

ENGINEERING “NO-RISE” CERTIFICATION

The National Flood Insurance Program regulations prohibit Minnehaha County from allowing any encroachments such as fill, new construction, substantial improvements, or other development within the floodway unless it has been demonstrated by a licensed engineer the work will not result in any increase in flood levels on any other properties during a base flood event (100-year flood). The floodway is the stream channel and that portion of the adjacent land that must be reserved in order to discharge the base flood without an increase in flood depth above a certain height.

Prior to the issuance of any building, grading or development permits for activities within a floodway the property owner must have an engineering “no-rise” certificate prepared by a qualified engineer licensed to practice in South Dakota. The attached form must be completed by the engineer and submitted, along with appropriate support documentation, to the Minnehaha County Floodplain Administrator in the County Planning Department. Typically a hydraulic analysis will serve as part of the required support data. The analysis must include the following steps:

- **Currently Effective Model** – Obtain the step-backwater computer model for the specific stream in Minnehaha County. Requests for the data, along with any required fees, should be directed to:
FEMA Library
Michael Baker, Jr., Inc.
3601 Eisenhower Avenue, Suite 600
Alexandria, Virginia 22304
(703) 960-8800
- **Duplicate Effective Model** – Run the original step-backwater model to duplicate the data in the Flood Insurance Study.
- **Existing Conditions Model** – Revise the original step-backwater model to reflect site specific conditions by adding new cross-sections in the vicinity of the proposed development, without the proposed development in place. Floodway limits should be measured from the FIRM and manually set. The reach limits of the stream should be

unchanged. This will indicate the 100-year floodway elevations for revised existing conditions.

- **Proposed Conditions Model** – Modify the revised existing conditions to reflect the proposed development at the new cross sections while retaining the adopted floodway widths and the existing roughness coefficients. Review the existing floodway to determine if the proposed development will have any impact on the floodway. The results must show that there will be no impact on the 100-year flood elevations.

Full support data that must accompany the Engineering “No-Rise” Certificate includes the following:

- A duplicate of the original step-backwater model.
- A duplicate of the revised existing conditions step-backwater model.
- A duplicate of the proposed conditions step-backwater model.
- FIRM and topographic maps showing the floodplain and floodway, the additional cross-sections, the site location with the proposed changes.
- Full documentation of the analysis procedures and all modifications made to the original model to show the revised existing conditions and to that model to show proposed conditions.
- A copy of the effective Floodway Data Table from the FIS report.
- A statement defining the source of the added cross-section topographic data.
- Cross-section plots of the added cross-sections, for both existing and proposed conditions.
- Certified boundary survey information showing the location of structures on the property.
- A copy of the source for the original step-backwater model input.
- Copies of all input files.

The no-rise certificate and supporting data must show that there will be no impact on the 100-year flood elevations, floodway elevations, or floodway widths at the new cross sections and at other cross-sections in the model.



ENGINEERING "NO-RISE" CERTIFICATION APPLICATION

APPLICANT		ENGINEER		
Name		Name		
Address		Address		
City		City	State	Zip Code
Daytime Phone		Daytime Phone		

SITE DATA

- Location: _____ 1/4; _____ 1/4; Section _____ ; Township _____ N ; Range _____ W
Street Address: _____
- Panel(s) No. of NFIP map(s) affected: _____
- Type of development: Filling _____ Grading _____ Excavation _____ Minor Improvement _____
Substantial Improvement _____ New Construction _____ Other _____
- Description of Development:

- Name of Flooding Source: _____

COMMENTS

SIGNATURES

This is to certify that I am a duly qualified engineer licensed to practice in the State of South Dakota. It is to further certify that the attached technical data supports the fact that the proposed development described above will not create any increase to the 100-year flood elevations on said flooding source above at published cross-sections in the Flood Insurance Study for Minnehaha County dated _____ and will not create any increase to the 100-year flood elevations at unpublished cross-sections in the vicinity of the proposed development. The proposed work is authorized by the property owner and authorization is given to representatives of Minnehaha County to enter the property now and in the future for inspection purposes.

Signature Date

Title

(Seal)