MIAMIBEACH

OFFICE OF THE CITY MANAGER

NO. LTC # **385-2016**

LETTER TO COMMISSION

To: Mayor Philip Levine and Members of the City Commission

From: Jimmy L. Morales, City Manager

Date: September 20, 2016

Subject: METROLAB NETWORK

The purpose of this Letter to Commission is to provide an update on the request by Commissioner Arriola to engage the MetroLab Network to identify and form a city/university collaboration to focus on "research, development, and deployment" (RD&D) projects that offer technologically- and analytically-based solutions for challenges facing city infrastructure, services, and other public sector priorities. City administration has been working these past few months with local universities to determine partnership opportunities as it relates to planned and/or current projects. The City of Miami Beach was invited to join the MetroLab Network, in partnership with Miami-Dade County, City of Miami, University of Miami, Florida International University, and Miami-Dade College, under a Greater Miami and the Beaches (GMTB) collaborative. The Greater Miami and the Beaches collaborative was created to respond to global trends major metropolis' face: urbanization, globalization and climate change and to participate in the 100 Resilient Cities partnership, pioneered by the Rockefeller Foundation.

The Greater Miami and the Beaches collaborative submitted a letter to President Obama on September 19, 2016, committing to continue to research, develop, and deploy technology-enabled solutions that can help address out communities' most pressing challenges. Through discussions, the mayors and university presidents identified the following three research projects to undertake this upcoming year:

- Project 1 - Innovating Adaptation: Research, Development and Deployment of Projects to Mitigate Coastal Flooding, Adapt to Sea Level Rise and Enhance Resilience
- Project 2 - Fight the Bite: Research, Development and Deployment of Projects, Programs and Protocols to Eliminate and Address the Impacts of Climate-related Diseases (including Zika).
- Project 3 - Moving Up and Moving Around: Research, Development and Deployment of Projects to Increase Economic Prosperity for Individuals and Families, Increase Affordable Housing, and Create Multi-modal Transportation Options

As a member of the MetroLab Network, launched as part of the White House's Smart Cities Initiative, our collaborative will leverage university expertise to address challenges facing cities and regions across the country. The goals of the Network are:

- Enable the city-university partnerships to share their projects to ensure their broad dissemination and adoption, including the development and sharing of the infrastructural tools required to support the scaling of promising solutions and deploying best practices

across the network.

- Identify common issues shared by multiple metro areas that can best be solved by multi-city, multi-university collaboration.
- Create a platform for Network members to jointly plan and seek funding resources to support multi-city projects.

Next steps will include memorializing the collaborative in a Memorandum of Understanding. We will continue to update you on our progress. If you have any questions, please feel free to contact me.

ST/KGB/LDR

Attachments

Letter from the Mayors of Greater Miami & the Beaches and University Leadership to President Obama on the Creation of a MetroLab Network
September 19, 2016

We, the undersigned university presidents and mayors, commit to continue collaborating within and across our communities to research, develop and deploy technology-enabled solutions that can help address our communities' most pressing challenges. Local governments in South Florida have already enjoyed formal and informal relationships with our universities at the local, regional, and state levels and look forward to the MetroLab Network to further enhance these collaborative partnerships.

Our cities and metropolitan areas face complex challenges involving interconnected and interacting infrastructure systems such as transportation, water and sewer, communication, buildings, and public services. Under conventional approaches, addressing these looming challenges will require significant investment.

Our cities are living laboratories for innovation in addressing these challenges. Miami-Dade County, the City of Miami Beach and the City of Miami (in coordination with the Miami Foundation) created a unique partnership to apply for and receive the Rockefeller 100 Resilient Cities designation. Out of this process, Greater Miami and the Beaches was created to develop a Resilience Strategy for the entire county to address the challenges of urbanization, globalization and climate change.

Our research universities have the physical and human resources to help their cities meet these challenges through undertaking research, development – and deployment – of innovative projects at lower cost. The identification and undertaking of these innovative and deployable projects can best be identified and prioritized through a working partnership between Greater Miami and the Beaches and the universities that outlines the purpose and process. We are already engaged in these beneficial partnerships.

Any such partnership will exponentially benefit by collaborating with other city/university partnerships similarly organized. Given the complexities of many of our infrastructure challenges, a comprehensive research, development and deployment approach embracing multiple cities and multiple universities working together collaboratively can offer important advantages.

