9 GOALS

The campus portal will ensure that prospective students discover the Hampshire education more directly.

Meeting a variety of space needs, the campus portal will be a place that encourages community, collaboration and conversation.

The campus portal will enhance the admissions process and relieve limitations imposed by the current buildings.

The project will push the bounds of environmental design by achieving ‘living status’ under the Living Building Challenge (LBC).

The design should embody & convey Hampshire College’s values, helping tell the story of a unique, progressive, & experimenting intellectual community.

The architecture of the campus portal should belong to its context. A context of New England farmhouses and ‘Brutalist’ modern architecture, mountain views, and valley vistas. The building should be organized to frame its natural setting.

The design of the portal should be accessible, flexible, and adaptable.

The landscape should invite people to be around the portal building, not just inside it.

Design and decision making should happen in a collaborative process that yields good results while allowing input, investigation, and inquiry.
CHLOROBENZENES

Chlorobenzene is a colorless and flammable liquid. It is used as a solvent for olefinic ethylenes (ARE), which bioaccumulates and has been shown to cause endocrine disruption in fish. They are in cleaning products that end up in wastewater from treatment plants.

ASBESTOS

Asbestos is a natural fiber that is in a variety of construction materials for its strength and heat-resistant qualities. Asbestos is a known human carcinogen, carrying risks of lung and mesothelioma, and asbestosis.

BISPHENOL A

Bisphenol A is an industrially manufactured polycarbonate floor, hard plastics and epoxy resin. Most North American testing has shown the potential health-related concerns to be potential impacts on the brain, behavior, and growth of infants, children, and small children.

CADMIUM

The US Department of Health and Human Services (DHHS) and the International Agency for Research on Cancer have both classified cadmium as a known human carcinogen, associated with lung cancer. Additionally, cadmium and long-term exposure can lead to kidney and liver damage, bone loss, hyperventilation, cardiovascular disease, and deformities in infants. Cadmium's extreme toxicity means that even overexposure to this chemical can be present, such as during smoking and asbestos-related activities.

POLYETHYLENE

Chlorinated polyethylene (CPE) and chloroformulated polyethylene (CFPE) are Persistent Organic Pollutants. Source: data from their chlorine-based base. These two chloropolymer products contribute to the creation of dioxins and furans at different points in their life cycle, such as manufacturing and/or disposal. According to the World Health Organization, dioxins are some of the most potent toxins known to humans, with no known safe level for exposure and a strong propensity for bioaccumulation.

CHROMIUM VI

Chromium is a naturally occurring element and chromium (III) is an essential nutrient. Chromium VI (bichromate) can cause serious health issues. Long-term or high-level exposure through inhalation can cause nasal irritation and ulcers, breathing problems, and nasal and lung cancer in experimental animals. Ingestion can cause anemia and/or stomach tumors. Skin contact can cause skin ulcers and allergic reactions.

FORMALDEHYDE

Formaldehyde is classified by the International Agency for Research on Cancer and the State of California as a known human carcinogen. Common health effects at low levels of exposure to this volatile organic compound include irritation and sensitization as well as acting as an asthma trigger. Long-term exposure is associated with nasal cancer and other respiratory problems. The traits that make wood treatments popular are durability, ease of use, and cost, among others. Exposure is highly persistent in the environment. Similarly, future accumulation in animal feed, contaminating as they travel up the food chain.

CHLOROFLUOROCARBONS

Chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) are known ozone-depleting compounds. While less destructive than the chlorofluorocarbons, HCFCs are targeted for gradual phase out by the UN with a total phasing out after 2020.

CHLOROPRENE (NEOPRENE)

Chloroprene is a synthetic rubber that is a contributor to the creation of dioxins at different points in its life cycle (often manufacturing and/or disposal). According to the World Health Organization, dioxins are some of the most potent toxins known to humans, with no known safe level for exposure and a strong propensity for bioaccumulation.

CHLORINATED POLYVINYL CHLORIDE (CPVC)

Chlorinated polyvinyl chloride (CPVC), polyvinylidene chloride (PVDC), and polyvinylidene fluoride (PVDF) are used in pipes, membranes, and other applications. Long-term exposure to this chemical in waterways from wastewater treatment effluent.

PERFLUORINATED COMPOUNDS

Perfluorinated compounds (PFCs) include a variety of chemicals that have many uses, such as surface treatments to repel water and stains, uses in chemistry and research, in the semiconductor industry, and in some medical manufacturing sources. Many of them are greenhouse gases and bioaccumulates in the environment, but are not stored in human body fat. Animal studies show evidence of endocrine disruption, immune function issues, liver and pancreatic damage, and developmental problems.

PHALATIES

The manufacture and disposal of PVC can result in the production of dioxins, diatoms, and endocrine disruption. The traits that make wood treatments popular are durability, ease of use, and cost, among others. Exposure is highly persistent in the environment. Similarly, future accumulation in animal feed, contaminating as they travel up the food chain.

MERCURY

According to the World Health Organization (WHO), mercury produces a suite of effects including damage to the brain, nervous system, immune system, and even death. The WHO lists children and developing brains as especially vulnerable to damage from mercury. Mercury bioaccumulates in the environment, eventually reaching concentrations thousands of times more intense than ambient levels.

POLYCHLORINATED BIPHENYLS

Polybrominated biphenyls (PCBs) manufacturing in the US stopped in 1977 but the compound persists in the environment today in industrialized countries, manufacturing and disposal sites, in old electrical transformers and electrical devices, and in fish and their predators. PCBs are known to cause cancer in animals and are probable human carcinogens. Health effects also include acne-like skin conditions and metabolic and immunological changes in children.

WASTE TREATMENT CONTAINING CREEOSITE, ARSENIC OR PENTACHLOROPHENOL

Most concerns are focused on alkylphenols. Ozone-depleting compounds. While less destructive than the chlorofluorocarbons, HCFCs are targeted for gradual phase out by the UN with a total phasing out after 2020.

VOLATILE ORGANIC COMPOUNDS (VOCs) IN WET-APPLIED PRODUCTS

VOCs are identified by name and CAS number.

REGULATED SUBSTANCES

EXISTING (1976)

1. PCBs
2. Chlorofluorocarbons
3. Vinyl
4. Methyl (asworn 1991)
5. Hexavalent chromium

NEW

6. Mixed mono & diamines of an organic acid
7. Triethanolamine salt of a substituted organic acid
8. Triethanolamine salt of trichloroacetic acid
9. Tricarbonylic acid

250 chemicals have been tested today

83,000 substances identified by name and CAS number

20 categories over 800 chemicals identified in 1976

62,000 original substances identified in 1976
ZONE 1
- Concrete, masonry, metals

ZONE 2
- Wood, plaster, interior doors + windows

ZONE 3
- Roofing, flooring, ceiling

ZONE 4
- Consultant travel

ZONE 5
- MEP, exterior doors + windows