

**AIA**  
**COTE Top Ten**

**AIA COTE Top 10  
for Students  
Competition**

**AIA Framework for Design  
Excellence**

The Framework represents the defining principles of good design in the twenty-first century. Comprised of a series of **ten value statements** and accompanied by questions that challenge the designer, it informs progress toward a **zero-carbon, equitable, resilient, and healthy** built environment...It is intended to be **accessible** and **relevant** for every architect, every client, and every project, regardless of size, typology, or aspiration.

**TOGETHER  
WE ARE  
DESIGNING A  
SUSTAINABLE,  
HEALTHY,  
EQUITABLE  
WORLD**



**AIA**

# THE FRAMEWORK FOR DESIGN EXCELLENCE: TEN QUESTIONS

The AIA Framework for Design Excellence can be expressed as a set of questions to ask yourself throughout the design process:

## 1: Design for Integration

What is the big idea behind this project? What is its purpose?  
How do the separate pieces fit together into a coherent whole?

## 2: Design for Equitable Community

Who gets to use this building and how does it benefit its users and its community? How has the community been engaged to shape the design? Who is invited in, who is excluded? How does this project's location and design promote equitable access to its benefits, strengthen its community, and reinforce means of transportation that support health and reduce emissions?

## 3: Design for Ecosystems

How does this project benefit the earth? How does it impact the living systems around it?

## 4: Design for Water

How does this project work with and delight in water, and how does it use water wisely?

## 5: Design for Economy

How do you provide abundance with an economy of means?

## **6: Design for Energy**

How does the design work with, rather than fight, local climate to provide a comfortable place for people with the least energy use and carbon emissions?

## **7: Design for Well-Being**

How does the design promote the health of those who spend time in it?

## **8: Design for Resources**

Why did you select the materials you did? Where do they come from, what's their impact (including the pollution and carbon impact of their manufacture), and where will they go after the building is gone?

## **9: Design for Change**

How is the project designed for a long life, yet with a 'loose fit' that allows it to be adapted to changing needs?  
How does the design anticipate a changing climate and recovery after disaster? How does it build social, economic, and community resilience in the face of climate change and natural disasters?

## **10: Design for Discovery**

How does your design allow the building to learn from its users, and allow its users to learn from the building?  
What lessons have you learned from the project? Where have you fallen short? What will you carry forward?





