October 13, 2020

RE: Green Recovery Task Force: Issues for Engineering Firms and their public clients

Dear Chairman Golden and Members of the House's Green Recovery Task Force

Funding for community and infrastructure projects would be welcomed by municipalities as well as the engineering firms and larger community of design professionals, not only because of the short-term benefit to provide economic stimulus, but also because of the long-term resilience benefits to the Commonwealth and its citizens. Incentives for the private sector to incorporate resilience measures that advance the long-term goals outlined in the 2050 Roadmap for decarbonization goals that align with the Global Warming Solutions Act and the State Hazard Mitigation and Climate Adaptation Plan (SHMCA) would also yield short- and long-term economic and resilience benefits. Numerous assessments and studies point to the value of investing in resilience, including the 2017 Government Accounting Office (GAO) report1 on the benefit of targeting federal resources for climate resilience projects, the National Oceanic and Atmospheric Administration’s guidance2 on the positive benefit-cost ratio (BCR) for green infrastructure, the National Cooperative Highway Research Program’s 2020 guidebook3 on Incorporating the Costs and Benefits of Adaptation Measures in Preparation for Extreme Weather Events and Climate Change, and the National Institute of Building Science’s 2019 report4 on the benefits of natural hazard mitigation.

As a result of the highly successful Massachusetts Municipal Vulnerability Preparedness (MVP) Program, most communities are aware of their vulnerability to current and future climate hazards. Based on our work with communities across the state, a lack of available funding leaves many unable to implement projects identified as high priority. These are projects that would reduce risk to climate related hazards, improve resilience in our communities, and benefit some of our most vulnerable residents. Often these project also include co-benefits ranging from habitat restoration to educational opportunities. The municipalities’ request for nearly five times the available funding during the last MVP Action Grant round is evidence of the need and desire to address resilience. Having worked with many communities across the state, I know first-hand that this program alone has allowed communities to design and construct projects that either would not have happened or would have not included the benefit of incorporating resilience. In addition to providing employment for engineers and other design professionals, these projects build capacity into the engineering community for expertise in green infrastructure, adaptive design to adjust to changing

2 https://coast.noaa.gov/data/docs/digitalcoast/gi-cost-benefit.pdf
climate conditions, and nature-based solutions, the latter of which has been formally recognized by the Federal Emergency Management Agency (FEMA) as having quantifiable benefits for flood reduction.

Massachusetts is making notable progress in being a leader in incorporating climate resilience into state capital projects with the recently drafted guidelines released by the Resilient Massachusetts Action Team (RMAT). Those guidelines could stand as an example for municipalities, and ultimately provide longer-term economic benefits in terms of losses avoided. Most of our infrastructure is designed with a lifespan of 30 or more years and the climate science indicates that sea level, storm surge, extreme precipitation and temperature is not stationary, but will instead require us to adapt our engineering design to acknowledge and accommodate future conditions. Consequently, I urge the Green Recovery Task Force to consider support for a green recovery that focuses on requiring climate resilience as part of any project receiving state funds, takes into account the needs of our most vulnerable populations in our urban centers and rural communities across the state, and looks to the long-term benefits of building a more resilient Massachusetts.

Sincerely,

Diane Mas, PhD, REHS/RS, WEDG
Vice President | Chief Resilience Officer