

# Creating a Materials Action Plan that works

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# What is a Materials Action Plan?

Building upon your firm's Sustainability Action Plan (SAP)—or serving as the catalyst for starting one—a Materials Action Plan (MAP) outlines specific goals related to materials selection, documentation, and design from early options through procurement. The selection of materials presents opportunities for collaboration across the firm, involving project architects, specifiers, interior designers, company owners, and others.

AIA's [Architecture & Design Materials Pledge](#) provides a framework to set targets and assess progress, aligning your efforts with those of other firms across the country. Progress is evaluated across five impact categories: human health, social health and equity, ecosystem health, climate health, and circular economy. To learn more about the impact categories, please visit the [AIA Materials Pledge Starter Guide](#). This guide will help you integrate holistically-responsible material selection into your unique design processes and projects.

Your MAP can look both inward and outward. Inward, by giving your firm a clear understanding of what is important, what will be tracked, when, and how; and outward, by signaling to product representatives, clients, and the industry-at-large your firm's stance on acceptable products for projects and materials library criteria—while also positioning your firm as part of the AIA Materials Pledge signatory community.

A firm's MAP is an evolving document. It is meant to document a firm's goals at a point in time, but is strongly encouraged to be considered a living document as firms grow and evolve. We suggest integrating your MAP directly into the body of your SAP if you have one, as materials are a critical component of firmwide sustainability and design.

The following are structured pathways that allow for integration of materials-focused goals and benchmarks into an MAP. First, via the seven components detailed in AIA's [Creating a Sustainability Action Plan that Works!](#) And second, by the AIA Materials Pledge's five impact categories. Note that no one size fits all—your firm's MAP can take pieces of the following suggestions and form what will best suit your firm's goals and needs.

# Suggested components of a Materials Action Plan

## 1. Company commitment

### Where to begin: Align with firm values

Relate your participation in the Materials Pledge to your firm's larger mission and philosophy. How do your material vetting and selection policies reflect your firm's ethos and respond to the types of projects you deliver? This is also a chance to reflect on how materials selection can be communicated as part of your value proposition to clients and staff.

### Advancing forward: Build the foundation

Articulate why this work matters, using supportive quotes from sustainability teams and/or firm leadership as testimonials. Summarize what your firm has accomplished, which can include initiatives, pilot projects, or policies that have been implemented; with quantitative metrics where applicable. And give a call to action for the firm as a whole, emphasizing collective action to meet goals.

## 2. Design and approach

### Where to begin: Examine your design process

To integrate goals for material selection, start by reviewing your design process (or mapping it out, if it isn't already documented). At what stages does material selection typically occur in the project timeline? Who is involved in those decisions? How are decisions recorded? Discuss whether the current process allows time and space for goal setting, tracking, and/or improvement.

### Advancing forward: Expand on existing practices

Build from what you may already be doing: Is there a project that pursued safer materials for human health, or incorporated embodied carbon modeling? Review those projects to determine if the lessons could be applied broadly.

Integrate a review of materials selection with existing aspects of your overall design process. What are your established milestones for assessment, data collection, and optimization (e.g. Schematic Design pin-up, Design Development QA/QC, or a Finish Schedule)? Could materials choice points be included in these milestones?

## 3. Goal-setting and evaluation

### Where to begin: Firmwide strategy

While universal metrics and benchmarks are less established for materials than for energy performance, the data collected from Materials Pledge signatories will help lay the groundwork for industry standards going forward. AIA's [Materials Pledge Reporting Guide](#) lays out a list of possible transparency and optimization options for each impact category and can be used as a framework for goal setting.

Consider whether goals at the firm strategy level, project level, or product level make the most sense for your firm and start there. Goals at the firm level could be centered around materials library standards, at the project level could involve tracking materials reuse or waste diversion, and at the product level could include selecting a few highly used (by your firm) product types and tracking their impact.

#### Firm level

materials library standards



#### Project level

tracking material reuse



#### Product level

tracking product impact



### Advancing forward: Expand the goals

Increase the number of product types or projects being tracked. Commit to collecting and aggregating this data in a central location.