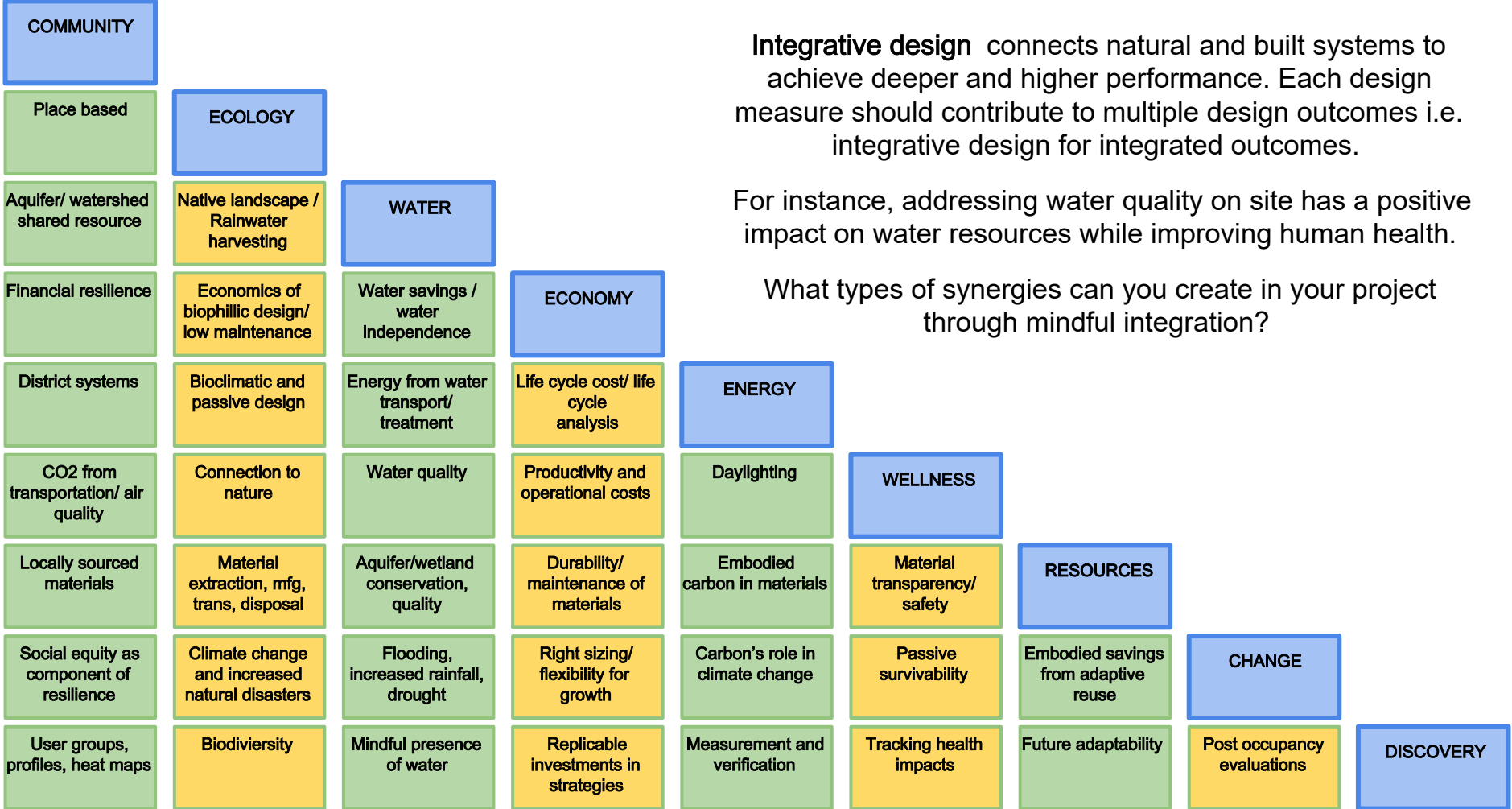
Ford Foundation Center for Social Justice / Gensler



# Design for Integration

Good design elevates any project, no matter how small, with a thoughtful process that delivers both beauty and function in balance. It is the element that binds all the principles together with a big idea.

- *What is the concept or purpose behind this project, and how will the priorities within the nine other measures inform the unique approach to this project?*
- *How will the project engage the senses and connect people to place?*
- *What design strategies can provide multiple benefits across the triple bottom line (of social, economic, and environmental value)?*





# Design for Integration



## Sample Strategies

Incorporate lessons from other disciplines—such as psychology, anthropology, and neuroscience—to appeal to universal biological proclivities and culturally specific values.

Diagram the relationship between the design concept and how sustainability measures are integrated and complementary to the project's goals for beautiful design.

**Narrative:** Describe how sustainability strategies are incorporated into the overall design. What are the major environmental issues and goals? How does the building respond to the local climate, site and occupant comfort?

**Suggested Graphics:** Building section, or other appropriate diagram, that demonstrates bioclimatic strategies and concepts. A profile of local climate that illustrates appropriate design strategies, or summary sustainability diagram (for building operations)

