M1 Design for Integration (<300 words)

Sustainability is essential to design excellence, and vice versa. Describe the project, program, and any unique challenges and opportunities. Specifically explain how the design is shaped around the project's goals and performance criteria, providing both utility and delight. Give examples of how individual design strategies provide multiple benefits across the full triple bottom line of social, economic, and environmental value.

M2 Design for Community (<200 words)

Sustainability is inextricably tied to the wellness of communities. Describe specifically how community members, inside and outside the building, benefit from the project. How does this project contribute to creating a walkable, human-scaled community inside and outside the property lines? How were community members engaged during the design and development process? How does the project promote social equity at local, regional, and global scales? Because transportation-related emissions negatively affect public health, describe efforts to reduce carbon in the production of the building. (Carbon emissions from operations are included in Measure 6.)

METRICS

Mandatory

Walk Score

Encouraged

- From a survey of building users or other method, estimate percentage of building occupants who commute via alternative transportation (biking, walking, mass transit, etc.)
- Estimate the annual carbon emissions associated with the transportation of those coming to or returning from the building (metric tons/year). Identify which tool was used. (The US EPA provides simplified carbon calculators for homes and businesses.)
    - For comparison, express the estimated carbon emissions associated with operating the building in Measure 6 in the same units here: (metric tons/year).

M3 Design for Ecology (<200 words)

Sustainable design protects and benefits natural ecosystems and habitat in the presence of human development. How does the site relate or respond to the surrounding ecosystem? How does the project contribute to biodiversity and the preservation or restoration of habitats and ecosystem services?

METRICS

Mandatory

- Percentage of the site area designed to support vegetation (landscape or green roof) _____%
- Percentage of site area supporting vegetation before project began _____%
- Percentage of landscaped areas covered by native or climate-appropriate plants supporting native or migratory animals _____%

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M4 Design for Water (<200 words)

Sustainable design conserves and improves the quality of water as a precious resource. Illustrate how various water streams flow through the building and site, including major water conservation and stormwater management strategies. How does the project relate to the regional watershed? Describe strategies to reduce reliance on municipal water sources. Does the project recapture or re-use water?

METRICS

Mandatory

- Predicted annual consumption of potable water (gal) [per resident, per visitor, per FTE, as appropriate], for all uses, including process water.
- Is potable water used for irrigation (after initial plant establishment period)? (Y/N)

Encouraged

- Actual annual consumption of potable water (gal) [per resident, per visitor, per FTE, as appropriate], for all uses
- Is rainwater captured for use by the project? (Y/N) If so, what percentage of water consumed onsite comes from rainwater capture? _____%
- Is greywater or blackwater captured for re-use? (Y/N) If so, what percentage of water consumed onsite comes from greywater/blackwater capture and treatment? _____%
- Percent of rainwater (from maximum anticipated 24-hour, 2-year storm event) that can be managed on site
- Metrics of water quality for any stormwater leaving the site. For example, what is the % of Total Suspended Solids (TSS) removed from stormwater runoff? Refer to the EPA's Guidance Specifying Management Measures for Sources of Non-Point Pollution in Coastal Waters (Chapther 4, table 4-7).

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M5 Design for Economy (<200 words)

Providing abundance while living within our means is a fundamental challenge of sustainability. How does the project provide "more with less"? Possibilities include "right sizing" the program, cost-effective design decisions, economic performance analysis, economic equity strategies, notable return-on-investment outcomes, contributing to local and disadvantaged economies, etc. Identify any additional first-cost investments and how they are anticipated to improve life-cycle costs and longer-term economic performance.

METRICS

Mandatory

- Cost per square foot

Encouraged

- Comparable cost per square foot for other, similar buildings in the region. List source.
- Alternate unit cost measures: cost per employee [for a workplace], cost per resident [residential projects]), etc.
- Estimated operating cost reduction (identify baseline) (%)
- Life Cycle Analysis of the costs associated with measures taken to improve performance (e.g., energy cost payback, water savings, measured productivity gains)

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M6 Design for Energy (<200 words)

The burning of fossil fuels to provide energy for buildings is a major component of global GHG emissions, driving climate change. Sustainable design conserves energy while improving building performance, function, comfort, and enjoyment. How did analysis of local climate inform the design challenges and opportunities? Describe any energy challenges associated with the building type, intensity of use, or hours of operation, and how the design responds to these challenges. Describe energy-efficient design intent, including passive design strategies and active systems and technologies. How are these strategies evident in the design, not just the systems?

METRICS

Use EPA's Target Finder, AIA's 2030 Commitment Reporting Tool, or the Architecture 2030 Challenge reference materials to provide comparison baselines for energy use and to convert utility-provided energy consumed into equivalent carbon emission impact.