The formation of an unincorporated network of city/university partnerships, hereinafter referenced as the MetroLab Network, would enable such explicit sharing and collaboration in research development and deployment of solutions to Greater Miami and the Beaches. Notwithstanding our full commitment to the MetroLab Network and the benefits of collaboration, from time to time we understand that each municipal partner may have direct engagements with certain timelines and commitments, and these engagements will serve to benefit the entire collaborative as a whole.

Therefore, the undersigned agree to:

Form a Greater Miami and the Beaches University collaboration within our community, to be memorialized in a forthcoming Memorandum of Understanding (MOU);

Appoint a representative from each partner responsible for maintaining the collaboration;

Through the collaboration, identify and undertake at least three research, development and deployment projects within the coming year, as briefly summarized in the attachment and pending details and approval of the MOU through each entities approval path; and

Participate as a member of the MetroLab Network through workshops and other knowledge sharing activities.

Carlos A. Gimenez
Mayor, Miami-Dade County

Tomás Regalado
Mayor, City of Miami

Philip Levine
Mayor, City of Miami Beach

Dr. Julio Frenk
President
University of Miami

Dr. Mark B. Rosenberg
President
Florida International University

Dr. Eduardo J. Padrón
President
Miami Dade College

Attachment: Greater Miami and the Beaches Partnerships and Projects

Project #1

Name:	Innovating Adaptation: Research, Development and Deployment of Projects to Mitigate Coastal Flooding, Adapt to Sea Level Rise, and Enhance Resilience
City or University POC & Email:	Nichole L. Hefty, Deputy Chief Resilience Officer, Miami-Dade County heftyn@miamidade.gov
Description:	Miami-Dade County prepared county-wide reports addressing coastal flooding and long term adaptation to sea level rise. All three local governments have designed coastal flooding mitigation projects to address localized flooding from high tides and storm events, such as upgraded drainage and pumps in the City of Miami and elevated roadways and pumps in Miami Beach. FIU has created a Sea Level Solutions Center and UM has initiated research and design projects within the Schools of Architecture, Engineering, and the Rosenstiel School of Marine and Atmospheric Science. Under the Greater Miami and the Beaches Resilience Collaborative, partners work together to research, develop and deploy county-wide projects and facilitate intergovernmental approvals for projects. Academic partners will coordinate and facilitate independent research and class level applications in support of the local government efforts, utilizing a multi-college, interdisciplinary approach. Partners will be challenged to innovate practical solutions for both public and private sector application.

Project #2

Name:	Fight the Bite: Research, Development and Deployment of Projects, Programs and Protocols to Eliminate and Address the Impacts of Climate-related Diseases (including Zika)
City or University POC & Email:	Dr. Leslie Rosenfeld, Chief Learning and Development Officer, City of Miami Beach leslierosenfeld@miamibeachfl.gov
Description:	Globalization, urbanization and climate change are exacerbating public health challenges and traditional treatment methods may not be sufficient in our fast paced, dynamic world. Miami-Dade County is experiencing increased transmission of tropical diseases by residents and nonresidents who travel to where diseases are more prevalent and, upon returning to South Florida, provide paths for diseases to spread through mosquitoes. Federal, state, and local government epidemiologists and entomologists are taking actions to eliminate areas where mosquitoes can breed and to provide medical assistance to local populations. Emerging diseases potentially impact the health of residents and also have economic consequences for individuals, localized areas, and the greater region. The GMTB Resilience Collaborative will focus on new possible innovative courses to address these complex multi-disciplinary issues. Academic partners will be involved in literature research, actual research, and public dialogue among all involved to address issues at hand and reduce risks moving forward.

Project #3

Name:	Moving Up and Moving Around: Research, Development and Deployment of Projects to Increase Economic Prosperity for Individuals and Families, Increase Affordable Housing, and Create Multi-modal Transportation Options
City or University POC & Email:	Dr. Stephanie Tashiro, Hazard Mitigation and Disaster Recovery Specialist, City of Miami stashiro@miamigov.com
Description:	Greater Miami suffers from extreme income disparity and high localized poverty levels. Residents of greater Miami face some of the highest housing cost burdens in the nation. Limited family income also impacts transportation and housing options. These are not independent issues, but in fact need to be addressed comprehensively. Access to transportation is a pivotal factor in resilience as transportation allows people to connect with jobs, resources and each other. Local governments deploy fiscal resources to develop and maintain job training, transportation and housing assets for their residents. Economic development organizations are charged with attracting new businesses and retaining and expanding existing businesses. As part of the development of the Greater Miami and the Beaches Resilience Strategy, university partners will provide research that will help to connect, evolve and expand traditional efforts to develop practical policies and programs to support local and regional goals.

