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CAPE COD  
COMMISSION

August 31, 2023

U.S. Senator Elizabeth Warren, Massachusetts  
2400 JFK Federal Building  
15 New Sudbury Street  
Boston, MA 02203

Re: Community and Regional Impact of the Cape Cod Bridges

Dear Senator Warren,

Thank you for providing the Cape Cod Commission with the opportunity to share our regional perspective on the impact of the Bourne and Sagamore Bridges across our fifteen communities. The importance of the Bourne and Sagamore Bridges to the region cannot be overstated – the long-term viability of Cape Cod is inextricably linked to the health and fate of both bridges. We appreciate your efforts to secure funding for the replacement of these 90-year-old functionally obsolete bridges.

Please see below for responses to the questions posed in your letter, dated July 28, 2023. While these responses largely focus on our planning area, the fifteen communities of Cape Cod, we would like to also acknowledge the role the bridges play as a lifeline to Martha's Vineyard and Nantucket. The impacts detailed for our planning region largely apply to the islands as well.

*1. What impact has the state of disrepair of the bridges had on your community to date, including the impact of previous closures of the bridges? What are the economic impacts to tourism, local workers, businesses, families, and community members? What have the impacts been to the community at large, such as supply chains and the availability and accessibility of retail goods and other items that come across the bridges? Does the state of the bridges make it more difficult or more expensive for residents to have access to everyday items?*

The ability of the region's transportation system to meet the current and future needs of Cape Cod's residents, businesses, and visitors depends on safe and reliable canal crossings. An issue with either of the bridges impacts all of the communities in our region. Impacts range from local challenges, like emergency response within the town of Bourne, to regional challenges, like providing reliable movement of people and goods to the Cape as well as the Islands.

Increasingly frequent maintenance activities on the bridges, while critical to the safe operation of the structures, have a substantial detrimental impact on the lives of Cape Cod residents. The most recent Sagamore Bridge maintenance activities in the spring of 2023 resulted in significant traffic delays – roughly 420,000 person-hours of

delay equating to roughly \$10 million in lost time.<sup>1</sup> This does not include the secondary economic impacts, such as the business impacts of employees who were delayed in getting to work or shipments that were late or that went undelivered. It also does not account for the human costs associated with delays experienced by emergency personnel, school buses, and residents.

Cape Cod is susceptible to significant supply chain disruptions whenever there are issues with the bridges, as nearly all goods coming into the region travel over the bridges. The region relies on an estimated 2 million truck trips over the bridges each year, necessary for the essential functioning of our regional economy and to sustain our communities. Just as the importance of the supply chain has been discussed at the national stage,<sup>2</sup> our local supply chain has a potential single point of failure – the Cape Cod Canal Bridges. Issues with the bridges would have near immediate impacts on the availability of goods for residents of Cape Cod and the Islands.

*2. What are the benefits of replacing the bridges? How will replacing the bridges benefit the economy, tourism, businesses and local industries, and the community at large?*

The Real GDP in 2021 of all industries in Barnstable County represented more than \$15 billion in current dollars.<sup>3</sup> The top five industries by employment in the region are Health Care and Social Assistance, Retail Trade, Accommodation and Food Services, Construction, and Educational Services.<sup>4</sup> Nearly all industries rely in one way or another on timely and successful crossing for employees, goods, and visitors.

Tourism is a critical component of the Cape Cod economy and the vast majority of visitors to Cape Cod utilize the bridges to come to the region. For many residents, their annual income heavily or solely depends on a ‘good summer season’ but not only does tourism directly provide jobs and incomes for many in the region, it also brings in significant tax revenues to the Commonwealth and to support necessary services and infrastructure in the region. For example, the Cape Cod & Islands Water Protection Fund (CCIWPF), a dedicated fund to help Cape Cod and Islands towns pay for necessary wastewater infrastructure and water quality remediation projects is funded from a 2.75% excise tax on traditional lodging and short-term rental. Since collections began in July 2019, the CCIWPF has received revenues in excess of \$63 million (through May 2023)<sup>5</sup>. This source of revenue has allowed the CCIWPF Management Board to award approximately \$140 million in subsidies to Cape Cod towns for necessary infrastructure investments.

While many healthcare services are available on Cape Cod, there are needs for Cape and Islands residents to travel across the bridges to the South Shore or Boston for some specialty services such as certain cancer care measures. There are some life-threatening risks and emergencies that also require transport to off-Cape trauma centers<sup>6</sup> either by ambulance or helicopter. Under some emergency and critical conditions, the livelihood of residents and visitors could be jeopardized if easy, safe, and quick access to and over the bridges is compromised. The bridges are the only emergency route off of Cape Cod.

