BUILDING CODE BULLETIN

STANDATA

July 2013

DISASTER RECOVERY PROGRAM FLOOD MITIGATION MEASURES

PURPOSE

To outline necessary minimum flood mitigation measures when building owners apply for Disaster Recovery Program (DRP) funding to perform repairs or rebuild on their property.

DISCUSSION

These measures are designed to provide a balance of effective, affordable flood mitigation with minimum impact to the building structure and systems. The measures include locating electrical equipment above the flood level and the selection of building materials and finishes which are less likely to be damaged by flood water and are easier to restore. Proper selection of building materials will reduce the amount of time it takes to return the facility to operation when flood waters recede.

In order to easily and clearly identify these specific flood mitigation measures from other construction requiring permits, all flood mitigation measures are to be included under one flood mitigation permit form (see attached form) issued by the DRP and certified by a safety codes officer employed by the municipality or an accredited agency. The municipality or accredited agency will include all measures under the flood mitigation permit form and perform necessary inspections by the appropriate safety codes officers. The flood mitigation permit form certifies compliance with flood mitigation measures when signed and dated by a safety codes officer.

GENERAL REQUIREMENTS

These are mitigation measures for flood protection to qualify for DRP funding. In order to minimize damage in the event of a future flood, homeowners and small businesses located in the flood fringe must take the minimum flood mitigation measures identified below. The following measures are referred to as “wet flood-protection” which are intended only to minimize damage, and to speed restoration in the event of a flood. This is accomplished in four primary ways:

1. Leave basements unfinished or refinish with materials and finishes that resist water damage and are cleanable.
2. Move the main electrical panel and isolate circuits feeding electrical outlets and equipment in the basement so that power can be restored quickly in the event of a flood.
3. Seal piping, wiring, conduit penetrations at basement walls to minimize water seepage into the building.

4. Plumbing fixtures/equipment located in basements shall be protected from backflow from the public sewers. All backflow prevention devices shall be installed in accordance with manufacturer's recommendations and the Plumbing Regulations.

Detailed Requirements

If the basement was finished or semi finished:

- Refinish with materials and finishes that resist water damage and are cleanable as listed below;
  - Seal piping, wiring, conduit and penetrations of the basement wall to minimize seepage.
  - Relocate main electrical panel so it is not located in the basement; the main floor of the dwelling would be acceptable. Circuits feeding electrical outlets and equipment in the basement are to be separate and isolated from the remainder of the dwelling so that power can be restored quickly in the event of a flood.
  - Plumbing fixtures/equipment located in basements shall be protected from backflow from the public sewers. All backflow prevention devices shall be installed in accordance with manufacturer's recommendations and the Plumbing Regulations.

If the basement was NOT finished:

- Seal piping, wiring, conduit and penetrations of the basement wall to minimize seepage.
- Relocate main electrical panel so it is not located in the basement; the main floor of the dwelling would be acceptable. Circuits feeding electrical outlets and equipment in the basement are to be separate and isolated from the remainder of the dwelling so that power can be restored quickly in the event of a flood.
- Plumbing fixtures/equipment located in basements shall be protected from backflow from the public sewers. All backflow prevention devices shall be installed in accordance with manufacturer's recommendations and the Plumbing Regulations.

Acceptable materials for flood damage reduction include:

Construction Materials for Walls:

- brick, metal, concrete, concrete block, porcelain, slate, glass block, stone, and ceramic and clay tile,
- cement board, reinforced concrete (instead of drywall),
- polyester epoxy paint,
- pressure treated lumber or steel studs (for framing),
- pressure treated and marine grade plywood, and
- foam and closed-cell insulation (instead of batt insulation).

Materials for Flooring:

- concrete, concrete tile and precast concrete,
- latex or bituminous flooring, ceramic, clay terrazzo, vinyl and rubber sheets and tiles, and
- pressure treated wood.

Other:

- metal doors.

Questions regarding this bulletin may be directed to the Safety Services Branch.
Toll free telephone number: 1-866-421-6929.

[Original Signed]
Harry Li
Acting Chief Building Administrator

[Original Signed]
Sidney Manning
Chief Plumbing and Gas Administrator

[Original Signed]
Dan Niven
Acting Chief Electrical Administrator

Flood Mitigation Permit Form

Disaster Recovery Program

1-866-825-4455

PLEASE PRINT

Project Location	
Project Address	Municipality

Applicant/Owner Information		
Owner Name	Contact Person	Phone
Address (if different than Project Address)		Fax
DRP Reference Number		

Permit Information			
Building	Contractor Name	Building Permit Number	
		Issuer signature (or attach permit copy)	
	Basement Penetrations Sealed	☐ Yes ☐ No ☐ NA (if NA explain)	
	Basement materials Acceptable	☐ Yes ☐ No ☐ NA (if NA explain)	
Building Certified Compliant		SCO Signature	Date
Electrical	Contractor Name	Electrical Permit Number	
		Issuer signature (or attach permit copy)	
	Main Panel above grade	☐ Yes ☐ No ☐ NA (if NA explain)	
	Basement circuits isolated	☐ Yes ☐ No ☐ NA (if NA explain)	
Electrical Certified Compliant		SCO Signature	Date
Plumbing	Contractor Name	Plumbing Permit Number	
		Issuer signature (or attach permit copy)	
	Back Water protection in place	☐ Yes ☐ No ☐ NA (if NA explain)	
Plumbing Certified Compliant		SCO Signature	Date

Project Information		
Applicant's Declaration, I certify that information provided above and/or submitted with this application is true and correct.		
Please Print Name	Signature	
Address	Phone Number	Date