

Building Art That Burns

Kiwiburn encourages and supports our participants in building amazing art, however we also want everyone involved in the building, viewing, interacting, and burning of your art to stay safe and be in a healthy environment. Below is a series of guidelines on materials and best practices for building Burnable Art at Kiwiburn.

Size

Six factors contribute to the size of your design. Structural stability, Visual impact, budget, time, build safety, burn safety. Some designs lend themselves to being large while others have impact by being smaller with a greater level of detail and craftsmanship.

Restrictions with our fire permits allow maximum build sizes of 11mt high and 15mt in diameter. Tall portions placed on the max of this perimeter need are subject to specific approval. This enables us to maintain burn perimeters and keep people and property safe.

Materials

Materials are included based on three main categories. Environmental impact, likelihood of flaking/flying and creating a fire hazard and clean up after the burn. Materials must be combustible or easily removed after the burn period.

If you have an idea that utilizes a new material, or one on the moderation list please contact the Burnable Art Team who can consult with the local fire department to evaluate whether your material and design shows an acceptable amount of risk or if we will ask you to find an alternate option.

Banned Materials

- No Fireworks
- No synthetic fabrics (synthetics can throw off flakes of burning, melting ash)
- No plastics/PVC
- No oriented strand board
- No glue-based wood materials such as micro density fibreboard MDF, melamine
- No chipboard/particle board. Tempered Hardboard is acceptable as it has a low environmental impact. Most hardboard does not use glues or resins to bind the fibres.
- Nothing classified as a hazardous material
- No oxidizers.
- No flame-retardants.
- No charged electrical components.
- No magazines/newspapers/cardboard/paperboard/poster board/phonebooks/etc.
- No pressure-treated wood. (Beware the green tint- it may contain arsenic).
- No pressure vessels (even empty ones); including spray paint cans, propane canisters, etc.
- No gasoline.
- No white gas (other than for fire dancing use).
- No lighter fluid.
- No LNG (liquefied natural gas).
- No paint with a heavy metal pigment (red/yellow/black lead, cadmium, chrome etc).

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- No more than a minimal amount of duct tape.
 - No natural material high up that can flake off (toitoti etc)

Materials That Can Be Used In Moderation *(things you should speak to your Burnable Arts team about)*

- Ply 9mm+ only, nothing thinner than 9mm and cannot be used up high on a sculpture.
- Only a minimal amount of natural fabrics may be used. We still recommend fabric is removed before burning.
- All paint should be thin layers of colour wash. ie..Watered down paint in multiple layers.
- No treated colour paper or chemicals of any kind to create colour when burning, as that is toxic. Construction paper is safe to use.
- All colour / flame effects / pyrotechnics must be stated in initial application, and require approval from the Event Management Team. All approvals for flame effects and / or pyrotechnics will be made on the day, based on the weather conditions and fire restriction level at the discretion of the Fire Services Team.

Approved Materials

- Bamboo (consider bamboo up high can delaminate and spread sparks).
- Recycled pallet boards (try to utilize non painted and untreated pallets).
- Found wood.
- Non treated framing timber.

During Build

Before and during build you will be required to fill in some WHS (Workplace Health & Safety) paperwork and adhere to NZ safety standards. With this in mind please consider the following:

Please ask your liaison if you are doing work that requires specific work tickets (operating at heights, forklift etc.)

Fastenings. If your design relies on purchasing low quality fastenings or structural material to make budget you will need to rethink the design.

Balance of skilled workers You will be required to have a mix of skilled and unskilled volunteers on your build site. You will need a plan to explain and maintain safety standards that an experienced builder may take for granted. If you need support for this, please contact your Burnable Arts Liaison.

Tool use. You or a knowledgeable member of your team will need to train a bunch of volunteers in safe tool use.

Personal Protective Equipment (PPE). You must ensure your build crew and any visitors to your build site (whether off or on The Paddock) wear the necessary and appropriate PPE at all times

Health & Safety. You must nominate one of your team members as your designated Health & Safety officer and ensure stipulated H&S requirements are met. You should try to ensure that you have at least one crew member who has first aid training/qualifications.

Working at heights. Depending on your design you may need heavy machinery that must be operated by a qualified individual. Even if using a simple scaffold to work at height, safety should be addressed with your crew and the erection of scaffolding must be performed by someone with the necessary competence and/or qualifications. Any working at heights must be approved by the Event Manager.

Lift day. Members of your crew may not be experienced in working alongside cranes. You should have a comprehensive plan on how the lift is going to work, contingencies, all equipment laid out, experienced riggers supervising and the rest of your crew at a predetermined safe distance from operation. Any operation of a crane must be approved by the Event Manager.

Structural Integrity

Chosen designs will be passed to a team of volunteer engineers for approval and suggested changes. It is worth noting that the Engineers and Event Management Team may ask you to add safety features onsite at their discretion. The purpose of this is to ensure that the structure adheres to best-practice relevant standards, and so that everyone involved must be very comfortable with your structure.

You will need to produce working drawings for the structural engineers that clearly show construction materials and methods, including foundations, bracing, and fastenings. You should consider wind loading, people loading (balustrades on decking etc) and burning when you submit these designs. We understand that the final product may not be exactly to plan, but the plans should be a reasonable approximation. Any variation from previously accepted plans must be presented to the on site Event Management Team prior to being implemented, as these may require further approval or proposed changes by a structural engineer.

Burn Plan

Part of your application is a burn plan that will be approved by Event Management and the local Fire Service. It pays to think about how your brainchild will burn at every stage of the design. Structures should be designed for an orderly collapse - top-heavy structures should have weak-points for collapse. Avoiding thick vertical beams will result in a quicker collapse. Consider the following:

- How will it fall
- Hobbling
- Fuel loading (20% petrol 80% diesel is recommended)
- Ember control
- Are there rigging points etc that will need to be removed immediately for participants safety

MOOP Plan

Similarly we need to know what steps you will take to restore the burn scar to as close as possible to a [leave-no-trace](#) condition. This often takes longer than anticipated in post burn exhaustion, so consider:

- Removal of hazards.
- Removal of nails etc - Please use ferrous hardware (screws, nails, etc) that can be picked up with a magnetic sweeper.
- Removal of dug in portions.
- Removal of ash.
- Jumbo bin hire.
- PPE requirements.
- MOOP also covers the control and removal of MOOP during the actual build period itself as well as post-Burn.