



INNOVATIVE COMMUNITIES BY DESIGN

Summary

As our communities face rapid growth, increasing storm intensity and economic challenges, communities around the Mobile Bay can't afford to wait until after the next hurricane or flood, or ignore chronic stresses such as aging infrastructure, to plan for the future.

Fairhope is the fastest growing and rainiest city in the country (as a suburb of Mobile), and in a unique position to utilize innovative comprehensive planning strategies as we continue to grow. We will create and deploy a new process of collaborative research and development that will help us implement ideas for a more resilient future. Government, in general, is not known for innovation and cities that thrive are directly influenced by an innovative population. For over 100 years, the City of Fairhope has always attracted creative, free-thinkers. Creating a center within our local government to design our infrastructure and promote a resilient and more environmentally sustainable future is a natural fit.

Inspired by Henk Ovink, the newly appointed Special Envoy for International Water Affairs for the Kingdom of the Netherlands, we will model this design studio, called Innovative Communities by Design, with his Rebuild by Design mission, which is to reimagine the process by which communities create solutions to complex problems. We will integrate collaborative, design-driven solutions to address stormwater, Sanitary Sewer Overflows (SSOs) and future land-use planning. The approach will be to request proposals for solutions to these issues that will be incentivized with a competitive challenge, which will harness innovative environment needed to solve complex issues.

Innovative Communities by Design integrates collaborative, design-driven problem-solving that will help communities and cities around the Mobile Bay be better prepared to bounce back from the impacts of shocks and stresses. At its core, Innovative Communities by Design will function as a research and design laboratory that will focus on reimagining the way communities on the Eastern Shore tackle complex problems centered on accommodating increasing water due to increased density. By cultivating collaboration between designers, researchers, community members, government officials and subject-matter experts, communities can overcome existing regulatory barriers and co-design solutions to address the intersection of physical, social, and ecological resilience to drive lasting change.

Innovative Communities by Design will provide a hub for the Gulf Coast region to create proactive and innovative ways to develop and redevelop in our fast-growing communities. By harnessing innovative ideas to accommodate water, this regional design studio will be the nexus of research, design and education for living with water along the Gulf Coast and will serve as a model for other coastal communities. This idea is founded on two principles. First, to tackle future challenges, and second to bring partners together to collaborate from the inception phase to implementation and evaluation.

Design solutions developed and tested through a collaborative process will integrate innovative engineering and architecture with proven landscape architecture and green infrastructure methods to address issues the region's challenges. These solutions will be informed, innovative, and implementable. Working with government and local stakeholders throughout the design stages ensures all projects are realistic and achievable, and have strong community support.

The funding for this project will establish Innovative Communities by Design, physically located in Fairhope, Alabama. Innovative Communities by Design will be a collaborative effort of the University of South Alabama (Civil, Coastal, and Environmental Engineering), the City of Fairhope and other university and environmental agencies and programs, including nonprofits with environmental, engineering and design-centered missions.

Project Implementation

Innovative Communities by Design, incubated inside Fairhope's Planning Department and then later housed on a civic and educational campus in the heart of Downtown Fairhope, will serve as a regional hub for research and design services needed for the implementation of managing water throughout the region. Individuals, municipalities and nonprofits will benefit from the vast range of professional resources that will provide technical services and advice for projects that will ensure communities are better able to withstand future disasters and stressors. Innovative Communities by Design will assist in the following ways: 1) match-make community projects with local pro-bono designers; 2) liaise with permitting and building agencies; 3) assist in leveraging funding for design and construction; and, 4) provide contract and project management support.

Research/Case Studies

Innovative Communities by Design will conduct research on a broad range of community needs and solutions centered on living with an abundance of water within a complex ecosystem. Innovative Communities by Design will undertake research projects and develop case studies that aim to discover innovations in community-led design and promote the best practices

associated with resilient design. Case studies of resilience projects will be a tool for sharing ideas and solutions within this region.

Network Building

Innovative Communities by Design will work in collaboration with local and national groups and individuals with skills and experience that support the needs on the Eastern Shore. This network will provide the support the design studio and broader professional engineering and architectural community need to work in concert with other resilience-related groups: the finance sector, public utilities, emergency managers, community leaders, etc.

Training

Innovative Communities by Design will create training opportunities, both on-site and virtually, for students, community members and professional architects and designers. Professional training and community workshops will be tailored to demand and needs and may include; community engagement methods, fundraising, communications, asset mapping, neighborhood planning, advocacy skills, needs assessments, cost-effective design practices, post-disaster response, resilient construction techniques among many others.

Education/Knowledge Sharing

This facility will also serve as a learning laboratory and hub where best practices and innovative design solutions can be tested and shared not only with primary partners and collaborators, but also with other universities. Opportunities will be provided for university interns to gain hands-on experience in research, design and implementation. An additional outcome will be curriculum development with a long-term goal of creating a network of professionals trained on how to live with, and accommodate water.

By researching and implementing projects, Innovative Communities by Design will generate a vast array of practical knowledge and hands-on experience working with communities on the Eastern Shore. The outcomes of Innovative Communities by Design, along with best practices, lessons learned and project evaluations will be documented and shared for the benefit of the Innovative Communities by Design's respective communities as well as inform regional and national resilience thinking.

Advocacy

Innovative Communities by Design will advocate for improving and expanding engineering and design best practices by sharing lessons learned through research and implementation of projects. Innovative Communities by Design will champion the widespread acceptance and implementation of resilience ideas and projects.

Policy Recommendations

Based on the research and completed projects, Innovative Communities by Design may offer input on how to improve policy surrounding planning, zoning and water quality; engineering approaches for protection and restoration of coastal estuaries and upland freshwater wetlands; community infrastructure; resilience and sustainability; and coastal emergency management.

Innovative Communities by Design will strive to create information that is useful for decision-making surrounding resilient community development.

Project Status

Property/Resource Acquisition – City of Fairhope owns the property where construction will take place.

Planning/Design – The professional services of an architectural and engineering firm will be properly procured to provide technical services for the project design and bidding phase for construction of the building.

Permitting – All necessary construction permits will be obtained.

Time to Implementation - Planning, Architecture/Engineering Design - 1 year

Time to Project Completion - Construction and Start-Up - 2 years

Operations, Maintenance, Project Design and
Implementation - 2 years

Total - 5-year project

Project Phases - Planning, Architecture/Engineering Design, Construction, Operations, Maintenance, Project Design and Implementation