PROGRAM FOR SOCIAL AND ENVIRONMENTAL HEALTH

PURPOSE: The categories laid out in this document are derived and expanded from the three important frameworks that inform our work every day:

The AIA Framework for Design Excellence[1]
The US Architects Declare Commitment[2]
Duvall Decker's Foundations,[3] (experience, and community commitment)

They collectively offer a programmatic framework for each project to help

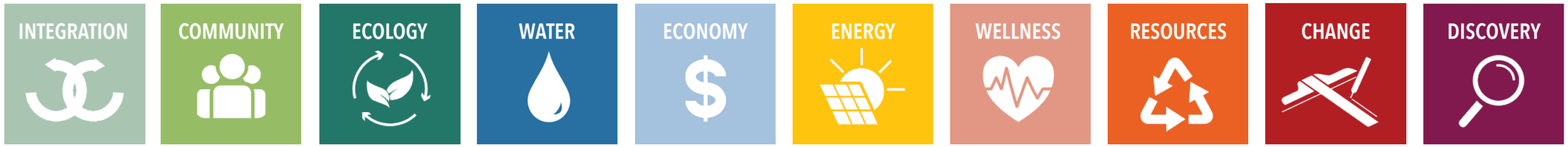
DESIGN EXCELLENCE CATEGORY

LEGEND

Duvall Decker Baseline – As a matter of everyday practice all Duvall Decker projects strive to be socially and environmentally healthy. Bullet points and categories in ***black*** are measures that the firm works for on ALL PROJECTS as a bare minimum. These items not only comply with applicable codes and regulations but establish a baseline for our approach to comprehensive performance as design excellence.

Project Baseline – These are additional goals for each project that go above and beyond our baseline in each category. They are made possible by client and community aspirations and/or needs. They are made possible by will and available resources to strive for an even more mature and responsible project.

Aspirational Strategies – Additional goals for each project that go above and beyond the project baseline are shown in ***gray***. These are measures that could be achieved for long-term social and environmental health including economic goals for the betterment of society and the planet. These may be strategies that the project team decides to pursue or that they plan for in the event that they may not currently be financially feasible.



1. American Institute of Architects. (2020). *Framework for Design Excellence*. https://www.aia.org
2. Architects Declare (2019). *UK Architects Declare Climate and Biodiversity Emergency*. https://www.architectsdeclare.com
3. Duvall Decker Architects, P.A. (2020). *Duvall Decker Foundations*. https://www.duvalldecker.com/the-foundations/

AIA Framework for Design Excellence

"The world today is facing broad and complex challenges that threaten every aspect of our lives. The architect's call to protect the health, safety, and welfare of the public has a new and broader meaning amid challenges such as increasing climate extremes and social inequity. Architects everywhere must recognize that our profession can harness the power of design to contribute to solutions addressing the most significant needs of our time. Every project can be used as a platform for addressing big problems and providing creative solutions. Every line drawn should be a source of good in the world. The Framework for Design Excellence represents the defining principles of good design in the 21st century. Comprised of 10 principles and accompanied by searching questions, the Framework seeks to inform progress toward a zero carbon, equitable, resilient, and healthy built environment. These are to be thoughtfully considered by designer and client at the initiation of every project and incorporated into the work as appropriate to the project scope. The Framework is intended to be accessible and relevant for every architect, every client, and every project, regardless of size, typology, or aspiration. The Framework for Design Excellence challenges architects with a vision of what the profession strives to achieve, the toolkit provides practical resources to help all architects achieve the vision."

US Architects Declare

The interlinked crises of climate breakdown, biodiversity loss, and societal inequity are the most serious issues of our time. Buildings and construction play a major part, accounting for nearly 40% of energy-related carbon dioxide (C02) emissions while also having a significant impact on deforestation, habitat destruction, and species extinction.

Meeting the needs of our society without breaching the earth's ecological boundaries demands a paradigm shift in our behavior in the building sector. Together with our clients and collaborators, we must design buildings, cities, and infrastructures as indivisible components of a larger, constantly regenerating, and self-sustaining system.