Once you have developed a system for tracking transparency metrics in a given category, consider adding optimization goals. For instance, if you are tracking Environmental Product Declarations (EPDs) for concrete, you can commit to specifying a regionally appropriate Global Warming Potential (GWP) reduction for ready mix concrete. For interior finishes, you may commit to specifying more Red List free products, or to eliminating substances of concern, such as PVC.

For each category, consult the Materials Pledge Reporting Guide for the most impactful optimizations. Refer to the Guiding Questions list below for a helpful starting point.

## 4. Governance and reporting

### Where to begin: Establish data collection infrastructure

Identify a task team/point person for data collection and reporting. Project member participation in data collection efforts can increase awareness of the impact categories and strategies. Engage as many stakeholders as possible who can leverage the reporting structure to advance the practice forward in material/product selection.

Establish milestones in data reporting efforts, such as how many projects and products can you report this year? What infrastructure do you need to expand to support more project and product reporting in the next year?

### Advancing forward: Scale your impact

Identify ways to track strategies/certifications during product selection. For example, consider leveraging product selection tools such as [Acelab](#), [BuildingEase](#), [Sustainable Minds](#) Project Builder, or simple spreadsheets to track your product selections.

Use the previous year's [Materials Pledge By the Numbers report](#) to assess your firm's current standing. Next, identify areas of improvement. Share your findings within the firm and garner collective support to build on existing knowledge and track product selections more closely. This will help streamline the reporting process for the next year.

## 5. Internal training and education

### Where to begin: Introduce the Materials Pledge

Create an initial firmwide presentation that explains what the Materials Pledge is, its five impact categories, and why a holistic approach to materials selection matters. Connect it to your firm values and to how it aligns with your Sustainability Action Plan (SAP), if you have one in place.

Introduce additional resources like [mindfulMATERIALS's Common Materials Framework](#), [Living Future's Red List](#), and the [EC3 tool](#) that support AIA Materials Pledge goals.

### Advancing forward: Deepen materials knowledge firmwide

Provide additional opportunities, including impact category deep dives and project-based learning presentations, to engage firm learning.

Establish a physical or digital location for resources and tools related to the Materials Pledge and holistic materials selection. Establish materials experts in your office who can be resources to other staff on specific categories of impact

or material types. Finally, provide an annual debrief to the firm on Materials Pledge reporting and any progress related to goals or tracking.

## 6. Outreach, advocacy and external knowledge-sharing

### Where to begin: Plan communication

Clarify how your teams should effectively communicate your firm's healthy materials strategies with clients and consultants. Decide how you'll speak about your commitments with product representatives or industry contacts and encourage your marketing staff to participate early on.

### Advancing forward: Expanding your reach

Consider advocating on the local or national level for policies that advance healthy materials in the practice of architecture. Identify opportunities to contribute to the healthy materials movement at large, such as participation in events, conferences, professional memberships, or volunteer leadership positions.

## 7. Operationalizing your MAP

### Where to begin: Internal audits

Understand your firm's operating procedures for purchasing and/or disposal policies regarding materials. For instance, scrutinize your firm's office supplies, furniture, cleaning supplies, and equipment policies. Do they align with the goals you set for your design projects?

Identify waste streams. This may include commingled waste, cardboard, paper, compost, plastic bags, batteries, product samples, packing and shipping materials etc. Are there policies to tackle waste management within your firm's operations?

### Advancing forward: Close the loop

Restrict use of cleaning and disinfectant supplies with hazardous or harmful ingredients. Optimize furniture selection through the material health impacts lens. Identify opportunities to procure/discard office supplies through resource exchange marketplaces such as [Rheaply](#), [WasteTrade](#), or [TerraCycle](#).

Ensure proper waste segregation practices in the workplace. Dedicate time and resources for active participation—through staff education on waste diversion streams or allotting time for clean-up in a responsible fashion. Consider partnering with local waste recovery programs to minimize waste sent to landfills.

# Guiding questions for the Material Pledge's Five Impact Categories

The Materials Pledge provides a holistic framework for goal setting and the establishment of key performance indicators (KPIs). The guiding questions and resources below can help you get started. Remember: Not every category or goal needs to be addressed or achieved on the same timeline.

