



FEMA

October 17, 2007

Mr. Keith A. Dylewski
Municipal Government Annex, City of Massillon
151 Lincoln Way East
Massillon, Ohio 44646

RE: Massillon Local Flood Protection Project

Dear Mr. Dylewski:

This is in regard to the Massillon Local Flood Protection Project shown on the effective Flood Insurance Rate Map (FIRM) and in the effective Flood Insurance Study (FIS) report for the City of Massillon. As you may know, the Ohio Department of Natural Resources and FEMA are working jointly to produce a countywide FIS report and Digital Flood Insurance Rate Map (DFIRM) for Stark County. This effort is being undertaken as part of FEMA's Flood Map Modernization (Map Mod) program.

The effective FIRM and FIS report depict some areas as receiving protection through the Massillon Local Flood Protection Project. Based on the information available and on the mapping standards of the National Flood Insurance Program (NFIP) at the time that the FIS was performed, FEMA accredited the levee with providing protection from the flood that has a one percent chance of being equaled or exceeded in any given year. This one percent annual-chance flood is also referred to as the base flood.

For FEMA to continue to accredit the identified levee with providing protection from the base flood, the levee must meet the requirements of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10), entitled "Mapping of Areas Protected by Levee Systems" (copy enclosed). In accordance with 44 CFR 65.10(a), it is the responsibility of the community or other party seeking recognition of a levee system to provide the data defined and outlined within the regulation. Specifically, the design and construction data provided must be certified by a registered professional engineer or by a Federal agency with responsibility for levee design.

FEMA understands that it may take time to acquire and/or assemble the documentation necessary to fully comply with 44 CFR 65.10. Therefore, FEMA has incorporated a process into the aggressive schedule of Map Mod that, if needed, will provide you with additional time to submit all the necessary documentation. **Initiation of this process can take place only if you, the levee owner, and a representative of each impacted community sign and return the enclosed agreement within 90 days of the date of this letter (before January 16, 2008).**

Completion and submittal of the enclosed agreement will officially request that FEMA label the levee as a Provisionally Accredited Levee (PAL) on the DFIRM and will serve as your agreement that, to the best of your knowledge, the levee meets the requirements of 44 CFR 65.10. The completed agreement must be submitted before January 16, 2008, for the levee to receive the PAL designation.

By endorsing the agreement, you agree to provide all the necessary documentation to comply with 44 CFR 65.10 before January 16, 2010. If you are unable to submit all of the documentation necessary to meet the requirements of 44 CFR 65.10 before this date, FEMA will initiate a map revision to redesignate certain areas on the landward side of the levee as floodprone.

The levees will be labeled as PALs during the 24 month period to convey to map users that levee certification verification is underway. FEMA recommends that you, the levee owner, and the impacted communities implement outreach efforts to inform affected property owners that an assessment of the levee is underway. FEMA also encourages the purchase of flood insurance, even though coverage is not federally required.

If the documentation necessary to fully comply with 44 CFR 65.10, including an existing operation and maintenance plan and record of an on site inspection by a registered professional engineer, is readily available, please submit the data to this office within 30 days of the date of this letter. Upon receipt of your submittal, FEMA will review the data and determine whether the levee will continue to be accredited with providing protection from the base flood.

If you have additional questions regarding the specific submittal requirements, please contact Mike Hanke of my staff, either by telephone at (312) 408-5364 or by e-mail, at mike.hanke@dhs.gov.

Please return the completed agreement to the following address:

FEMA
Attn: Mike Hanke
536 S. Clark St. 6th Floor
Chicago, IL 60605

We look forward to working with you and community officials to address this important matter. If there is anything we can do to facilitate the submittal process, please let us know.

Sincerely,



Norbert Schwartz
Director, Mitigation Division
FEMA Region V

Enclosures

cc: Mr. Francis Cicchinelli, Jr., Mayor, City of Massillon
Mr. Jim Witherspoon, Chief Building Official, Floodplain Administrator
Mr. Dave Humphries, United States Army Corps of Engineers
Mr. Michael Stickler, United States Army Corps of Engineers
Ms. Cindy Crecelius, Ohio NFIP State Coordinator, ODNR
Mr. Jonathan Sorg, ODNR
Mr. Tadd Henson, FMSM
Mr. Mike Hanke, FEMA Region 5
Mr. Robert Murdock, Regional Management Center 5

U.S. Senator George Voinovich, Washington, DC Office
U.S. Senator Sherrod Brown, Washington, DC Office
U.S. Congressman Ralph Regula, Washington, DC Office

**Letter of Agreement to Comply With the Code of Federal Regulations, Title 44, Section 65.10
(44 CFR 65.10) and Request for Provisionally Accredited Levee (PAL) Designation**

Massillon Local Flood Protection Project

We, the undersigned, have received the letter from FEMA dated October 17, 2007, and the enclosed document entitled "Requirements of 44 CFR 65.10". We understand that FEMA is in the process of providing updated flood maps for Stark County and that the area behind the levee system known collectively as the Massillon Local Flood Protection Project will be remapped to reflect that the levee system has been designated as a PAL.

To the best of our knowledge, the levee system known collectively as the Massillon Local Flood Protection Project meets the requirements of 44 CFR 65.10. We hereby submit to FEMA, within 90 days (before January 16, 2008) our agreement to provide FEMA with all the necessary information to show that this levee system complies with 44 CFR 65.10. We understand that this documentation will be required before January 16, 2010. This information will allow FEMA to move forward with the flood mapping for Stark County. We fully understand that if complete documentation of compliance with 44 CFR 65.10 is not provided within the designated timeframe of 24 months, FEMA will initiate a revision to the Flood Insurance Rate Map to redesignate the area as floodprone.

