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Higher Impact Transformative Grant Application Summary

In December 2022, MTC and BAHFA, in partnership with Turner Housing Innovation Labs and the Housing Accelerator Fund, submitted a REAP 2.0 Higher Impact Transformative Allocation application to the California Department of Housing and Community Development. The application requests \$10 million in competitive funding to implement two main actions: 1) create a “Bay Area Builders Lab”, a new construction technology incubator created and operated by Turner; and 2) establish the “Industrialized Construction Catalyst Fund” (ICCF), a revolving fund managed by the HAF that is designed to facilitate location-efficient, off-site affordable housing production.

The Builders Lab proposal is summarized as follows:

Principal Goals:

- Lower the barriers to entry for new companies.
- De-risk iterative refinement of design and construction innovation, which will reduce the time it takes for new initiatives to reach the market.
- Increase the financial and market feasibility of new construction and retrofits of existing structures.
- Concentrate on transit-oriented, infill housing, with VMT reduction as an ongoing objective.

Components of the Builders Lab shall include:

- Development of the physical innovation space (the primary channel of investment) with a wide range of machines that can support rapid, iterative prototyping of products and processes for housing production. Turner has identified a potential physical space for the lab in the City of Alameda.
- Connections to coaching across a range of disciplines relevant to the housing industry, including design and engineering, technology innovation, real estate development and finance, and housing policy. This includes researchers at UC Berkeley in civil and

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environmental engineering, architecture, mechanical and industrial engineering, and other disciplines, as well as scientists at Lawrence Berkeley National Labs conducting sustainability and building science research.

- Access to product testing capabilities through UC Berkeley and Lawrence Berkeley National Labs. This includes facilities and machines to measure the performance of structural systems (especially for seismic safety), fire resilience, and thermal performance (i.e., energy efficiency), as well as other relevant metrics for new building materials and products.
- Guidance and potential partnership pathways to key industry players, nonprofits, community organizations, and local governments willing to support pilot projects, especially in disadvantaged and historically underserved communities.
- Close ties with impact-driven investors and other capital sources in the Bay Area with directed opportunities for follow-on funding.
- Access to and integration with workforce development programming to guide the training of the next generation of the construction workforce. This includes skills both digital and analog, in design and assembly, in a factory and on the site.

Proposed Use Details:

Activity Type	Activity No.	Activity Title	Deliverables
Proposed Use	1	Builders Lab	<ul style="list-style-type: none"> -First pilot projects from Builders Lab companies in early 2024 (i.e., direct development of housing units) -First incubator “graduates” in mid-to late 2024 -By 2025: Growth of incubator class size to 15+ simultaneous companies.
Subtask	1.1	Updated, detailed business plan for program launch	Updated business plan, financial model, and staffing plan for the Builders Lab program in alignment with REAP 2.0 HIT goals

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Subtask	1.2	Secure physical facility for Builders Lab	Lease with facility that meets the full needs of the Builders Lab program
Subtask	1.3	Launch of program	Program will launch with initial machines and core programming Starting class of five companies selected via a competitive selection process

The Industrialized Construction Catalyst Fund proposal is summarized as follows:

Principal Goals:

- Create a revolving fund to provide three critical, initial financing products that maximize cost and time-saving benefits of industrialized construction (IC) methods. Launch products include:
 - Predevelopment / Deposit Bridge Loans: Enables housing developers to make required factory production deposits ahead of permanent financing commitments.
 - Letter of Credit (LOC) / Guaranty Pool: Provides a backstop for project sponsors when factories are unable to provide a performance and payment bond or LOC to guarantee factory performance under the contract. This is a critical barrier to IC adoption as developers/sponsors do not have the financial capacity to mitigate the impact of factory failure during construction.
 - Builder’s Risk Insurance: Ensures developers/sponsors can secure builder’s risk insurance at an affordable price for IC projects, given recent loss/claim experience. Creation of a self-insurance pool or first loss fund would mitigate this issue.

Components of the ICCF include:

- A focus on mid-rise, mid-size affordable infill housing projects for which existing IC producers are best suited and which meet state and regional transit and sustainability goals.

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- Alignment with available public subsidies.
- Prioritization of projects located in and benefitting disadvantaged and historically underserved communities.
- Service as a bridge lender as the modular industry matures and factories and developers can self-finance through existing barriers with products from traditional financial institutions.

Proposed Use Details:

Activity Type	Activity No.	Activity Title	Deliverables
Proposed Use	2	IC Catalyst Fund	REAP Funding will seed \$50M Industrialized Construction Catalyst Fund -By Q1 2023 complete product refinement and ICCF Business Plan -By Q2 2023 secure additional philanthropic funding commitments -By Q3 2023 make first ICCF loans to IC projects
Subtask	2.1	Refine product offerings and business plan for ICCF	-Complete developer, general contractor and factory interviews to test product concepts and identify ICCF pipeline. -C22Refine business plan for ICCF launch. -Develop/refine donor pitch based on interviews and secure commitments for \$50M fund
Subtask	2.2	Pipeline development	Establish pipeline of ICCF eligible projects beginning with first investment in Q4 2023 and projecting through first year of Fund
Subtask	2.3	Program/product launch	Launch ICCF, including pilot projects and revolving use Supportive research from Turner Center