**Metric:** Percent of the year that occupants will be comfortable using passive systems



The Six / Brooks Scarpa



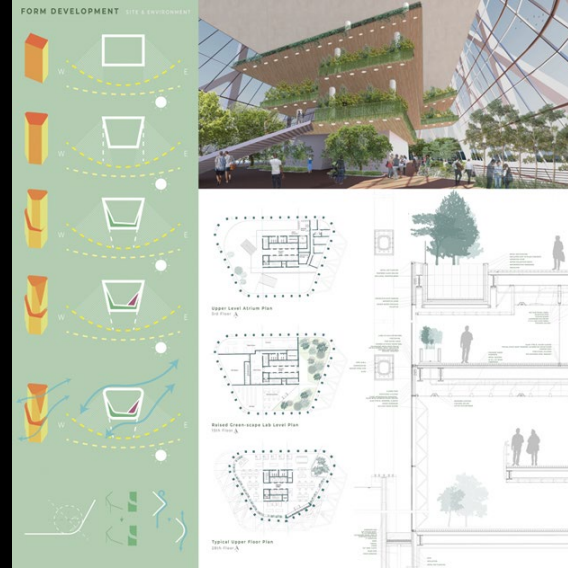
# Design for Equitable Communities

Design solutions affect more than the client and current occupants. Good design positively impacts future occupants and the larger community.

- *What is the project's greater reach? How could this project contribute to creating a diverse walkable (accessible), human-scaled community?*
- *Who might this project be forgetting? How can the design process and outcome remove barriers and promote inclusion and social equity particularly engaging vulnerable communities?*
- *How can the design support healthy and resilience for the community during times of need? / during times of emergencies?*



# Design for Equitable Communities



## Sample Strategies

Seek creative strategies to promote alternative transportation and decrease dependence on single-occupancy vehicles.

Identify your community and work with them to define shared goals.

Go out of your way to make the project accessible to someone who might not have otherwise benefited from it.

**Narrative:** How does the design respond to the region where it's located? How does the design promote regional and community connectivity? What steps are taken to encourage alternative transportation?

**Graphic:** Open

**Metric:** Walk score: (from Walkscore.com) and/or urban networks diagram (walk, transport, etc.)





Land Port of Entry, Columbus, New Mexico/ Ritcher Architects



# Design for Ecosystems

Good design mutually benefits human and nonhuman inhabitants.

- *How can the design support the ecological health of its place over time?*
- *How can the design help users become more aware and connected with the project's place and regional ecosystem?*
- *How is the project supporting regional habitat restoration?*



# Design for Ecosystems



## Sample Strategies

Develop a project-specific indexing framework that assesses attributes of the surrounding pre-development, quantitatively and qualitatively.

Design landscaping composed of 100 percent native plantings, especially species that attract pollinators. Avoid all decorative turf grass.

Integrate bird collision deterrent design strategies.

Create natural nighttime habitat conditions by eliminating unnecessary artificial light and sounds while no humans are present.

**Narrative:** How does the development of the site respond to its ecological context? Consider water, air, plants, and animals at different scales.

**Suggested Graphic:** Natural systems diagram (on-site, context) and/or Native Landscape Profile (flora, fauna)

**Metric:** % site area designed to support vegetation





Austin Central Library / LakelFlato + Shepley Bulfinch Joint Venture



# Design for Water

Good design conserves and improves the quality of water as a precious resource.

- *How does the project use water wisely, addressing efficiency and consumption while matching water quality to appropriate use?*
- *How can the project's water systems maintain function during emergencies or disruptions?*
- *How does the project handle rainfall and stormwater responsibly?*



# Design for Water



## Sample Strategies

Benchmark indoor water use and compare this number to anticipated use.

Reduce or eliminate outdoor water use (Irrigation Reduction/Elimination).

Manage stormwater runoff with the goals of increasing on-site infiltration and improving water quality downstream.

Capture and reuse rainwater on-site (stretch goal).

**Narrative:** How does the design manage stormwater? How does the design conserve potable water? How is the project innovative in the way that it uses and treats water?

**Suggested Graphic:** Diagram representing how water arrives onto the site, how it is used or reclaimed, and how it leaves the site.

