

# Instructions for Form 5 - Coastal Structures

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Use this form to request a revision to coastal flood hazard elevations and/or areas based on coastal structures being credited as providing flood hazard reduction from the base (1%-annual-chance) flood.

## [Download Form 5: Coastal Structures](#)

### Purpose

This form ensures the structure is designed and constructed to reduce the flood hazards from the base flood without failing or causing increased flood hazards in adjacent areas. In addition, refer to the criteria for elevating structures that reduce flood hazards. Refer to [Guidance for Flood Risk Analysis and Mapping: Coastal Structures](#).

### Additional Documentation

- If the coastal structure is a levee/floodwall, in addition to this form, submit the Levee/Floodwall System section of the Riverine Structure Form 3.
- When completing this form, the Coastal Analysis Form 4 must also be submitted.

### Section A: Background

Information about the type of structure, the location, the material being used and the age of the structure must be provided. Certified “as built” plans must also be provided.

If these plans are not available, an explanation must be given with sketches of the general structure dimensions as described.



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If the structure design has been certified by a federal agency to provide flood protection and withstand forces from the 1%-annual-chance (base) flood, the dates of the project completion and certification of the structure should be provided, and the remainder of the form does not need to be completed.

## **Section B: Design Criteria**

Documentation must be provided that ensures a coastal structure is designed and constructed to withstand the wind and wave forces associated with the base flood. The minimum freeboard of the structure must comply with the National Flood Insurance Program (NFIP) regulations at 44 CFR §65.10. Additional concerns include the impact on areas directly landward of the structure that may be subjected to overtopping and erosion, along with possible failure of the structure due to undermining from the backside and the possible increase in erosion to unprotected properties at the ends of the structure. The evaluation of protection provided by sand dunes must follow the criteria outlined in the NFIP regulations at 44 CFR §65.11. Guidance listed in Appendix B should be referenced as appropriate for each specific structure.

## **Section C: Adverse Impact Evaluation**

If the structure is new, proposed, or modified, and will impact flooding and erosion for the areas adjacent to the structure, attach an explanation and documentation to support these conclusions.

## **Section D: Community and/or State Review**

Provide documentation of the agencies that have reviewed and approved the revision.

## **Section E: Certification**

The registered Professional Engineer (P.E.) and/or licensed land surveyor should have a current license in the state where the affected communities are located. While the individual signing this form is not required to have obtained the



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Page 2 of 3

supporting data or performed the analyses, he or she must have supervised and reviewed the work.

If the requester is a federal agency that is responsible for the design and construction of flood-control facilities, a letter stating that “the analyses submitted have been performed correctly and in accordance with sound engineering practices” may be submitted in lieu of certification by a registered Professional Engineer. Regarding the certification of completion of flood-control facilities, a letter from the federal agency certifying the project’s completion and the flood frequency event to which the project protects may be submitted in lieu of this form.



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