Greater Miami and the Beaches (GMTB)

Partnerships and Proposed Projects

City Partner(s):	• Carlos A. Gimenez, Mayor, Miami-Dade County • Tomás Regalado, Mayor, City of Miami • Philip Levine, Mayor, City of Miami Beach
City POC:	• Ms. Nichole L. Hefty, Deputy Chief Resilience Officer, Miami-Dade County (heftyn@miamidade.gov) • Dr. Leslie Rosenfeld, Chief Learning and Development Officer, City of Miami Beach (leslierosenfeld@miamibeachfl.gov) • Dr. Stephanie Tashiro, Hazard Mitigation and Disaster Recovery Specialist, City of Miami (stashiro@miamigov.com)
University Partner(s):	• Dr. Julio Frenk, President, University of Miami (UM) • Dr. Mark B. Rosenberg, President, Florida International University (FIU) • Dr. Eduardo J. Padrón, President, Miami Dade College (MDC)
University POC:	• Joanna de Velasco, Executive Director of Foundation Relations, University of Miami (jdevelasco@miami.edu) • Dr. Tiffany Troxler, Director, Sea Level Rise Solutions Ctr, Florida International University (troxlert@fiu.edu) • Ramiro Almeida, Professor and Director, Innovation Lab, Miami Dade College (ralmeida@mdc.edu)
Websites, Programs	https://floridaclimateinstitute.org/ (The Florida Climate Institute) http://www.southeastfloridaclimatecompact.org/ (Southeast Florida Regional Climate Change Compact) http://theideacenter.co/ (Miami Dade College Idea Center) http://slsc.fiu.edu (FIU Sea Level Solutions Center) http://climate.miami.edu (University of Miami Climate Change Special Report) http://news.miami.edu/stories/2016/04/green-u-hosts-sea-level-rise-panel-discussion.html (UM article on Sea-Level Rise Panel Discussion, April 2016) http://sharkresearch.rsmas.miami.edu/tag/sea-level-rise (information on research related to sea level rise, through the Rosenstiel School of Marine & Atmospheric Science)

	http://uhealthsystem.com/zika-virus (information on Zika from UHealth/Miller School of Medicine physicians) http://carta.fiu.edu/climatechange/ (FIU Communication Architecture & the Arts – Climate Change Initiative) https://metropolitan.fiu.edu/research/services/economic-and-housing-market-analysis/ (FIU Metroplitan Ctr. Economic and Housing Market Analysis) http://www.ihrc.fiu.edu (FIU International Hurricane Ctr.)
Existing City-University Partnership	The members of the Greater Miami and the Beaches have had long-standing and productive partnerships with the local universities. Strong working relationships have developed amongst the entities, leading to regular communication, project partnerships, and successfully funded grant proposals that provide important data and information used to tackle multiple issues and challenges in the County and the Southeast Florida region. Below are just a few examples of the many partnership projects underway. 1) Several FIU projects have emerged from the existing city/county/university collaborative partnerships, including the Urban Resilience to Extremes (UREx) and Urban Water Innovation Sustainability Research Networks (SRN). These 2 NSF-funded projects, a year old now, are specifically focused at developing innovative tools and knowledge for urban resilience and sustainability. The UREx SRN is specifically focused on "co-production of knowledge" with city and county partners, and is based on a broader, long-standing partnership with the City of Miami Beach. The partnership with the City also includes a student internship program. 2) Since 2002, Miami Dade College has partnered with the City of Miami to administer and manage the historic Tower Theatre—one of Miami's oldest cultural landmarks. Serving as the epicenter of an economic revitalization of the Little Havana area, this partnership is contributing to a cultural Renaissance in the City of Miami's inner core. As a result, the Tower Theatre continues to prosper as a destination point and gathering place for locals and visitors alike. The positive impact of our combined effort is palatable and evidenced by the energy, increased tourist and local foot traffic, special events and festivals taking place in Little Havana, all generating national and international media attention and increased economic development.

	3) The University of Miami Center for Urban and Community Design will lead a charrette at the upcoming Resilient Redesign III event, to be held at the University in November, 2016. This event is being co-organized supported by the Southeast Florida Regional Climate Change Compact and will include municipal and county leaders, planners, scientists, architects, urban designers and specialists, as well as UM students enrolled in resiliency courses. As part of this project, the executive director of the Center is teaming up with Miami-Dade County's Office of Resilience, to co-teach a class on "adaptation action areas" that will be the focus of the Resilient Redesign charrette. Courses address resiliency and preservation in Miami Beach. Findings from past semesters have been shared with the City, including documentation drawings.