**Metric:** Percent of storm water that is managed onsite: (2 year, 24-hour event. Use supplied spreadsheet to calculate)



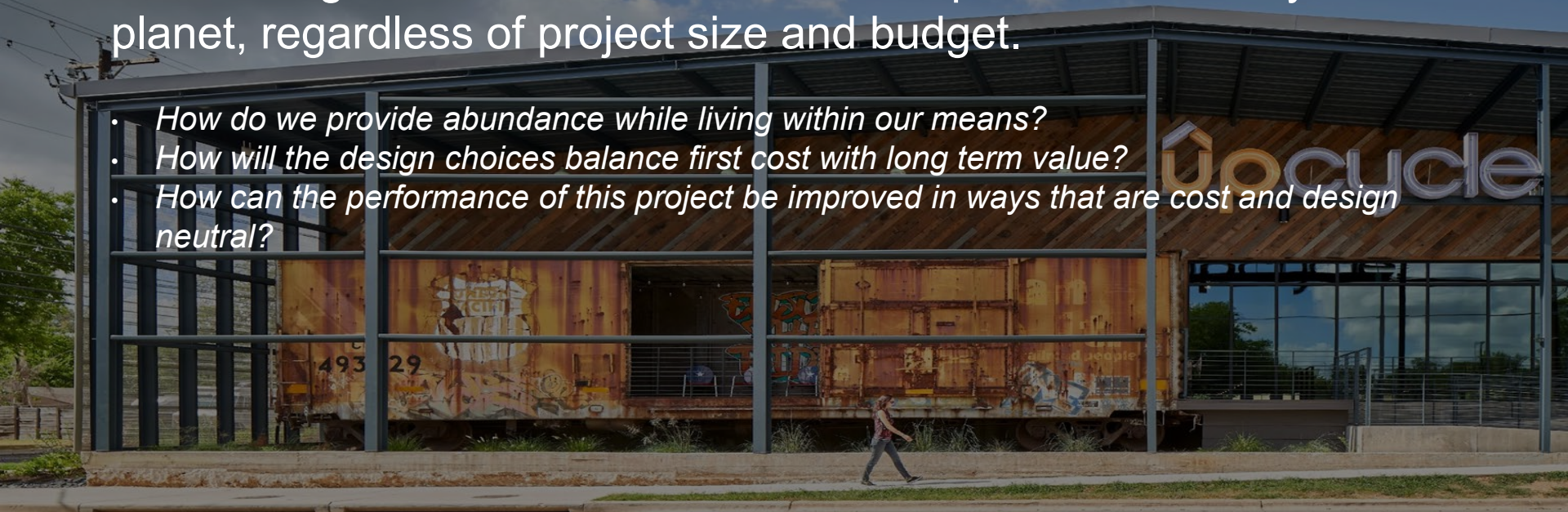
upcycle



# Design for Economy

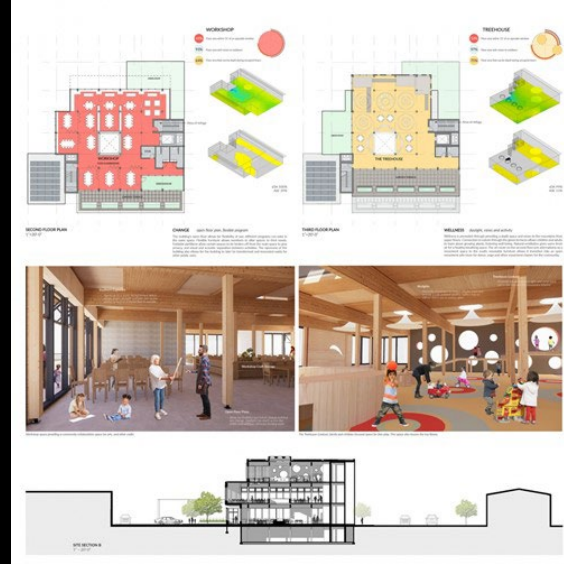
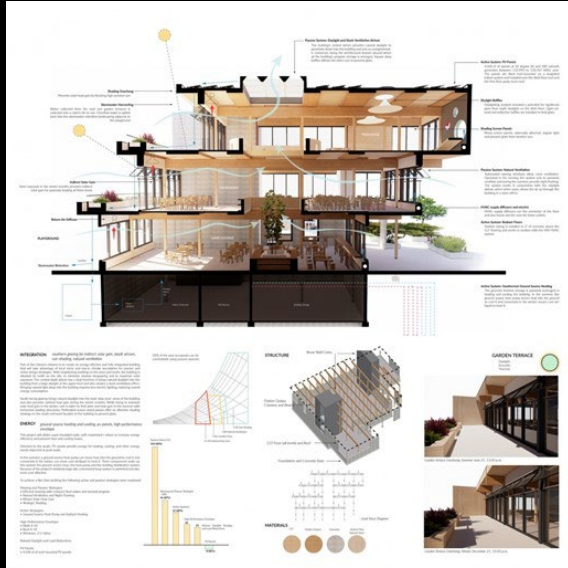
Good design adds value for owners, occupants, community, and planet, regardless of project size and budget.