The knowledge exists to begin that transformation now, but what has been lacking is collective will. As a sector, we must work together to reshape our approach to architecture and urbanism at the speed and scale the crises demand.

We commit to:

- Raise awareness of the climate and biodiversity emergencies and the urgent need for action among our clients, collaborators, and supply chains. Advocate for the rapid systemic changes required to address the climate and biodiversity crises, as well as the policies, funding priorities, and implementation frameworks that support these changes.

- Act to address the disproportionate impact of these crises on disadvantaged communities and ensure that all mitigation and adaptation efforts address the needs of all people. Employ just labor practices, so that people of all backgrounds can participate in decision-making about the future of the designed environment.

- Include life cycle costing, whole life carbon modeling, and post-occupancy evaluation as part of our basic scope of work, to reduce both embodied and operational resource use. Adopt regenerative design principles.

- Upgrade existing buildings for extended use as a less carbon intensive alternative to demolition and new construction whenever there is a viable choice.

- Advocate for detailed disclosure of material provenance and environmental impact by extractors, manufacturers, and distributors, to accelerate the shift to low-carbon, non-toxic, and ethically produced materials. Eliminate waste and support a rapid transition to circular economies.

- Invest in research and technology development, guided by systems thinking, to further these goals, and share tools, data, and strategies on an open-source basis.

- Establish climate change mitigation, biodiversity protection, and positive social impact as the key measures of our sector's success. Work to redirect the mentality of the building sector away from maximizing short-term returns toward durable investment for the long term. Set clearly articulated climate mitigation goals for every project and communicate them to our clients. Change the structure of awards programs to make these criteria the basis for recognition in architecture.

Duvall Decker and Design Excellence

Design excellence = Comprehensive Performance for a Healthier Society and Environment

We believe architecture is more than shelter for a group of functions. While architects are responsible to a client's program, budget, and schedule, these are merely the technical rudiments of building. If a work is to be architecture - if it is to last and foster critical, educational, or therapeutic public experiences - it must go far beyond shelter and offer more than a sign of status or be an object of spectacle. It must be inspirational, achieve comprehensive performance; help make a healthier society and environment and be a meaningful contribution to its community's story.

Design leadership is the imaginative work to guide the team - owner, architect, special consultants, governing agencies, and public - through a design conversation that leads to more than a functional solution. We strive for a project that serves its purpose, its community, that is equitable, durable, maintainable, sustainable, energy efficient, and a low consumer of resources. We strive for a project that reduces carbon dioxide (C02) emissions and preserves and expand natural habitats. We strive for buildings that are educational, inspirational, flexible for long-term use, economical in operation, and easily maintained.

We strive for buildings and sites that connect to users, visitors, and communities in meaningful ways. We strive for buildings that we want to be in and around, that provide purpose and joy.

DESIGN FOR INTEGRATION

Ideas - Never proceed without an idea. Architectural ideas are larger and more encompassing than the program or site. They entangle us first in questions of nature and culture, then gravity, light, materials, labor and use. A formal idea attempts to make the ideal present in the real, the abstract in the concrete. The ideas reduce the infinite possibilities to a manageable few. Ideas should be large enough to envelope the process, owner, staff and contractor and remain strong through the tedious and complicated phases of the project. Architectural ideas become embodied in the work and in turn become teachers in the community of experience.

Integrated Process – Utilize an agile management structure to ensure the design, community stakeholders and client teams evolve the design together in a process that builds on its experience, research, and achievements. The process promotes collaborative openness at each phase of work, leading to work products that describe the scope and document the information critical for the success of the project. At each phase, the work products are evaluated by every team member and stakeholder, adjusted, and compiled as the basis of project criteria for the next phase.

Clear Communication – The most important skill of collaborative work is communication. Communication has many forms – all are important. Clear communication of the shared direction for the project with the Owner and all Stakeholders is critical.

Context – Concept – Content – Seek to understand and take full advantage of the building, site, and program to create a comprehensive design concept that drives the project and stems from a synthesis of client needs and vision, program, and the project's social, environmental, historic, and economic contexts.

