ISLAND END RIVER (IER) FLOOD RESILIENCE PROJECT

EXPANDED ENVIRONMENTAL NOTIFICATION FORM (EENF)

PROJECT DESCRIPTION

The Cities of Chelsea and Everett propose to construct a coastal storm surge barrier, storm surge control facility, nature-based solutions along the riverfront, and related amenities at the Island End River ("IER") in the Cities of Chelsea and Everett (the "Project Site"). The approximately 9.5-acre Project Site is currently composed of a mix of commercial and industrial uses and supporting roadway and utility infrastructure. The existing banks of the river are highly degraded by legacy industrial uses and are comprised of hardened slope stabilization measures and littered with debris. The proposed IER Flood Resilience Project (the "Project") will construct an approximately 4,640 linear foot ("lf") storm surge barrier, an approximately 2,900 square foot ("sf") underground storm surge control facility, approximately 50,000 square feet of nature-based solutions along the riverfront, and associated wetland and public access improvements along the IER.

The Project includes the following critical flood resilience elements:

Resilience Provisions East ("RPE") – This project element consists of a storm surge barrier along the Chelsea banks of the IER. Additionally, the project will provide public amenities such as a resilient riverwalk, which has been designed to increase community access to the waterfront in the form of an elevated boardwalk and vegetated berm sections. The Island End Park is a mix of urban wild and manicured greenspace and provides the community with limited waterfront access. The park will be rehabilitated as part of the Project. This element protects not only critical regional infrastructure in Chelsea but will also safeguard several residences within neighborhoods comprised of environmental justice ("EJ") or underserved populations.

Storm Surge Control Facility ("SSCF") – This structure will be constructed at the outlet to the IER of the existing Market Street culvert to prevent inland flood damage during coastal storm events. The catchment area for this outlet is approximately 200 acres within which the population has been determined to be EJ or underserved. The SSCF control gates will normally be open to allow for tidal flow into culverted and daylighted sections of the IER. Additionally, control measures will be installed on the Beacham Street drainage system to prevent backflow into the existing stormwater drainage system.

Resilience Provisions West ("RPW") – This project element consists of a storm surge barrier along the Everett banks of the IER, which is situated in a Designated Port Area ("DPA"), in the form of vertical freestanding concrete wall and flood gates to protect working port businesses from coastal inundation. This element protects not only the DPA but other critically important infrastructure including critical transportation corridors and homes for more than 6,000 residents comprised of EJ or underserved populations.

Nature-based Solutions ("NBS") – Existing degraded riverfront slopes will be reimagined using a combination of native vegetation along upper bank and perforated concrete planters, lined with hardwood, and planted with bagged salt marsh grasses downslope. The planters will be dressed with natural stone joints and tiered for low and high marsh conditions in and behind the planters, making installation modular, scalable, and minimally invasive to install during low tide conditions. This design is also adaptive – as sea level rises the planters become support for filter feeding barnacles and shellfish.

Wetlands Enhancements – The Project will improve the health of the remaining salt marsh portion of the IER by removing invasive Phragmites (*Phragmites australis*), replanting with and maintaining native species, and removing significant deposits of existing trash and debris in this resource area. Additionally, it will address issues of erosion and sparse vegetation on coastal bank resource areas around the IER through robust native planting program and slope stabilization efforts.

The Project is critical for the flood protection of the IER floodplain and surrounding low-lying areas in Chelsea and Everett, which include the residences of under-served environmental justice ("EJ") communities, significant transportation (rail and roadway) infrastructure, health care facilities, a grocery store serving much of the community, and a public high school, that will become part of the projected IER floodplain by 2070. Additionally, the Project will enhance natural resource areas, improve public access to the IER, and invest in the Island End River Park. Regional collaboration between the municipalities of the Mystic River watershed, nonprofit organizations, and other partners has been key to developing this flood protection initiative through extensive stakeholder input and community engagement.

EXISTING CONDITIONS

The IER is a tributary to the Mystic River and is tidally influenced. The IER is abutted by Everett on its western bank and Chelsea on its eastern bank. The IER has a Federal Navigation Channel that consists of a six-foot-deep, 2,500-foot-long channel extending from the Mystic River, up Island End River, to the Admirals Hill Marina in Chelsea. The channel is 90 feet wide at its lower end and 100 feet wide at its upper end. The surrounding area is heavily developed with high amounts of impervious surfaces and undersized stormwater infrastructure. The area is home to critical infrastructure including the New England Produce Center, the regional FBI headquarters, Massachusetts General Hospital, the City of Chelsea's Carter Street Pump Station, Williams Middle School, and Chelsea High School. See Figure 1, Project Locus Map.