- *How do we provide abundance while living within our means?*
- *How will the design choices balance first cost with long term value?*
- *How can the performance of this project be improved in ways that are cost and design neutral?*





# Design for Economy



## Sample Strategies

Reuse an existing building if possible.

Rightsize the program early and keep the square footage as efficient as possible while managing design for change.

Edit your palette: Keep the total number of materials to a minimum.

**Narrative:** What do you think your project might cost to build? How would this construction cost compare with ‘typical’ buildings of the same building type? How does your design represent true economy by providing more value for what it costs?

**Suggested Graphic:** Lifecycle cost or value diagram

**Metric:** None





# Design for Energy

Good design reduces energy use and eliminates dependence on fossil fuels while improving building performance, function, comfort, and enjoyment.

- *How can passive design strategies contribute to the project's performance and form?*
- *How can the project exceed building code efficiency standards to approach net-zero energy and net zero carbon?*
- *Can the project be powered by clean, renewable energy sources?*

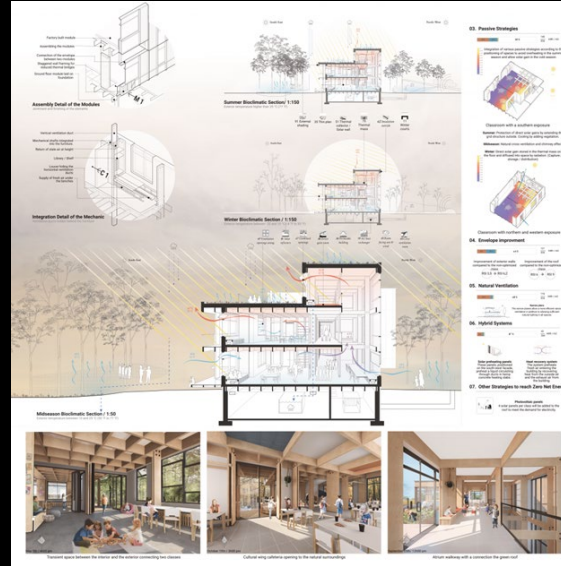
# Design for Energy



**Narrative:** How does the design seek to decrease the total energy use and carbon footprint of the building? Emphasize strategies to reduce heating and cooling loads, reduce electricity demand, reduce plug loads, and generate on-site carbon-free energy. Describe your approach towards achieving carbon neutrality.

**Graphic:** Open

**Metric:** Total energy use intensity (EUI); Energy generation (renewables); Net EUI



## Sample Strategies

Benchmark and set an Energy Use Intensity (EUI) goal.

Establish design benchmarks and targets for Lighting Power Density (LPD), Window-to-Wall Ratio (WWR), and plug loads.

Select climate and program-appropriate passive strategies.

Model for energy performance.

Understand and work with behavioral patterns (automated v. manual window shades).

Conduct a post-occupancy evaluation and commission.

Design solar-ready buildings.