Practice Critically at All Levels – Challenge the simplistic, nominal and conceptual bias common in our time. Cross boundaries. Create surprise, joy, wonder, and desire. Build resistance to the endless structures of authority and instruction we live within. Empower the possibilities of individual growth through plural network structures of experience for all.

Build on Experience. Limit the palette (ideas, materials, and products) to allow depth and greater performance over time. We build our work through repetitive refinement of ideas, materials, and assemblies – avoiding novelty for its own sake. Each time we re-make a detail with more refined knowledge, we increase our understanding of its make-up and performance. Let the work raise questions. They are the tools of design research.

Meaning is established first in the architecture of visceral presences, material, light, scale, and human posture. Use, stories, relationships, and connections can be layered on top of this spatial-haptic foundation. Feeling first, then language. Form: shape and structure first, then content.

DESIGN FOR COMMUNITY

Listening and Research - Effective planning begins with a commitment to listening and research. Communities have origins, stories, and connections to family, institutions, the land, and the weather. They function or fail in a particular economy. They are complex organisms made up of both private and public human transactions. The quality of a community is measured by its residents' well-being and sense of belonging, in their pride and legacy, and in their sense of security and opportunity for growth.

Triple Bottom Line Value - Each building or intervention fundamentally changes the experience of the city. We must ask: "How does each project help shape the public good? Is it economically viable? Does it contribute to the growth of the micro and macro economies? Will it strengthen and expand meaningful social connections and promote mature diversity and density? Is it ecologically sound and healthy?"

Embodied Loyalties - Public work is the value of architectural form that simultaneously serves and challenges culture. The site of public work is multivalent. At once we owe loyalties to our most intimate relationships, our partners, friends, and family. Then we form space to teach and grow civitas redressing our loyalties to our streets, neighborhoods, city, and region; then encompassing even larger loyalties of our country, culture, environment, and species.

Public Work - All projects create some form of public space, sit in relationship to a public way, and have a civic duty to their surroundings and occupants – to be welcome, inviting, and accessible to as many different groups as possible. We measure our work on the public effects and benefits in the community – a much larger and truer measure of the value of practice.

Social Equity - Projects must be sensitive to issues of social equity and social justice in their immediate and larger surroundings including the history and context of the site and project type – while seeking to address and integrate solutions to the greatest extent possible. Social justice is defined as a society in which the distribution of resources is equitable, and all members are physically and psychologically safe and secure.

Community Engagement – Identify community stakeholders. Establish methods to engage individuals and groups to help define problems, fully illustrate the context of the project, and provide valuable input toward solutions. Meaningful involvement requires effective access to decision makers for all, and the ability in all communities to make informed decisions and take positive actions to produce environmental justice for themselves. Projects shall work for community partnership and citizen empowerment. (Resource: Arnstein's Ladder of Citizen Participation)

Safety and Access - Provide adequate site lighting and safety through design. All projects comply with the Americans with Disabilities Act and provide accessible features as required by law.

Human Scale Design – Every project is designed at both the scale of the community and the individual – impacting our daily experience. Buildings must maintain diverse, visually interesting environments along all site edges – a building should never turn its back to a community, public corridor, or other space used by community members.

Walkability and Alternative Transportation – Seek creative strategies to promote alternative transportation and decrease the dependence on single occupancy vehicles. Resource: Walk Score Methodology.

DESIGN FOR ECOLOGY

Landscape – Provide landscaping that requires less maintenance and supports local ecology through use of native plantings, especially species that attract pollinators. Use no decorative turf grass.

Heat-Island Reduction – Incorporate trees into all parking areas to reduce the heat island effect. Utilize trees to reduce solar heat gain on all building and site surfaces.

Site Acoustics – Reduce noise pollution and other nuisances from building systems and adjacent sites that may negatively impact local animal habitats.

Biodiversity / Habitat – Seek to understand the local ecology of the site and larger scale natural systems within which the project will exist. Develop design strategies that are sensitive to these systems and engage them in a sustainable way – mitigating negative impacts, celebrating and reinforcing natural systems, and engaging and educating the public.

Dark Skies – Create a nighttime habitat by eliminating artificial light and sounds while no humans are present.

Bird Friendly – Design to eliminate all building-related bird deaths.