## Human health

### Beginner questions

- Are you asking for transparency and disclosure information?
- Do your standard specifications include VOC content limits and emissions test requirements?
- Do your standard specifications have any restrictions for eliminating substances of concern?
- Does your firm evaluate materials based on human health impacts?

### Advanced questions

- Does your firm avoid products that contain specific substances of concern?
- Do you have certain product types or CSI divisions you focus on for eliminating problematic substances?
- How do you verify that products meet your human health impact requirements?

### Programs & certifications

Health Product Declaration (HPD), Declare label, Living Product Challenge, Cradle to Cradle (C2C) Certified Product, Cradle to Cradle (C2C) Material Health Certificate, BIFMA LEVEL, VOC content and LEED-compliant emissions testing

### Additional resources

[Common Materials Framework \(CMF\)](#), [Habitable Informed](#), [Green Science Policy Institute \(GSPI\) Six Classes of Harmful Chemicals](#), [The New School Parsons Healthy Materials Lab](#)

## Social health and equity

### Beginner questions

- Are you or your firm increasing awareness of potential human rights abuses in material supply chains?
- Have you communicated to manufacturers and product representatives that social health and equity are a priority?
- Have you reviewed products that have the certifications listed below?

### Advanced questions

- Do you have a protocol for designers to reach out to manufacturers using the Design for Freedom Toolkit letter template to request transparent information about manufacturing locations?
- Are you reviewing sourcing, extraction, and manufacturing locations against Design for Freedom guidance to evaluate risk throughout the supply chain?
- Are you reviewing manufacturers' certifications as indicators of company values for social health and equity, such as B Corp and the Just label?

### Programs & Certifications

Cradle to Cradle (C2C) Certified Product – Gold for Social Fairness, Living Product Challenge, Forest Stewardship Council (FSC)

### Additional Resources

[Built on Repression](#), [Design for Freedom Toolkit](#), [UW CBE & ZGF – Environmental and Social Justice in Building Materials; Who Bears the True Cost? \(2024\)](#), [COOKFox Architects – Survey of Labor Certifications for the Built Environment \(2022\)](#), [BWBR – Forced Labor in the Building Material Supply Chain Mitigation Framework \(2023\)](#)

## Ecosystem health

### Beginner questions

- Have you specified products that have the certifications below?
- Can building products be reused to reduce impacts on natural ecosystems?
- Have you designed to eliminate the use of wood from threatened tree species, following guidance such as LEED pilot credits?

### Advanced questions

- How does your firm prioritize projects and products that minimize pollution (from raw material extraction to end of life), promote biodiversity and conservation, and minimize their water footprint?
- When are salvaged materials or materials with high recycled content an appropriate option to avoid virgin resource extraction and processing impacts?
- How does your firm conduct Whole Building Life Cycle Assessments (WBLCA) to avoid outsize planetary impacts from high impact materials, assemblies, and the overall building?

### Programs & certifications

Forest Stewardship Council (FSC), Cradle to Cradle (C2C) Certified Product (Water & Soil Stewardship), Living Product Challenge, Environmental Product Declaration (EPD), ANSI/NSI 373 (Natural Stone), BIFMA LEVEL

### Additional resources

[WWF Wood Risk Tool](#), [Preferred by Nature Sourcing Hub](#), [FSC Supplier Database](#), [Stockholm Resilience Center Planetary Boundaries](#), [UN IPBES Global Assessment Report on Biodiversity and Ecosystem Services](#), [Biomimicry 3.8 Impacts to Biological Cycles](#)

## Climate health

### Beginner questions

- Can you reuse either a building's structure or individual products within your projects?
- Are you specifying products with product-specific, third-party verified EPDs?
- Are you specifying low-carbon and bio-based carbon sequestering materials?

### Advanced questions

- Do you start projects with an embodied carbon plan and evaluation of the biggest impact materials?
- Are you specifying embodied carbon global warming potential (GWP) limits for targeted product types to lock in lower carbon materials?
- How does your firm conduct Whole Building Life Cycle Assessments (WBLCA) to avoid outside planetary impacts from high impact materials, assemblies, and the overall building?