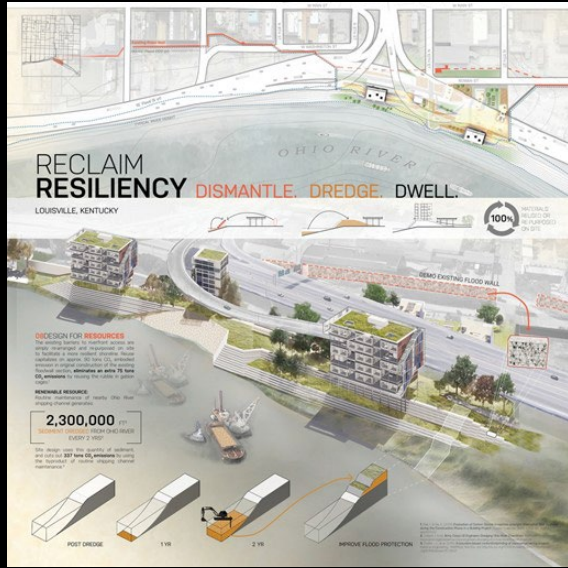
# Design for Well-Being

Good design supports health and wellbeing for all people, considering physical, mental, and emotional effects on building occupants and the surrounding community.

- *How can the design encourage a healthy lifestyle?*
- *How can the project be welcoming and inclusive for all?*
- *How can the project connect people with place with nature?*



# Design for Well-Being



## Sample Strategies

Ensure that all occupied spaces have access to an operable window.

Give all occupants individual control over their immediate environment.

Allow occupants to experience natural, biophilic elements through a variety of senses.

Develop acoustical goals and a plan for achieving them.

**Narrative:** Discuss design strategies for optimizing daylight, indoor air quality, connections to the outdoors, and thermal, visual, and acoustical comfort.

**Suggested Graphic:** Model photos, drawings or diagrams of daylight and ventilation strategies; test models.

**Metric:** Percent of the building that can be daylit (only) during occupied hours; Percent of floor area with views to the outdoors; Percent of floor area within 15 ft. of an operable window.



Keller Center - Harris School of Public Policy/ Farr Associates + Woodhouse Tinucci Architects

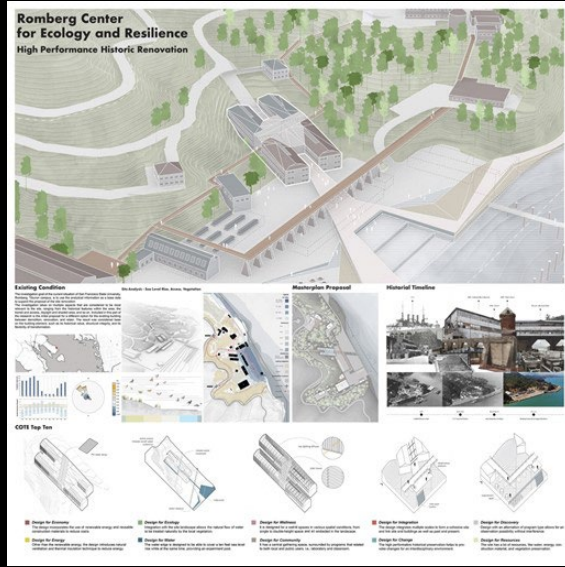


# Design for Resources

Good design depends on informed material selection, balancing priorities to achieve durable, safe and healthy projects with an equitable supply chain and the and to minimize possible negative impacts to the planet.

- *What factors (priorities) will be considered in making material selection decisions?*
- *How are materials and products selected and designed to reduce embodied carbon and environmental impacts while enhancing building performance?*
- *How does the project promote zero waste throughout its lifecycle?*

# Design for Resources



## Sample Strategies

Choose one or a few chemicals of concern, such as vinyl, to avoid in the project's materials.

Choose building products that are known to be low carbon, such as wood and other natural materials.

Specify concrete mixes with high percentages of supplementary cementitious materials (SCM) in order to minimize high-embodied carbon Portland Cement.

Use only FSC-certified lumber

**Narrative:** Describe the project's construction, material selection criteria, considerations and constraints. What efforts were made to reduce the amount of material used and waste and the environmental impact of materials over their lifetime? Discuss specific materials used.

**Suggested Graphic:** Wall section of the building envelope design and either a hygro-thermal analysis or life cycle assessment.

