

# FIRST PARISH CHURCH (BREWSTER MEETING HOUSE)

Brewster, MA



The Brewster Meeting House, constructed in 1834 in the town center of Brewster, MA, has served the community for close to two centuries. When signs of widespread deterioration in the structure became evident, church leaders formed a team to investigate the issues. Coastal Engineering Co. lent their design and construction expertise to the preservation project. The survey team examined the locus property and abutting properties and prepared a plan detailing survey results. Civil engineers reviewed existing conditions and prepared a site plan showing proposed drainage and accessibility improvements that included the design of a new stormwater drainage system, an upgraded accessible parking area, and a new route of travel from the parking lot to the building. The Geotechnical engineering staff coordinated soil boring tests and provided an internal review of qualitative soil conditions to determine presumptive foundation bearing design. Structural engineers reviewed extensively the existing church foundation and all accessible wood framing systems including steeple, roof, attic, and wall framing. To create space for infrastructure, building services, and storage, the structural team suggested that the building be raised up on a higher foundation, therefore, a new foundation was installed that allowed for a basement/ crawl space. A new drainage system was installed to facilitate proper drainage around the building foundation. Additionally, the front entry steps and platform were replaced with an appropriate design and materials. Coastal was instrumental in identifying components of the building envelope that needed attention. Engineers tagged overstressed and undersized beams and trusses in the roof structure. The roof was replaced and reinforced trusses were installed to anchor the steeple. Windows, window frames, and doors were replaced; the exterior siding and trim were also repaired. Structural engineers were on-site throughout the twelve-month preservation project cycle to oversee construction and to ensure that the results conformed to Coastal's design documents. Over the 14 month project cycle, Coastal's team evaluated existing conditions of the site and building; created a design true to the original plans; executed repairs; managed regulatory compliance, and constructed an efficient, modernized infrastructure, that while code compliant with today's regulations, continues in the tradition of the original meeting house. Coastal Engineering Co. is proud to have provided its specialty services to help bring an historic structure into the present day, yet maintain the historical fabric of one of Brewster's town treasures.

## SERVICES

- Existing conditions structural investigation and evaluation report
- Site survey and proposed site improvement plans
- Structural engineering design and plan for preparation
- Controlled construction administration services