The Bourne Bridge is also part of the Federal Highway Administration (FHWA) and the Department of Defense (DoD) designated Strategic Highway Network (STRAHNET) due to the importance for military transportation, national security, and emergency preparedness.<sup>7</sup>

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<sup>1</sup> Cape Cod Commission staff analysis of cell phone-based data for 3/20/2023-5/11/2023 through the RITIS platform

<sup>2</sup> [Remarks by President Biden on the Trucking Action Plan to Strengthen Our Nation’s Supply Chains](#)

<sup>3</sup> [Bureau of Economic Analysis Gross domestic product \(GDP\) by county and metropolitan area](#)

<sup>4</sup> [Employment and Wages by Industry – Data Cape Cod](#)

<sup>5</sup> [Blue Book Reports – Massachusetts Department of Revenue](#)

<sup>6</sup> [Massachusetts Approved Trauma Centers](#)

<sup>7</sup> [2023 Massachusetts Freight Plan](#)

*3. What would the future impacts be on your community if the bridges do not get replaced, and they continue to deteriorate?*

According to the Army Corps of Engineers, if the current maintenance approach (“fix-it-as-it-fails”) continues, the bridges will reach the point where escalating repair needs force weight limit posting of the bridges. Structural analysis indicates that this could occur by approximately 2026 for both the Bourne and 2036 for the Sagamore Bridge.<sup>8</sup> Weight restrictions would severely disrupt the movement of good to/from the region as nearly all major goods travelling to the Cape and Islands are transported over the bridges. According to Army Corps analysis, weight restrictions “would have escalating impacts on vehicle traffic and the economy of the Cape and Islands as large trucks transporting critical goods and services were replaced by ever smaller trucks. The cost of transporting goods onto and off the Cape would rise over time. More trucks and lesser speeds would result in more frequent and lengthier traffic delays. Vehicle emissions would increase and tourism would be discouraged by these conditions.”<sup>8</sup>

If the Army Corps decides the bridge replacement is not imminent, they will have to initiate a major rehabilitation of the bridges in order to meet their current charge and maintain the safety of the structures. This would result in years of significant traffic delays and bridges with all of the same geometric and safety deficiencies that exist today. Major rehabilitation actions over the next 50 years would involve an estimated 480 days of lane closures for the Bourne Bridge and 380 days of lane closures for the Sagamore Bridge as well as 180 days of full closure of the Bourne Bridge and 130 days of full closure of the Sagamore Bridge. The estimated traveler delay costs, not including secondary economic impacts, is estimated to exceed \$2 billion.<sup>8</sup>

Weight restrictions and/or major rehabilitation will significantly impact the daily lives of Cape Cod residents and the long-term viability of the region.

If a bridge inspection reveals a condition that impacts the safety of the traveling public an immediate closure would have to be initiated. In 2020, the Army Corps of Engineer conservatively estimated that the traffic delay cost that would result from such a closure of the Sagamore Bridge would be \$10 Billion.<sup>8</sup> This does not capture the overall economic impact on the region of such a closure. This type of immediate closure is far from unprecedented for a bridge of this age. The Lake Champlain Bridge, connecting Crown Point, N.Y., and Addison, Vt., was unexpectedly closed in this manner in October 2009 when a structural defect was discovered during a maintenance inspection.<sup>9</sup> The bridge was demolished later that year. The Lake Champlain Bridge was built in the same style as the Bourne and Sagamore Bridges, by the same designer, and was opened to traffic in 1929. The Bourne and Sagamore Bridges are now roughly eight years older than the age at which the Lake Champlain Bridge demolished.

*4. What are the job creation and economic benefits of the bridge replacement project to your community?*

According to the Census Bureau in 2020, about 31,000 jobs outside of Barnstable County were filled by people living in Barnstable County, and 21,500 jobs in Barnstable County were filled by workers living outside the county.<sup>10</sup> That alone is at least more than 50,000 jobs that require the bridges for workers to commute. In 2021, the earnings of those in-county workers with out-of-county jobs reached \$2.9 billion, and those of out-of-county workers with employment in Barnstable County represented \$814 million.<sup>11</sup>

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<sup>8</sup> [Major Rehabilitation Evaluation Report and Environmental Assessment](#): Cape Cod Canal Highway Bridges, Bourne, Massachusetts, USACE, March 2020

<sup>9</sup> [The Lake Champlain Bridge Emergency Replacement Project, NY State DOT, VTrans, US DOT](#)

<sup>10</sup> [OnTheMap \(census.gov\)](#)

<sup>11</sup> [BEA Interactive Data Application](#)

Thank you once again for the opportunity to share the regional perspective on the importance of the Bourne and Sagamore Bridges. The actions taken in the coming years relative to the Bourne and Sagamore Bridges will affect the long-term viability of our economy, the vibrancy of our communities, and our ability to continue to be a place that is loved by residents and visitors alike. We look forward to continued dialog on the future of the Cape Cod Canal Bridges.

Sincerely,



Kristy Senatori  
Executive Director