**Metric:** Estimated carbon emissions associated with building construction





Marine Education Center at the Gulf Coast Research Laboratory / Lake|Flato Architects in association with unabridged Architecture



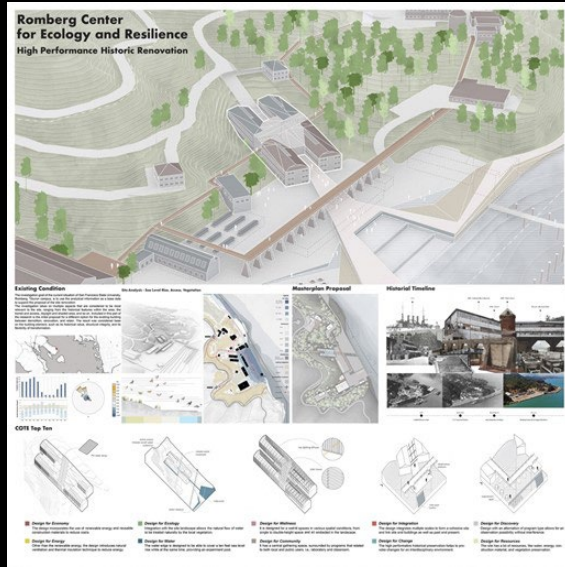
# Design for Change

Adaptability, resilience, and reuse are essential to good design, which seeks to enhance usability, functionality, and value over time.

- *How does the project address future risks and vulnerabilities from social, economic and environmental change?*
- *How is the project designed for adaptation to anticipate future uses or changing markets?*
- *How does the project address passive survivability and/or livability?*



# Design for Change



## Sample Strategies

Assess the probability and type of hazards over the service life of the building and evaluate the consequences of building at a specific site.

Determine how projects can support immediate recovery in the first days and weeks of crisis and facilitate long-term return to normalcy.

**Narrative:** Describe how the design promotes long-term flexibility, re-use, adaptability, and resilience.

**Suggested Graphic:** Specific hazard and climate analysis for project.

**Metric:** None

Talk to clients about their performance goals for the project during a disaster event—continuity of operations, community resources, quick recovery, or temporary relocation?





Environmental Nature Center and Preschool / LPA, Inc.

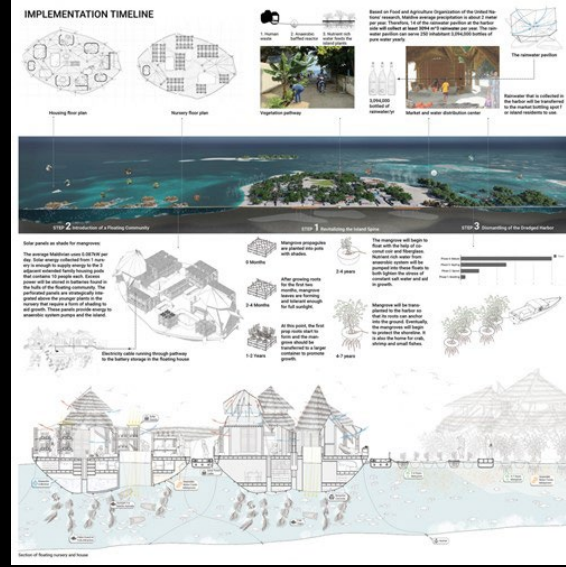
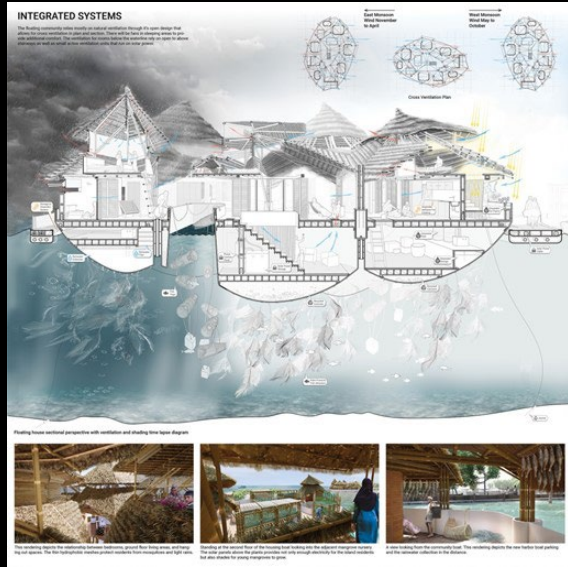