DESIGN FOR WATER

Conserve Water - All new plumbing fixtures will be low-flow fixtures.

Outdoor Water Use Reduction – Reduce or eliminate irrigation through planting selection and system design.

Stormwater Management – Efficiently address rainwater runoff and mitigation strategies with the intent to move water away from the building. Develop strategies to contain as much stormwater on site as possible to reduce loads on local drainage systems and the impact of pollutants on local bodies of water.

Foundation water capture – If water is pumped from beneath building foundations, develop strategies for its potential use on site.

Net Zero Water Building (NZWB) – Develop strategies for the building to harvest and filter its own water supply, and potentially supply site features and adjacent sites.

Capture and Reuse Greywater or Blackwater – Capture and reuse rainwater on site to flush toilets, irrigate landscaping, or be filtered into through the landscape for other uses.

DESIGN FOR ECONOMY

Quality requires Economy – Overcoming the fragmentary, additive reality of construction is a difficult and necessary challenge for Architecture. It is important to create forms and systems which have efficient, internal cohesion and integrity which in turn drive design and construction decisions for a better, more economical project.

Building Size – Design the building to make efficient use of space and minimize its physical footprint. Reduce program size or re-use an existing building.

Community Links – Use materials and construction systems that are available and familiar to local contractors and craftspeople. Use materials and construction systems that are extracted and/or produced locally to the project. Train and educate local contractors and laborers for the benefit of the local economy and construction industry, as well as the quality of the local built environment as a whole.

Material Use – Design the building with a limited palette of durable, high quality materials that will improve the building's lifespan. Reduce the scope of finish materials through detailing and design.

Operational Requirements – Design the building's plumbing, mechanical, and electrical systems to be efficient and reduce operational costs.

Maintenance Requirements – Choose durable and easily cleanable materials to reduce the intensity of overall maintenance requirements. Develop construction details for planned long-term maintenance such as removeable trim to facilitate window replacement.

On Time & In Budget – Carefully manage the project's financial, human, and physical resources to keep the project on Time and within Budget.

DESIGN FOR ENERGY

Energy and Social Justice – Plan land use and build social and civic infrastructures that link ethical and equitable practices for clean energy to all communities of care, cultural vitality, and restorative justice.

Passive Design Strategies – Integrate appropriate solar orientation and shading for passive heating and cooling. Engage site wind patterns, building geometry, and operable windows to provide opportunities for passive ventilation. Design an airtight building envelope with ample insulation to minimize heat gain/loss and reduce the size and cost of mechanical systems.

Climate Responsive Design – Optimize the building's envelope for its climate. Develop spatial layout and programming to accommodate regional variations in climate – will the building will have heavy cooling or heating loads, will it have to deal with dry or humid air, or some combination of these conditions?

Project Type Response – Design the building to respond to behavioral patterns specific to the project type that reduce energy use for lighting, heating, and cooling. Explore ways to replace interior, conditioned space with tempered or covered outdoor space.

Education – Utilize the project's sustainable energy systems as an educational tool for the Owner, Building Occupants, and the Community. Seek ways to synthesize the building program with energy systems to design them as teaching tools.

Energy Modeling – Digital models and environmental simulations will be utilized to ensure the building is designed to a high level of performance and as a baseline for analyzing the building in the future.

Energy Benchmarking – Establish design targets to meet Energy Code requirements (LPD, window-wall-ratio, pEUI, etc.) Establish more aggressive targets to meet LEED, Passive House, and other energy reduction measures or exceed existing rating systems.

2030 Challenge - Establish energy efficient goals for Predicted Energy Use (pEUI). Strive to meet the 2030 Challenge and achieve Net Zero Energy Building (NZEB) and Net Zero Carbon Building (NZCB) requirements.

On-Site Renewables – Inclusion of photovoltaics on roof surfaces and across the site may be used to power the building and even contribute back to the grid.

Post-Occupancy Evaluation – Conduct one-year inspection report on behalf of the Owner. Include energy monitoring systems in the design and actively develop a plan for evaluation with the Owner throughout the life of the building.

