should be located around the studio, easily visible, and clear of obstructions, and, if recharging is required, you should set up a maintenance schedule.
- Sprinklers: If you are in a sprinklered space, make sure they are functional. On the flipside, make sure you do not place heat-generating equipment in close proximity to them – a falsely-engaged sprinkler can cause significant damage property.

Safety Equipment:

An industrial hygienist would be the likely expert to consult on these issues if more information is needed, but other artists (especially those with regular studio employees) and art department personnel at local colleges can be good sources as well. Also, check the Studio Safety Resources tab on this webpage.

Safety Equipment and Supplies

- Place and routinely stock a kit or kits appropriate to the studio activities.
- Place an eyewash station in an area not prone to damage.
- If chemicals are used at a large scale, even if infrequently, consider installing a shower.

Personal Safety Equipment

- Have multiple glasses, goggles, and/or face shields in studios where eye injuries might occur.
- Have multiple earplugs and/or earmuffs in studios where noises exceed 85db.
- Have appropriate gloves in the studio for processes that require hand protection.
- If there is airborne particulate, install filtration and use dust masks.
- Use a tightly-fitting NIOSH-approved respirator when using any dangerous chemicals (consult a doctor first – for some, this may restrict breathing).

Studio Equipment

- Is equipment located in such a way as to minimize the dangers of fire hazard, water electrocution, and flying objects?

- Does existing equipment have any and all safeguards (be sure to check for after-market ones for used equipment) functional and in place? Is it anchored to prevent tipping?
- Are cabinets and shelving units anchored to the wall, and do shelves have lips or other restraints to minimize damage or injury during earthquake or stock changes?
- Is there sufficient storage space so that heavy objects or hazardous materials are not stored above shoulder height?

Safety Protocols

- Imagine scenarios where you alone or a visitor have an accident – how would you contact emergency personnel (chiefly, is there close and easy access to a phone)?
- Avoid loose clothing, jewelry and unrestrained long hair when working with power tools.
- Keep safety and studio equipment well maintained for a safer work environment.

Electrical:

Strongly consider having an electrical engineer or contractor inspect the space – if you need or are required to make changes or upgrades, their services will almost certainly be required.

Electrical Service

- Is the electrical service (the wiring leading up to the building, the meter, the wiring to the breaker box, and the box itself) intact and free of obvious damage?
- Is the service amperage adequate (energy-drawing equipment such as heavy machinery and electric kilns may, in numbers and with other needs, exceed the available power)?
- Does the breaker box have sufficient slots to handle the number of electrical circuits you require?

Electrical Circuits

- Are there circuits that seem to have too many receptacles on them? Are all circuits properly labeled?
- Are the receptacles sufficient in number and placement so that extension cords are only needed for occasional use?
- If you have multiply items of equipment that have heavy power draws, make sure that no circuit's amperage is exceeded. Trace the circuit back to the panel – its breaker will show the amperage, and you should typically not exceed 80% of that number (if it's unlabeled, the panel cover may have to be removed to trace the line to its breaker). For example, a 30-amp circuit should really not be loaded past 24 amps, so a 16-amp table saw and 12-amp planer, or a pair of 14-amp kilns, should not be placed on the same circuit.
- Are outdoor and indoor receptacles located within six feet of a water supply (sink, shower, etc.) protected by ground fault circuit interrupters (GFCIs)?
- Inspect circuits for damage, chiefly from abrasion.

Other Electrical

- Are electrical cords abrasion-free, are plugs separating from the cord, are ground wires intact?
- Are the main and task-specific lighting systems adequate?

Heating and Ventilation:

An HVAC (heating, ventilation, air conditioning) contractor would be the kind of expert to consult if specific issues needed addressing in this area.

- Set up a schedule for regular maintenance of heating systems, both for filter replacement and routine service by a professional contractor.
- If a furnace is used for heating the studio, make sure that particulate matter cannot reach a combustion source.
- If electric heaters are used, whether baseboard, mounted, or freestanding, make sure that flammable objects are far enough away as designated by the equipment manufacturer and that the units are free of dust.
- If there is any source of combustion in studio processes, make sure that there is adequate fresh air supply.
- If the studio generates airborne particulate matter (e.g., wood/clay/fiber dust), have adequate air filtration and set up a routine for cleaning filters.

Hazardous Material:

Having a professional safety officer look at your studio is recommended – many chemicals are surprisingly volatile, and many localities have differing rules on amounts and disposal methods. And, as with the Safety Equipment checklist, you may want to consult an industrial hygienist on these issues if more information is needed. Also, check the Studio Safety Resources tab on this webpage.

Plan

- Have a chemical hygiene plan – understand the chemicals used, what the ramifications for skin/eye/respiratory contact are, and how chemicals should be stored and disposed of.
- Have a copy of the current Material Safety Data Sheet (MSDS) on hand for each chemical used in the studio.
- Research less toxic options for your art processes and other ways to minimize use of hazardous materials.

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Storage

- Store materials in their original containers or in ones that are compatible (and properly labeled) – some chemicals may corrode metal or explode glass vessels.
- Assess the materials you use and use the appropriate cabinet or cabinets – some should not be grouped together, and you may find yourself needing two or three separate types of very expensive storage units.
- Assess the contents of the cabinet(s) routinely and dispose of aged materials.
- Never store toxic materials above shoulder height.
- If compressed gas is used in the studio, store the cylinders at least 20 feet from highly combustible materials and oxygen cylinders, secured to prevent tipping and protected from falling objects.

Usage

- Know your materials – many have different means of toxic delivery, or cannot be mixed together, or must be kept from temperature extremes, or become unstable over time. If materials have been transferred from their original containers into new ones, make sure they are compatible – with certain chemicals, glass may explode, and metal may be corroded.
- Wear a NIOSH-approved respirator, and keep skin exposure to a minimum (certain chemical are absorbed directly through air-to-skin contact).
- Make sure that adequate ventilation is provided. This means not only enough air movement to disperse fumes to a safe outdoor area but may also require an explosion-proof fan.
- Check your personal habits to make sure that hazardous materials are used in designated areas, and that cross-contamination with other parts of the studio (particularly, where you eat) does not occur. Lack of hand washing is a chief culprit – wash your hand thoroughly after usage.

Disposal

- Whatever means you use to mix or apply chemicals, make sure they can “cure” safely – many can combust if disposed of improperly (notably, rags with oil-based finishes, which, when wadded up, can flame up hours later).
- As noted above, have a formal plan for disposal. A fire marshal or environmental safety officer may be able to help with this. Many landfills have designated areas and times for hazmat disposal – just be careful during transport.

NOTES

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