

## RIVER HOME

Orleans, MA

Coastal Engineering provided structural engineering design for a new 10,000 sq ft two-story single-family residence located on a bluff overlooking Little Pleasant Bay in Orleans. The home's contemporary architecture is all about bringing nature in while keeping the elements out. This goal is achieved by utilizing tall glazed window walls on the waterfront facade. Naturally protected from floods by a high elevation, the house can potentially be exposed to winds over 130 mph. Accordingly, Coastal specified steel moment frames and engineered hold downs to resist lateral forces generated by high wind loading. The foundation includes a walkout basement and follows the lines of the floor plan with curves and openings at grade. Second level includes open decks with individual access to each bedroom. Third level features another deck outside the watchtower. The roof system consists of a series of overlapping gable roofs with cut in sections and dormers.

### SERVICES

- Structural engineering design drawings for foundation, floor and roof framing, and shear walls layout
- Sections, details, schedules, and general notes for all framed levels including roofs and decks
- Construction phase services