DESIGN FOR WELLNESS

Healthy Communities - Build healthy communities and promote environmental practices that mitigate and adapt for climate change, conserve resources, avoid toxins, and clean contaminated environments. Ensure meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Diversity - The most sustainable communities are maturely diverse and include people of different race, gender, religion, economic level, and educational achievement while providing equitable access to a variety of housing types, recreation, institutions, services, and jobs.

Quality of Experience – Design the building and site to provide equitable opportunities for movement and access to views of the site. Make connections to the environment, the cycles of the day and year, the weather, and seasonal changes. Provide experiences of natural, biophilic elements through a variety of senses.

Indoor Air Quality – Utilize low- and no-VOC materials to reduce indoor air-pollutants. Provide dehumidification and high-quality, ultraviolet light and particulate air filtration in the HVAC system to eliminate mold and airborne contaminants. Provide walk-off mats at entrances to reduce particulate matter from the outside.

Daylighting and Lighting – Design an integrated lighting system that balances both natural and artificial light to reduce energy use and eliminate glare while providing views to the landscape and effective, high-quality, natural light. Balance the proportion of windows and building depth to ensure that natural light reaches all occupied spaces. Specify energy efficient LED fixtures for all artificial lighting.

Thermal Comfort – Design the thermal envelope to meet applicable International Energy Conservation Code requirements. Ensure that all occupied spaces have access to operable windows and provide opportunities for natural ventilation where appropriate. Shade all glazing from direct sunlight. Design HVAC systems to provide individual control to the greatest extent possible and to prevent any moisture or mold.

Individual Control – Provide occupants with as much individual control over their immediate environment as is feasible.

Movement / Exercise – Design building and site circulation to provide opportunities for exercise.

Reduce noise pollution and other nuisances from building systems and adjacent sites.

Responsive Space Planning – Provide a variety of spatial scenarios appropriate to the program and activities that will take place in the building like open floor plans to encourage socializing, collaboration, and teamwork or options for privacy when needed.

Pandemic-Ready Design – Design spaces for adaptability and operations during a pandemic to facilitate social distancing and sanitation of spaces as necessary. Work with clients to make a plan for these scenarios.

DESIGN FOR RESOURCES

Healthy Materials – Avoid common building materials that off-gas chemical pollutants and contaminate indoor air quality.

Healthy Environment – Choose materials that reduce embodied carbon in buildings and in turn reduce greenhouse gas emissions. Use renewable materials.

Reduce Waste – Plan to recycle and reuse existing structures and materials. Utilize rapid renewable materials.

Construction Waste Diversion – Work to minimize the construction and demolition waste stream from your project. Develop specifications that require reuse and recycling of as much material as possible to reduce construction waste sent to landfills.

Social Equity within the Supply Chain – Develop requirements that incentivize use of locally sourced and supplied materials with preference given to Woman and Minority owned businesses.

Responsible Material Sourcing – Request and track building products used on the project that can provide material transparency documentation and give priority to manufacturers who provide this documentation.

Raw Material Sourcing – Track raw material sourcing and prioritize products that are extracted or sourced in a responsible manner – particularly locally.

Whole Building Life Cycle Analysis (LCA) – Calculate carbon emissions associated with building construction, including the extraction and manufacturing of materials used in construction (lbs CO_2/sf).

On Time & In Budget – Carefully manage the project's financial, human, and physical resources to keep the project on Time and within Budget.

DESIGN FOR CHANGE

Flexibility and Future Adaptability – Integrate flexible spaces into the design that can be utilized or adapted for a variety of activities over time. Minimize permanently constructed partitions to maximize flexibility. Design a modulated structural system and circulation logic to maximize efficiency and flexibility for the future.

Durability and Long-Term Life – Design buildings for long term use and for ease of change. Building infrastructure, foundations, structure, and enclosure can last generations. Building mechanical systems have an approximate 25-year life, building communication and data systems have a short 5-year life. Plan buildings with accessible building systems to facilitate easy and economic upgrades.

Re-use – Before assuming demolition of existing structures, or parts of structures, consider their embodied value and potential adaptation to serve client needs. One of the most sustainable building strategies to reduce carbon (CO_2) in architecture is to reuse an existing building and make it more energy efficient.