PUBLIC AND COMMUNITY BENEFITS

The Project's benefits include, but are not limited to:

- Enhancement of the coastline protection with a new 4,640 lf coastal and inland flood barrier alignment designed to range in height of four feet or more over the current

Base Flood Elevation to protect the area's industrial, commercial, and community uses;

- Improvement of the waterfront of the Project Site through rehabilitation of the eroded shoreline and the use of adaptive nature-based solutions;
- Investment in existing Island End Park, including educational signage in multiple languages spoken in the community, new benches and other site furnishings, landscape plantings, and other amenities;
- Improvement of waterfront public access through the construction of the Resilient Riverwalk - an approximately 940-foot long, 10-foot wide elevated boardwalk;
- Construction of accessible pedestrian sidewalk amenities to Beacham Street;
- Protection of approximately 11,000 jobs, critical transportation corridors, key assets such as Mass General Hospital Chelsea, Williams Middle School, Chelsea High School, Excel Academy, and a regional FBI Headquarters, and homes occupied by EJ communities within the Cities of Everett and Chelsea;
- Creation of between 670-1,000 construction jobs over the projected 36 months of construction for the Project;
- Establishment of the Community Advisory Group, composed of more than a half dozen community-driven individuals, to provide input on the public benefits of the Project; and
- Formation of the Stakeholder Working Group, composed of over 20 representatives from private sector industrial businesses in Chelsea and Everett, to contribute feedback on the Project.

CONTACT INFORMATION

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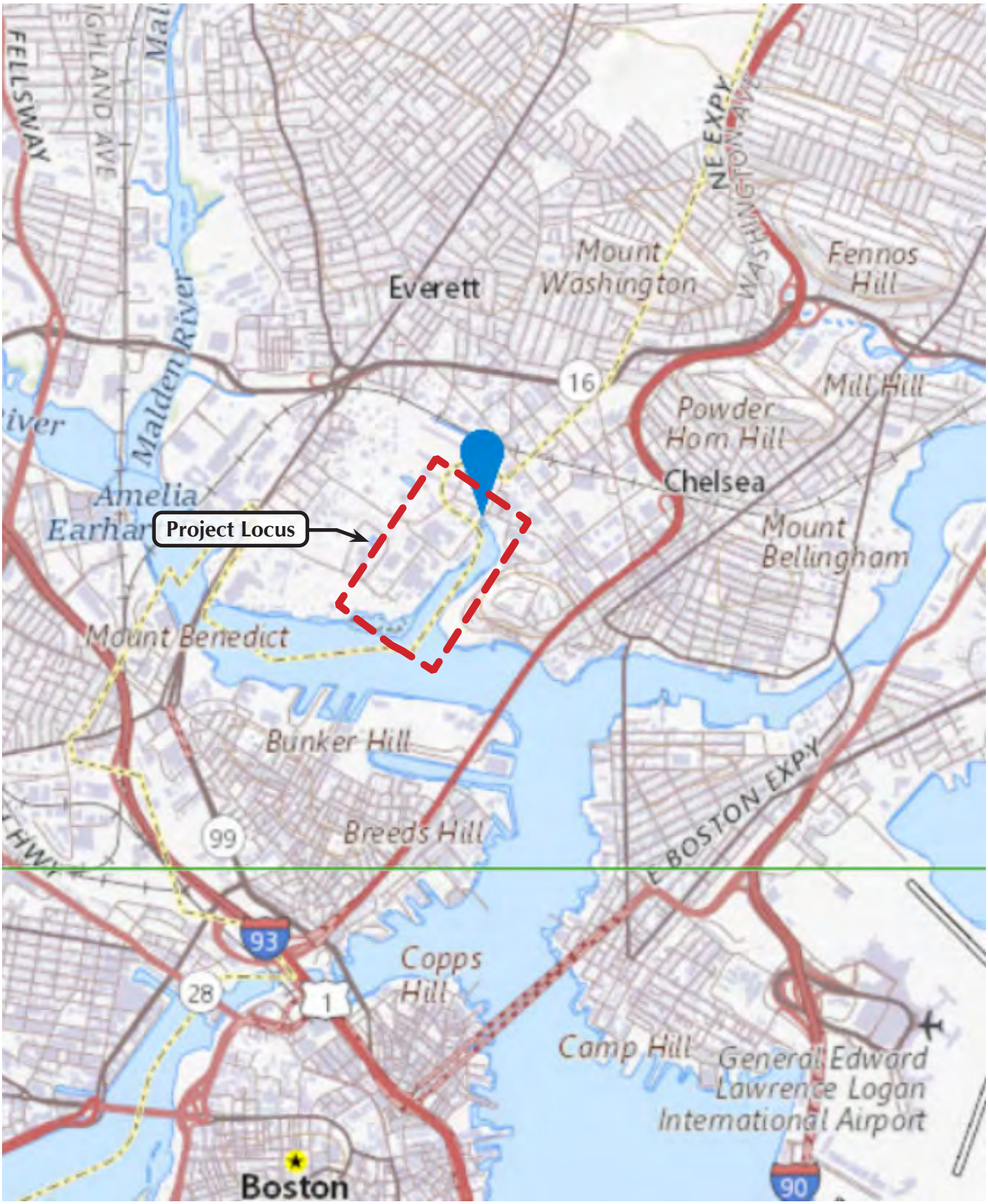
Attachments: Figure 1 - Project Locus Map Figure 2 - IER Flood Resilience Project Exhibit