### Programs & certifications

Environmental Product Declarations (EPDs), Green Circle Certified

### Additional resources

[AIA's 2030 Commitment](#), [Carbon Leadership Forum](#), [Architecture 2030](#)

## Circular economy

### Beginner questions

- Are you able to use salvaged, reclaimed, or reused materials and products?
- Can you select materials with recycled content?
- Can you select materials with the certifications listed below?
- Can you identify common products (such as carpet and ceiling tiles) with verified Extended Producer Responsibility (EPR) programs?

### Advanced questions

- Can you identify additional products with verified Extended Producer Responsibility (EPR) programs?
- If you're working with an existing building, are there opportunities for existing material salvage, reuse, or reclamation? Are there opportunities to send existing materials back to the manufacturer via EPR programs?
- Can you specify easily detached modular materials for future recovery?
- Can you specify mechanical (not adhesive) installation for any products?
- Can you prefer products with recoverable material contents (not composites)?

### Programs & certifications

Cradle to Cradle (C2C) Certified Product Silver and above, C2C Certified Circularity, Certified Closed Loop (GreenCircle), LEED compliant Extended Producer Responsibility programs

### Additional resources

[Build Reuse](#), [AIA's Design for Adaptability, Deconstruction, & Reuse](#), [Ellen McArthur Foundation](#), [NYC EDC Circular Design & Construction Guidelines](#), [Cradle to Cradle](#)

# Sample Materials Action Plans and material selection guidance


## Bora Architects

50-99 employees

Bora Architects has created a clear, publicized list of chemical substances they are seeking to avoid specifying in all their projects.

### Bora's Chemicals of Concern

Intrinsic to our material selection philosophy is the knowledge that many substances, ubiquitous in the built environment, cause harm to people and the natural environment. On each project, we set out to avoid the chemicals of concern listed below, and with each effort, come one step closer to a world free of these dangerous chemicals.



#### EXTERNAL Environmental Concerns

**Polyvinyl Chloride (PVC) + Chlorinated PVC (CPVC)**

The production of PVC is extraordinarily toxic and energy intensive, and there are no safe outcomes at the end of its useful life. Its negative impacts have heavily hit lower income and minority communities that live near production and incineration facilities. These incineration, societal, and environmental costs are not reflected in the purchase price of PVC products, though alternatives are readily available for most applications.

- Vinyl Flooring
- PVC Roofing
- Vinyl Windows
- Plastic Wall Protection
- Fabrics + Window Coverings
- Furniture

**Per and Polyfluorinated Substances (PFAS)**

PFAs are reproductive toxins and endocrine disruptors that are extremely persistent and bioaccumulative in the environment. They are used to increase water, stain, or abrasion resistance in products. Increased awareness of their negative impacts is making them easier to avoid.

**Antimicrobials**

Antimicrobials are developmental and aquatic toxins. Some provide necessary product preservation, but overuse may contribute to increased antibiotic resistance. They provide no proven health benefits and should be avoided when marketed with health claims.

**Arsenic, Cadmium, Chromium, Lead, Mercury**

These toxic metals are extremely hazardous in very small doses, especially to young children. In addition to some architectural products where they can be avoided, they are found in plumbing and electronic equipment, batteries, and fluorescent lighting.

**Alkylphenol Ethoxylates**

APEs are endocrine disruptors that bioaccumulate in the environment. It is unclear at this time how prevalent their use is in the products we specify.

**CFC, HCFC, HFC**

These substances contribute substantially to global warming. Regulations are gradually phasing out the most of these, along with those that are ozone-depleting.

- Carpet Resilient Flooring
- Floor Sealant + Coatings
- Grout
- Textiles

- Textiles
- Countertops
- Baby Changing Stations
- Many Other Touch Surfaces

- Wood Preservatives
- Glass + Pigments
- Metal Plating
- Fly Ash Recycled Content in Carpet
- Products with Recycled PVC
- Rubber Flooring with Recycled Tires

- Paint

- EPS + Spray Foam Insulation

#### INTERNAL Health Concerns

**Formaldehyde**

Formaldehyde is readily emitted into interior environments causing respiratory and other short and long term health issues. Options for alternative emitting or nonadded formaldehyde are typically available.

**Halogenated + Organophosphate Flame Retardants**

Flame retardants are associated with lower IQ and hyperactivity in children, hormone disruption and reduced fertility in adults, and these types are highly persistent and bioaccumulative in the environment. They often do not increase fire safety and pose additional risks to fire-fighting personnel.