Resilience – Design and build structures that have the ability to resist storms and provide shelter. Engage stakeholders and the community to determine how the project can support operations, neighborhood cohesion, and community members in times of crisis.

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

Changing Climate – Identify climate change risks and develop strategies can protect people and structures from damage or failure.

DESIGN FOR DISCOVERY

Servant Leader – An architect is a servant leader, which for us has come to mean, a teacher. It is important to reveal the public good when others cannot see it, explain the value of durability when the prevailing interest is superficiality, and strive for seriousness in a time of triviality. A teacher leads and promotes equity, civility, and social and environmental health.

Promote Inquiry – Architecture has a consistent and pervasive impact on our lives. We strive to create spaces which raise questions and awaken us to experience by inviting inductive discoveries. We learn who we have been, who we are, and who we stive to be from and in the experience of sites and buildings. We strive for form that is instructive, educational, and inspiring.

Linking Design Research with Experience – We strive to increase our knowledge and skill to build well with building assemblies and details that link design and construction with the meaning of a place. The material culture of a place is part of its character and part of its story.

Teach Craft – We believe it is the architect's responsibility to teach craft, even if from secondhand knowledge, it is an investment in the skill of the builders. As they work to achieve quality in their work, it gives them more power and value.

Storytelling and History - Consider a building or site's history and how it might be engaged, celebrated, and expressed in the design to build generational continuity to preserve and extend a community's stories.

Owner Education – Require owner-training and orientation to the building's systems during closeout through the Contract for Construction. Educate the owner on their role in the building's performance and how to maximize efficiency and reduce energy use and costs.

Post Occupancy Engagement – Conduct a one-year post-occupancy inspection. Engage the Owner long-term to evaluate the building's performance in relation to the design intent over time.

Post-Occupancy Metrics – Request and analyze utility bills and to calculate actual and measured EUI. Specify digital, wifi-enabled metering devices for things like water and electricity to enable long-term analysis and provide the client with a means to measure how they use their buildings.

PROGRAM FOR SOCIAL AND ENVIRONMENTAL HEALTH

ASPIRATIONS FOR A BETTER FUTURE

PROJECT BASELINE

	Healthier, more walkable community Stregnthen Community Identity, Resilience, and Growth	Strong, long-term ecological diversity and resilient natural systems and habitats	Provide sustainable water resources to the surrounding community	Local Economic Growth Create Local Jobs	Develop sustainable energy resources for the community Solar farm / contribute back to the grid	Improved community-wide health outcomes Reduce rates of obesity, diabetes, and other preventable diseases	Smaller carbon footprint for the entire community	Project - specific statement.	Project-specific statement.
Design with Meaning	Human-Scale Design			Program Efficiency		Pandemic-Ready			
Build on Experience	Safety and Accessibility			Minimize Bldg Footprint	One-Year Inspection	Responsive Space-Planning			
Practice Critically	Design with Social Equity			Community Links	Energy Benchmarking	Noise Reduction			
Context Research	Value in Public Work	Site Acoustics		Limited Palette	All LED Lighting	Max. Individual Control			
Clear Communication	Embodied Loyalties	Heat-Island Reduction	Stormwater Management	Durable Materials	Integration of Daylighting	Thermal Comfort			
Integrated Process	Triple Bottom Line	Native Landscaping	Reduce Outdoor Water Use	Design with the Market	Project Type Response	Optimize Daylighting			Owner Training / Teaching
Design with Ideas	Listen and Research	Preserve Existing Trees	Indoor Water Efficiency	Design for Operation	Climate Responsive Design	Indoor Air Quality			Contractor Teaching
				Design for Maintenenance	Passive Design	Design for Experience	Reduce Waste	Adaptable for Future Use	Knowledge Sharing
				On Time & In Budget	Energy & Social Justice	Design for Diversity	Social Equity in Supply Chain	Flexible Space Planning	Promote Inquiry
MINIMUM STANDARD	**INTEGRATION**	**COMMUNITY**	**ECOLOGY**	**WATER**	**ECONOMY**	**ENERGY**	**WELLNESS**	**RESOURCES**	**CHANGE**	**DISCOVERY**