Chelsea, MA
Everett, MA

Figure 1
Project Locus Map
Source: Fort Point Associates, Inc., 2022

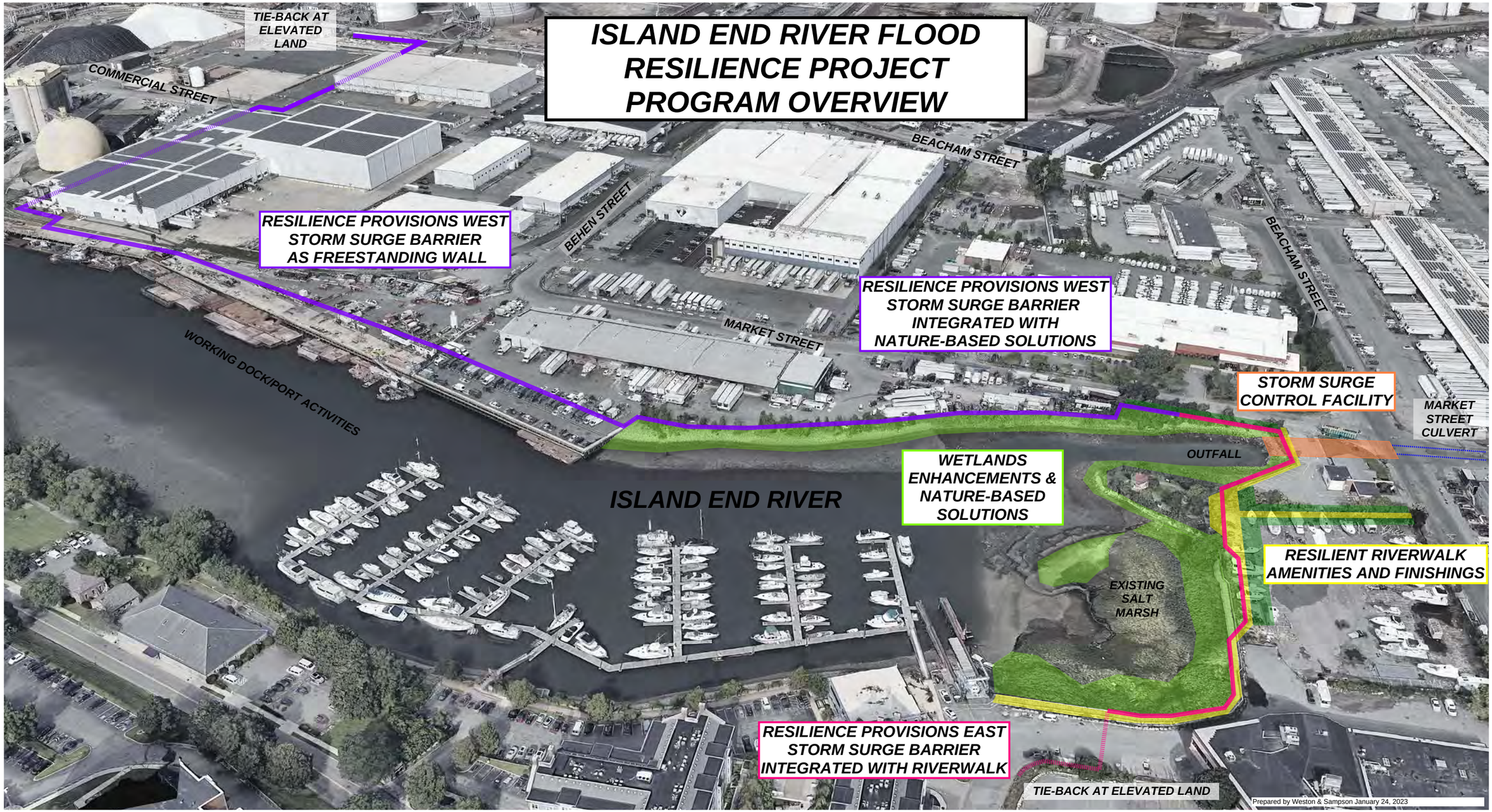


Figure 2
IER Flood Resilience Project Annotated Exhibit
Source: Weston & Sampson, Inc., 2023