**Antimony Trioxide Flame Retardants**

Antimony Trioxide is a concerning member of the non-halogenated and non-organophosphate flame retardant categories.

**Orthophthalates**

Phthalates are developmental and reproductive toxins, endocrine disruptors, and carcinogens, and persist and bioaccumulate in the environment. They are used primarily to make materials such as PVC softer and more flexible, providing another reason to avoid vinyl products.

**Bisphenol A (BPA)**


BPA is a reproductive and developmental toxin and endocrine disruptor that persists and bioaccumulates in the environment. It is a component of some polycarbonate plastics and epoxies and should be easy to identify in ingredient disclosure documentation.

**Isocyanates**

Isocyanates are asthmagens and air pollutants. Some provide the only and preferred alternative to formaldehyde binders, but other products with isocyanates should be avoided.

**Halogenated Solvents**

Solvents can cause short term health effects like headaches and contribute to long term neurodevelopmental effects and cancer. Use water based alternatives.



- Composite Wood Products
- Insulation

- EPS+EPS Insulation
- Single Ply Roofing
- Urethylurea Foam

- Batt + Spray Applied Insulation
- Carpet Backing + Vinyl Flooring
- Single Ply Roofing
- Polycarbonate + Epoxy Coatings
- PET Textiles

- Carpet Backing + Vinyl Flooring
- Woodwork Adhesives + Binders
- Roofing

- Flooring
- Laminates
- Grout + Mortar
- Polycarbonate Panels/Skylights
- Whiteboard Paint

- Spray Foam Insulation
- Whiteboard Paint

- Paints
- Wood Finishes
- Adhesives

**References**  
 International Neurotoxicology List | Green Science Policy Institute | Six Classes | Healthy Building Network Transformation Targets | International Living Future Institute LBC Tool List | Guide to Greener Products | Innovation Institute | Restricted Substances List

## EwingCole

100-499 employees

Ewing Cole’s Materials Action Plan lays out a clear timeline for progress toward improving materials selection, with concrete short-, medium-, and long-term goals, accountability mechanisms, and specific definitions of ‘success’ for each of the Material Pledge’s five Impact Categories.

### TIMELINES AND TARGETS

While the Pledge does not have mandatory timelines for specific deliverables, we have built the following roadmap toward the overarching goal of holistically responsible material sourcing. Our approach is methodical and phased for developing standards, embedding processes, and building foundational knowledge to attain far-reaching goals. We then shift to collective improvements, and lastly to positive, restorative selection across categories and material divisions. Highlights of this approach are noted below.

#### 2023 – 2025

##### Development of Standards, Process, and Education

By 2025, 100% of projects are using our Materials Tracker and submitting data internally.

By 2024, 100% of Division 01 and technical specifications have been updated for holistic, responsible material sourcing.

By 2024, Requirements for sustainable materials education have been established by role for each design discipline and as part of new hire on-boarding.

By 2025, All entries in the internal Design Resources Library are vetted according to sustainable material criteria.

#### 2025 – 2030

##### Shift to Holistic Improvements

By 2025 50% of projects attaining success in 2 or more health buckets as defined below.

By 2030, 100% of projects attaining success in 3 or more health buckets as defined below.

**Human:** 10 Redlist chemicals have been removed from all specifications.

**Climate:** All project teams are using Global Warming Potential (GWP) thresholds to inform material selections

**Ecosystem:** Specify all wood products to be FSC Certified or equivalent. Prioritize products with low impact via EPD documentation. Prioritize products w/ low embodied water.

**Social Equity:** Prioritize materials with low-risk of forced labor and environmental racism. Prioritize community benefit through regional sourcing and incorporation of local cultures and traditions.

**Circular Economy:** Establish methods for discussing reuse of buildings and components with clients and delineate design pathways to do so. Prioritize zero-waste manufacturers for new products, specify salvaged construction materials

#### 2030 – 2040

##### Regenerative

By 2035, 100% of projects attaining success in all 5 buckets as defined below.