# Design for Discovery

Every project presents a unique opportunity to apply lessons learned from previous projects, and to gather information to refine the design process.

- *How can the design process foster a long-term relationship among between designers, users and operators to ensure design intentions are realized and the building project performance can improve over time?*
- *How are performance data and experiential stories shared, even if the findings fall short of the vision?*
- *What strategies promote a sense of discovery and delight?*

# Design for Discovery



## Sample Strategies

Ask for utility bills and calculate actual measured EUI.

Call the owner and ask for feedback (preferably every other month after occupancy and at least once after one year).

Share mistakes and the strategies for fixing them with ... everyone. (This could be the project team, the office, or the profession at the local, regional, or national level—or even internationally, if significant.)

**Narrative:** What steps would you take to ensure that the building performs the way that it is designed? What lessons have you learned from this project that you will apply to the next project? What lessons have you learned from past projects that were applied to this project?

**Suggested Graphic:** Open

**Metric:** None



# How to use the Framework

To begin integrating the ten values of the Framework into your work, AIA National provides an online resource that goes into detail for each principle.

> [aia.org/design-excellence](https://aia.org/design-excellence)

## Framework for Design Excellence

Inspiring sustainable, resilient, and inclusive design



Design is not just about aesthetic components, but how buildings perform for people. The Framework for Design Excellence is made up of 10 measures, formerly known as the COTE Top Ten. It organizes our thinking, facilitates conversations with our clients and the communities we serve, and sets meaningful goals and targets for climate action.

The tiles below provide an in-depth exploration of each measure, including best practices, high impact strategies, resources, and case studies that promote climate action.



### Designing for Integration

What is the big idea behind this project—and how did the approach toward sustainability inform the design concept?



### Designing for Equitable Communities

How does this project contribute to creating a walkable, human-scaled community inside and outside the



### Designing for Ecology

In what ways does the design respond to the ecology of this place?

# Studio Guide & Resources

The *Studio Guide* offers supplemental resources to faculty and students who are pursuing the AIA COTE Top Ten for Students Competition through a design studio curriculum.

It suggests discussion questions, readings, and exercises to spur design thinking and analysis.

[www.acsa-arch.org/competitions/2021-cote-competition/studio-guide/](http://www.acsa-arch.org/competitions/2021-cote-competition/studio-guide/)

## THE FRAMEWORK FOR DESIGN EXCELLENCE: Ten Questions

### SUGGESTED SEQUENCE FOR DESIGN STUDIOS

- Theory of Sustainable Design
- The Site – People, Place, Environmental Justice, and Ecology
- The Project – Program, Precedent and Getting Started
- Analysis Tools and Representation

## CRITERIA AND REVIEW CHECKLIST





REGISTRATION / SUBMITTAL STEPS

# How and When to Enter AIA COTE Top 10 for Students Competition

## Where?

ACSA Manages the AIA COTE Top Ten for Students Competition in their [Competitions webpage](#)

## When?

Registration is encouraged at the start of the studio term, but can be changed, edited, and amended until a student begins their final submission. **Students may submit entries year round, with each submittal year ending on the summer solstice.**

## How?

*Before* submittals **faculty must register students** and create teams via the registration link.

## Timeline

<b>September</b>	Registrations/Competition opens
<b>June</b>	Registrations/Submittals due
<b>July</b>	Jury convenes
<b>September</b>	Winners announced
<b>May/June</b>	AIA National Conference



# PAST WINNERS ILLUSTRATION ACKNOWLEDGEMENTS:

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