Levee Owner Representative _____ (signature)

_____ (print)

Date: _____

Other (if applicable) _____ (signature)

_____ (print)

Date: _____

Requirements of 44 CFR Section 65.10: Mapping of Areas Protected by Levee Systems

As part of a mapping project, it is the levee owner's or community's responsibility to provide data and documentation to show that a levee meets the requirements of Section 65.10 of the National Flood Insurance Program (NFIP) regulations. Links to Section 65.10 and many other documents are available on FEMA's Web site at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

The FEMA requirements in Section 65.10 are separated into five categories:

1. General criteria;
2. Design criteria;
3. Operations plans and criteria;
4. Maintenance plans and criteria; and
5. Certification requirements.

The requirements for each of these areas are summarized below.

(A) GENERAL CRITERIA

For purposes of the NFIP, FEMA will only recognize in its flood hazard and risk mapping effort those levee systems that meet, and continue to meet, minimum design, operation, and maintenance standards that are consistent with the level of protection sought through the comprehensive floodplain management criteria established by Section 60.3 of the NFIP regulations. Section 65.10 of the NFIP regulations describes the types of information FEMA needs to recognize, on NFIP maps, that a levee system provides protection from the flood that has a 1-percent chance of being equaled or exceeded in any give year (base flood). This information must be supplied to FEMA by the community or other party seeking recognition of a levee system at the time a study or restudy is conducted, when a map revision under the provisions of Part 65 of the NFIP regulations is sought based on a levee system, and upon request by the Administrator during the review of previously recognized structures. The FEMA review is for the sole purpose of establishing appropriate risk zone determinations for NFIP maps and does not constitute a determination by FEMA as to how a structure or system will perform in a flood event.

(B) DESIGN CRITERIA

For the purposes of the NFIP, FEMA has established levee design criteria for freeboard, closures, embankment protection, embankment and foundation stability, settlement, interior drainage, and other design criteria. These criteria are summarized in subsections below.

(B)(1) FREEBOARD

For riverine levees:

- A minimum freeboard of 3 feet above the water-surface level of the base flood must be provided.
- An additional 1 foot above the minimum is required within 100 feet on either side of structures (e.g., bridges) riverward of the levee or wherever the flow is constricted.



- Ice loading;
- Impact of debris;
- Slope protection techniques;
- Duration of flooding at various stages and velocities;
- Embankment and foundation materials;
- Levee alignment, bends, and transitions; and
- Levee side slopes.

(B)(4) EMBANKMENT AND FOUNDATION STABILITY

Engineering analyses that evaluate levee embankment stability must be submitted.

The analyses provided shall evaluate expected seepage during loading conditions associated with the base flood and shall demonstrate that seepage into or through the levee foundation and embankment will not jeopardize embankment or foundation stability.

An alternative analysis demonstrating that the levee is designed and constructed for stability against loading conditions for Case IV as defined in U.S. Army Corps of Engineers (USACE) Engineering Manual 1110-2-1913, Chapter 6, Section II, may be used.

The factors that shall be addressed in the analyses include:

- Depth of flooding;
- Duration of flooding;
- Embankment geometry and length of seepage path at critical locations;
- Embankment and foundation materials;
- Embankment compaction;
- Penetrations;
- Other design factors affecting seepage (e.g., drainage layers); and
- Other design factors affecting embankment and foundation stability (e.g., berms).

(B)(5) SETTLEMENT

Engineering analyses must be submitted that assess the potential and magnitude of future losses of freeboard as a result of levee settlement and demonstrate that freeboard will be maintained within the minimum freeboard standards set forth in B(1).

This analysis must address:

- Embankment loads,
- Compressibility of embankment soils,
- Compressibility of foundation soils,

(C)(2) INTERIOR DRAINAGE SYSTEMS

Interior drainage systems associated with levee systems usually include storage areas, gravity outlets, pumping stations, or a combination thereof. FEMA will recognize these drainage systems on NFIP maps for flood protection purposes only if the following minimum criteria are included in the operation plan:

- Documentation of the flood warning system, under the jurisdiction of Federal, State, or community officials, that will be used to trigger emergency operation activities and demonstration that sufficient flood warning time exists to permit activation of mechanized portions of the drainage system;
- A formal plan of operation, including specific actions and assignments of responsibility by individual name or title;
- Provision for manual backup for the activation of automatic systems; and
- Provisions for periodic inspection of interior drainage systems and periodic operation of any mechanized portions for testing and training purposes; no more than 1 year shall elapse between either the inspections or the operations.

(C)(3) OTHER OPERATION PLANS AND CRITERIA

FEMA may require other operating plans and criteria to ensure that adequate protection is provided in specific situations. In such cases, sound emergency management practice will be the standard upon which FEMA determinations will be based.

(D) MAINTENANCE PLANS AND CRITERIA

For levee systems to be recognized as providing protection from the base flood, the following maintenance criteria must be met:

- Levee systems must be maintained in accordance with an officially adopted maintenance plan, and a copy of this plan must be provided to FEMA by the owner of the levee system when recognition is being sought or when the plan for a previously recognized system is revised in any manner.
- All maintenance activities must be under the jurisdiction of a(n):
 - Federal or State agency;
 - Agency created by Federal or State law; or
 - Agency of a community participating in the NFIP that must assume ultimate responsibility for maintenance.
- The maintenance plan must document the formal procedure that ensures that the stability, height, and overall integrity of the levee and its associated structures and systems are maintained.
- At a minimum, the maintenance plan shall specify:
 - Maintenance activities to be performed;
 - Frequency of their performance; and
 - Person by name or title responsible for their performance.