**Human:** All materials selected are Redlist-free unless viable alternatives are not available

**Climate:** Prioritize materials that are biobased and sequester carbon from the atmosphere. All specifications (for which data is available) include GWP thresholds that are significant improvements from typical practice.

**Ecosystem:** Select products that have biodiversity and conservation certifications or approved research. Select products with minimal water footprint for manufacturing.

**Social Equity:** Materials with high risk for forced labor and environmental racism are completely avoided, and specified materials have documentation via approved certification or research review.

**Circular Economy:** 2030: Establish a reuse target as an overall percentage of our portfolio, and be achieving that target by 2040. Specifications updated to include instructions for disassembly of building components.

## MSR Design

50-99 employees

MSR Design's extended guidelines and resources on materials, developed through their participation in the Materials Pledge, provide useful guidance for creating a firm's material library entries and vetting criteria.

# Sustainable Materials Action Packet

01 June 2023

We build with thousands of different materials. It matters, where those materials are coming from and how far they traveled, who produced them, how they were manufactured, and whether products and materials are designed for a future life when the building comes down.

This packet documents tools and thought processes that can help inform better material design choices. We encourage you to adapt these resources to the needs of your organization or practice and share them with others. The more we work together to improve the building products industry, the better it will be for our planet and its inhabitants. We welcome feedback at [generativeimpacts@msrdesign.com](mailto:generativeimpacts@msrdesign.com)

Download the latest version of this packet at [msrdesign.com/generative-impacts](https://msrdesign.com/generative-impacts)

### Materials Library Entry Criteria

To align our projects and practice with the sustainable and healthy building materials movement, we communicate our intentions to building products sales representatives and manufacturers using this one-page handout, which contains three categories of action:

#### 1. What We Require: Transparency

A growing number of architecture firms and client organizations are requesting transparency on the composition and embodied carbon of building products.

#### 2. What We Avoid: Harmful Ingredients and High Carbon Footprint

Transparency from product manufacturers plus growing industry knowledge enables us to select products for lower toxicity and carbon footprint.

#### 3. Interpreting Eco-labels and Other Data

We support manufacturers that are leading market transformation in their product sector, and obtaining appropriate certifications.

### Sustainable and Healthy Building Materials A Practice Guide

We want the entire world to understand what it means to use better materials.

#### 100 Level: Fast Track Learning 1-2-3

Accessible videos for everyone, including firm leadership and project managers.

#### 200 Level: Early Steps for Better Materials

Select resources to support carbon and health-based materials decisions early in design or the RFP process.

#### 300 Level: Find Products and Materials

Tools and databases to help you find better products.

#### 400 Level: Advanced Learning

Chemistry deep dive, great case studies, latest research, best practice guides, and guidance for rewriting architectural specifications.

### Tools for Product Manufacturers

This page highlights resources that are available to assist manufacturers in developing their documentation and becoming leaders in their sector. There is incredible room for innovation at this time as we find ways to move away from petroleum-based building products.

#### Cost-Of-Documentation Matrix For Manufacturers

Transparent reporting on ingredients, supply chain and embodied carbon is new and rapidly expanding territory for building product manufacturers.

#### Architectural Samples Donation Guide

To reduce waste, we have developed a workflow for returning product samples, but sometimes they still pile up, so we worked with Twin Cities ReStore, a branch of Habitat for Humanity, to develop guidelines for donating certain reuseable samples such as discontinued carpet tiles.

## Miller Hull

50–99 employees

In their Materials Action Plan, Miller Hull commits to both transparency and optimization for their product selections in specific areas, requiring material and health disclosures for all products as well as a minimum 10% improvement over GWP baseline.

### GOALS, OBJECTIVES & STRATEGIES

## DESIGN WORK

### Goal A: 100% Regenerative Design by 2030

#### Objective A.1: Target Net Positive Energy

- Achieve Architecture 2030 Challenge Targets
- Use energy modeling to support design decisions
- Implement daylight optimization studies on every project
- Implement envelope optimization studies on every project

#### Objective A.2: Target Carbon Sequestration

- Achieve Architecture 2030 Challenge for Embodied Carbon Targets
- Encourage existing building alternatives
- Optimize design of structure, enclosure and finish systems
- Integrate decision making for operational and embodied carbon
- Request EPDs to encourage market transparency
- Maximize local sourcing of products and materials

