



SAMSARA AND 1 DE HARO

Samsara's Tenant Improvement takes
1 De Haro's Base-Build to the Next Level

FSC® 2023 LEADERSHIP AWARD WINNER

TENANT IMPROVEMENT PROJECT PARTNERS

Samsara (Owner), **Hathaway Dinwiddie Construction Company**
(General Contractor / Wood Sourcing), **WRNS Studio** (Architect),
Canopy Project Management (Construction Management)

1 DE HARO BASE-BUILD PROJECT PARTNERS:

SKS Partners (Project Developer), **Perkins&Will** (Architect of Record),
Hathaway Dinwiddie Construction Company (General Contractor),
Nordic Structures (Mass Timber Supplier)

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BENEFIT SOCIETY, GROW REVENUE

Samsara's mission is to: Improve the safety, efficiency, and sustainability of the operations that power the global economy.

When looking for their new headquarters, Samsara prioritized buildings aligned with company values. Their 2022 ESG report stated: **“Stakeholders are demanding that companies benefit society while also growing revenue. Operating ethically, accountably, and with strong governance has a new urgency in a world of increased transparency.”**

“ We invest in our people, address climate risks, and promote social justice within our communities. We look at how we can minimize our carbon footprint in our own daily operations, and we use these principles to guide us on our mission. ”

These principles led them to lease the entire building. At 130,000 sq ft. and LEED Gold, 1 De Haro is the first mass timber building in San Francisco using cross laminated timber (CLT), and the first multi-story CLT building of its type in California.

CLT panels offer dimensional stability with a significantly smaller carbon footprint. Other benefits included lower embodied carbon compared to steel and concrete, a sustainable resource through responsible forestry management, lighter materials, a more natural working environment, and faster speed of construction.

Says Zander Eng, Head of Workplace Design & Build at Samsara, “**1 De Haro embodies our ongoing commitment to sustainability and a flexible work environment. With a diverse range of space types within the building, our HQ has become a destination for people to come together and build meaningful connections.**”

And Perkins&Will Design Director Peter Pfau notes, “**It’s amazing how beautiful it is in there.**”

You don’t have to spend money covering up ugly construction, you just celebrate the beauty of the wood and craftsmanship.”

As a speculative project, mass timber presented additional benefits over concrete and steel as well. It is a more forgiving and flexible framework. The needs of future tenants are met by coring holes in the wood—which can be easily plugged as needs change.

FUNCTION, BEAUTY AND SUSTAINABILITY



The upper floors were constructed with a CLT slab and glulam post and beam structure. For noise dampening, the CLT floors were topped by concrete with an acoustic mat. The stunning wood elements of 1 De Haro inspired a glass curtain wall that wraps the building, naturally lighting the space and showcasing the material to the outside world.

Mass timber was a key selling point as SKS marketed the space. Prospective tenants identified with the building’s story of light environmental impact. They noted a feeling they got from the wood elements. Known as biophilia, it is experienced when inhabiting a space that connects with nature. Research has shown that employees’ well-being, productivity and creativity improve in a natural office environment.

All the mass timber elements for the structure were manufactured using FSC® Certified wood

from Nordic Structure’s 10 million acre harvesting area.

Even with trusted recommendations, **Perkins&Will still inquired about the wood species, forestry management processes, certifications, as well as the mill location and the delivery methods.** This due diligence provides necessary information beyond just selecting a manufacturer. Wood sourced from different forests has different physical properties that impact engineering, and visual differences in species affect the overall appearance.

The decision to source all-FSC material from Quebec was not initially considered viable due to logistics. **Nordic undertook steps to ship material by rail as a means to lower the carbon footprint.** In partnership with the Canadian National Railway, tests validating loading and stability of CLT on flatcars were undertaken. Once approved by the American Association of Railroads, **Nordic shipped 19 railcars to California where they were delivered by truck to the jobsite. Total GHG reduction of 2964 metric tonnes was achieved by choosing wood and shipping by rail.**

Ultimately, design teams need to find a manufacturing partner that shares their vision—both for the project and for a carbon-free future.



A CASE STUDY BY STOK, THE LEED PROJECT CONSULTANT, FOUND:

- ▶ 1,806 Metric Tonnes/CO₂ is sequestered in the structural wood components
- ▶ 700 Metric Tonnes/CO₂ were avoided by opting for mass timber over concrete and steel
- ▶ 90% of construction waste was diverted from the landfill

SKS received three offers to lease the entire building once Schematic Design was completed.

1 DE HARO WON THE FOLLOWING AWARDS:

- ▶ Honor Award, AIA San Francisco, 2022
- ▶ Commercial Wood Design, Mid-Rise, WoodWorks, 2022
- ▶ FSC® Leadership Award, 2022

WRNS Studio, the interior design architect, leveraged Perkins&Will's use of FSC® certified CLT, promoting a warm aesthetic, minimizing finish materials, and relaying a commitment to reduced embodied carbon.

The wood specified for the interior is nearly 100% FSC-certified, helping the TI project achieve LEED Platinum, exceeding expectations of a new local law mandating that first-generation tenant improvements achieve LEED Gold or higher.

FSC® SPOTLIGHT

Perkins&Will, 1 DeHaro's design architect, produced a webinar: *Mass Timber – Why Wood Works*, posing the following questions:

How are environmental implications of tree farming (monocultured tree farms and land requirements to host these farms) addressed when determining how sustainable mass timber is? Do certain tree farms implement more sustainable practices than others?

The answer was: Our control over this is best suited to procurement via proper forestry management.

This is why we always push for FSC®-certified wood for our projects. Our goal is to shift timber resources from short term pulp and paper to long-term carbon sequestration that doesn't require any increase in timber farming.

The triangular building site had the project team considering wood early on. **It is adjacent to an underground portion of Mission Creek, and poor soils required deep piles to anchor the building.** The weight of the building determines the number of piles necessary.

For comparison, Perkins&Will carried both conventional and mass timber designs through schematic design. **At one fifth of the weight of a comparable concrete/steel structure, mass timber had a clear advantage.**