Mandatory

- **Predicted Consumed Energy Use Intensity (Site EUI): kBtu/sf/yr**
  Total energy use by the facility including energy purchased from utilities and provided by on-site renewable sources. If available, provide a breakdown by energy end use (e.g., lighting, heating…) via attachment. (identify which simulation tool was used)
- **Predicted Net EUI** (kBtu/sf/yr) **and Carbon emissions** (lb/sf/yr)
  Net purchased energy use (total energy use, less any energy generated on-site from renewable resources).
- **Predicted Percent Reduction from National Average EUI for Building Type_____%**
- **Predicted Lighting Power Density** (W/sf)

Strongly Encouraged

- **Actual Consumed Energy Use Intensity (Site EUI): kBtu/sf/yr**
  Total energy use by the facility including energy purchased from utilities and provided by on-site renewable sources. If available via sub-metering, provide a breakdown by energy end use (e.g., lighting, heating…) via attachment.
- **Actual Net EUI** (kBtu/sf/yr) **and Carbon emissions** (lb/sf/yr)
  Net purchased energy use (total energy use, less any energy generated on-site from renewable resources).
- **Actual Percent Reduction from National Average EUI for Building Type_____%**

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M7 Design for Wellness (<200 words)

Sustainable design supports comfort, health, and wellness for the people who inhabit or visit buildings. Describe strategies for optimizing daylight, indoor air quality, connections to the outdoors, and thermal, visual, and acoustical comfort for occupants and others inside and outside the building. How does the design promote the health of the occupants? Describe design elements intended to promote activity or exercise, access to healthy food choices, etc. Outline any material health strategies, including any materials selection criteria based on third-party frameworks such as Health Product Declarations (HPDs), Living Building Challenge Red List, EPA chemicals of concern, etc. Include key results on occupant comfort from occupant satisfaction surveys.

METRICS

Mandatory

- (Percentage of floor area or percentage of occupant work stations) with direct views of the outdoors
- (Percentage of floor area or percentage of occupant work stations) within 30' of operable windows
- (Percentage of floor area or percentage of occupant work stations) achieving adequate light levels without the use of artificial lighting, by simulation or by direct measurement of the finished building, at a typical single point in time (>300 lux at 3pm March 21)
- [Workplaces]: How easily can occupants control their own thermal comfort and lighting?
  - How many occupants per thermal zone or thermostat _____
  - Percentage of occupants who can control their own light levels _____%

Encouraged

- Peak measured CO_2 levels during full occupancy (ppm)
- Peak measured VOC levels during full occupancy (ppb)
- Annual daylighting performance (Spatial Daylight Autonomy: % of regularly occupied area achieving at least 300 lux at least 50% of the annual occupied hours)
- Percentage of materials, by value, incorporating health criteria such as HPD or Red List compliances (specify which criteria)

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M8 Design for Resources (<200 words)

Sustainable design includes the informed selection of materials and products to reduce product-cycle environmental impacts while enhancing building performance. Describe efforts to optimize the amount of material used on the project. Outline materials selection criteria and considerations, such as enhancing durability and maintenance and reducing the environmental impacts of extraction, manufacturing, and transportation. Identify any special steps taken during design to make disassembly or re-use easier at the building's end of life. What other factors helped drive decision-making around material selection on this project?

METRICS

Mandatory

- **CO_2 intensity:** Estimated carbon emissions associated with building construction, including the extraction and manufacturing of materials used in construction (lbs CO_2/sf). Specify tool used (simple 1-page tools such as The Construction Carbon Calculator or more comprehensive tools such as Athena, Tally, or other).

Encouraged

- **LCA:** Were other life-cycle assessments (LCAs) conducted? (Y/N) If so, identify tools used and summarize results.
- **EPD:** Were environmental product declarations (EPDs) collected? (Y/N) If so, summarize results.
- Percentage (by weight) of construction waste diverted from landfill
- Percentage of materials reused from existing buildings or other local sources (identify appropriate metric—weight, volume, cost)
- Percentage of recycled content of building materials (by cost)
- Percentage (by cost) of the project materials extracted and manufactured regionally (specify distance).
- Percentage (by cost) of materials used with comprehensive third party certifications (e.g. Declare, Cradle to Cradle—specify which system).

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M9 Design for Change (<200 words)

Reuse, adaptability, and resilience are essential to sustainable design, which seeks to maintain and enhance usability, functionality, and value over time. Describe how the project is designed to facilitate adaptation for other uses and/or how an existing building was repurposed. What other uses could this building easily accommodate in 50-100 years? In what ways did the design process take into account climate change over the life of the building? Describe the project's resilience measures: How does the design anticipate restoring or adapting function in the face of stress or shock, such as natural disasters, blackouts, etc.? How does the project address passive survivability (providing habitable conditions in case of loss of utility power)?

METRICS

Mandatory

- Percentage of project floor area, if any, that represents adapting existing buildings
- Anticipated number of days the project can maintain function without utility power

Encouraged

- Percentage of power needs supportable by onsite power generation
- Carbon emissions saved through adaptive reuse vs new construction (provide calculations and source)
- LEED Resilience Pilot Credit or other resilience rating system metrics (e.g., RELi)

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.

M10 Design for Discovery (<200 words)

Sustainable design strategies and best practices evolve over time through documented performance and shared knowledge of lessons learned. What lessons for better design have been learned through the process of project design, construction, and occupancy, and how have these been incorporated in subsequent projects? Describe ways the lessons have been shared with a larger audience (publications, lectures, etc.) and any ways the project may have influenced industry practices. Describe the processes used to maintain a long-term relationship between the design team and those occupying and operating the building and identify how both the users and designers benefited.

Projects with exemplary actual performance and post-occupancy information will be highlighted among the award recipients.

METRICS

Mandatory

- Has a post-occupancy evaluation, including surveys of occupant comfort, been performed? (Y/N)
- If so, summarize results.

Please explain if a mandatory metric is unavailable or a metric requires additional interpretive information.