#### Objective A.3: Target Net Positive Water (potable, gray and black water)

- Reduce demand for non-drinking water
- Incorporate water reuse strategies
- Manage rainwater to be a net benefit
- Manage stormwater to be a net benefit

#### Objective A.4: Design for a regenerative site

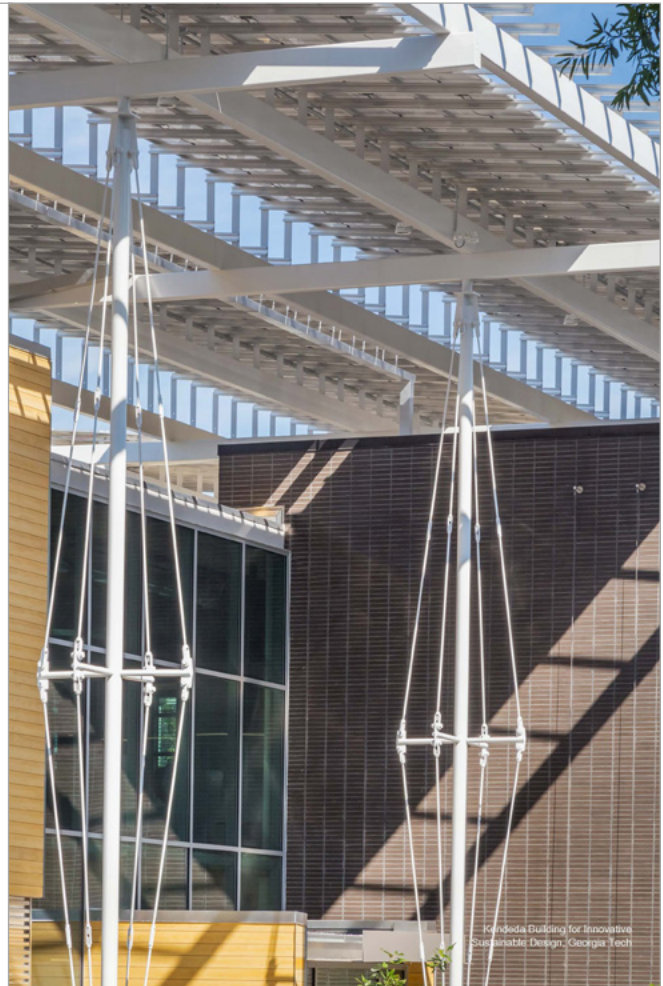
- Restore the ecological health of the site
- Bolster the ecosystem services provided by the site
- Design to sequester carbon in the landscape

#### Objective A.5: Design to achieve the LBC Materials Petal

- Vet all specified products for the most current version of the Living Building Challenge Red List compliance
- Specify wood as FSC certified or 100% salvaged/reclaimed
- Request material ingredient disclosure to encourage market transparency
- Identify materials with recycled content and/or local sourcing for final assembly
- Request GC partners implement a salvage assessment

#### Objective A.6: Prioritize Occupant Health









- Optimize indoor air quality to reduce pollutants and CO2
- Incorporate lighting design to support circadian rhythm
- Design to promote physical activity
- Incorporate Accessibility and Universal Design



## Spacesmith LLP

20-49 employees

Spacesmith’s Sustainability Action Plan sets goals across a one, three, and five-year timeline for each AIA Framework for Design Excellence principle. Under Resources and Well-being, there are clear materials-specific goals to support the five Materials Pledge Impact Categories.

Goal Timeline	Measure	Target
	<b>Lighting Power Density</b> Calculate the total installed lighting power density (LPD) for the project. LPD is a valuable indicator for a project’s overall energy savings.	20% reduction from COTE benchmark.
	<b>Window-Wall Ratio</b> Record building’s window-wall ratio, which can be optimized for daylighting without increasing energy	Between 30% and 40%.
	<b>Monthly Data</b> Gather data from energy modeling and utility bills to determine predicted and measured energy use, including from renewable sources. This ensures energy-efficient design strategies work as intended.	80% reduction.
<b>RESOURCES</b>		
	<b>Environmental Product Declarations</b> Prioritize products with EPDs. EPDs provide verified, transparent, and comparable information about a product’s environmental impact over its entire lifecycle, helping us make informed decisions	60% of materials specified by Spacesmith.
	<b>Building Reuse / Life Span</b> Reuse as much floor area as possible to minimize the environmental impact of new construction.	As high as the project and programming allow.
	<b>Recycled / Regional / Reused / Third-Party Certification Materials</b> Specify local, recycled, salvaged, FSC, and bio-based materials to support responsible material extraction, reduce emissions associated with transportation, and contribute to local and circular economies.	75%.
	<b>Embodied Carbon / Tools and Scope</b> Calculate the embodied carbon for the entire project. Embodied carbon is a key indicator of its environmental impact	Below average kg/CO <sub>2</sub> e/sf for building type 100% tracking rate for ground up projects.
	<b>Embodied Carbon / Calculations and Strategies</b> Track the predicted embodied carbon for the project, as well as embodied carbon intensity, and the strategies implemented to reduce it.	At least 4 strategies implemented, or an Embodied Carbon Reduction Score of at least 50%.

## ZGF

500-999 employees

ZGF uses an internal 'green dot' criteria system to mark materials that meet specific transparency and optimization requirements in each of the Material Pledge's five Impact Categories, and communicate this information to building owners and product manufacturers

### ZGF Green Dot Criteria Overview

<b>Human Health</b>	<b>Climate Health</b>	<b>Social Health + Equity</b>	<b>Ecosystem Health</b>	<b>Circular Economy</b>
<ul style="list-style-type: none"> <li>Health Product Declaration (HPD)</li> <li>Declare</li> <li>Living Product</li> <li>Cradle to Cradle</li> <li>HBN HomeFree</li> <li>Company letter</li> <li><a href="#">Greenhealth Approved</a></li> </ul>	<ul style="list-style-type: none"> <li>Environmental Product Declaration</li> <li>Reclaimed material</li> <li>Biobased material</li> <li>FSC 100%, FSC Mix, or FSC Recycled</li> </ul>	<ul style="list-style-type: none"> <li>JUST Label</li> <li>B Corporation</li> <li>Cradle to Cradle</li> <li>FSC</li> <li>Design for Freedom Toolkit</li> <li>LEED Social Equity in the Supply Chain</li> </ul>	<ul style="list-style-type: none"> <li>FSC 100%, FSC Mix, or FSC Recycled</li> <li>Cradle to Cradle</li> <li>Living Product Challenge</li> <li>Reclaimed material</li> </ul>	<ul style="list-style-type: none"> <li>Cradle to Cradle</li> <li>Reclaimed material</li> <li>Single ingredient materials</li> <li>Deconstructable material</li> <li>Manufacturer with EPR take back programs</li> </ul>

## ZGF's Healthier Materials Rules

Which safer product strategies should be explored on every building project?

<div style="margin-bottom: 10px;"> <p><b>USE LESS STUFF</b> Fewer materials equals fewer products to screen for hazardous ingredients</p> </div> <div style="margin-bottom: 10px;"> <p><b>PREFER NATURAL MATERIALS</b> Mother Nature creates clean, green "products"</p> </div> <div style="margin-bottom: 10px;"> <p><b>PAY ATTENTION TO BINDERS</b> The benefits of using natural materials can be undermined if the glue holding them together isn't safe</p> </div> <div> <p><b>ATTACH MECHANICALLY</b> Adhesive products often contain hazards that can be easily avoided with mechanical attachment systems like nails and screws</p> </div>	<div style="margin-bottom: 10px;"> <p><b>PRONOUNCEABLE INGREDIENTS</b> If a product's ingredient list is hard to read out loud - then don't use it</p> </div> <div style="margin-bottom: 10px;"> <p><b>AVOID PLASTIC</b> Minimize use of plastic materials which may add hazards to built environment</p> </div> <div style="margin-bottom: 10px;"> <p><b>AVOID COMPOSITE MATERIALS</b> Products that fuse disparate types of materials together often contain more hidden hazards than simpler products</p> </div> <div> <p><b>BUY LOCAL</b> Products manufactured in faraway places with less rigorous safety regulations may sneak in hazardous ingredients</p> </div>
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# Acknowledgments

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