Homeowners Floodproofing Workshop

- Welcome!
- About Lake County
- Drainage Evaluation
- Structural Floodproofing Measures

KURT WOOLFORD, P.E., CFM
CHIEF ENGINEER
the lake of Illinois. At the extremity of this lake would be the cut or canal of which I have spoken, to have a passage to the St. Louis river, which empties into the Mississippi. The bark, having entered this river, could easily sail to the Gulf of Mexico.”

Marquette returned to Chicago late in 1674, and wintered “two leagues” from the lake, adjacent to the west fork of the south branch of the Chicago river, near Robey street. On March 29, 1675, he was driven from his cabin by flood waters, due to the spring breakup of the Desplaines river and ice gorges. He secured his effects in trees and took refuge on a “hillock.” On March 31, he crossed the divide in his canoes and proceeded to the Illinois country.
Observed Rain Fall Totals
July 2017 Flood Event
Lake County, IL
and areas north

Rainfall Totals (inches):
- 0.1 - 0.5
- 0.5 - 0.75
- 0.75 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- 3 - 4
- 4 - 5
- 5 - 6
- 6 - 8
- 8 - 10

This map is provided for general informational use only. The map is subject to change. The location of all features are approximate. Lake County Stormwater Management Commission (2017) "Observed Rain Fall Totals July 2017 Flood Event Lake County, IL and areas north."
WHY IS STORMWATER MANAGEMENT IMPORTANT?

IMPERVIOUS SURFACES INCREASE THE VOLUME AND RATE OF STORMWATER RUNOFF
WHY IS STORMWATER MANAGEMENT IMPORTANT... 
...IN LAKE COUNTY?

- Divided into 4 Major Watersheds
- ~61,500 Acres of Water & Wetlands
- ~21% of County is Wet
- ~44% of Wetlands, by number, are Isolated
“AN OUNCE OF PREVENTION IS WORTH A POUND OF CURE”

Benjamin Franklin
TYPE OF FLOODING: OVERLAND FLOODING

IMAGE CREDIT: THE INSTITUTE FOR CATASTROPHIC LOSS REDUCTION
TYPE OF FLOODING: GROUNDWATER INFILTRATION

IMAGE CREDIT: THE INSTITUTE FOR CATASTROPHIC LOSS REDUCTION
TYPE OF FLOODING: SEWER BACKUP

IMAGE CREDIT: THE INSTITUTE FOR CATASTROPHIC LOSS REDUCTION
HOME PROTECTED FROM FLOODING

IMAGE CREDIT: THE INSTITUTE FOR CATASTROPHIC LOSS REDUCTION
EXCAVATED TRENCH FOR DRAIN TILE AND WINDOW WELL

STEEL BEAMS TO REINFORCE FOUNDATION WALL FROM BUCKLING/CRACKING
Steel beam and bracket connected to floor joist.

Wall anchor plates to reinforce foundation from buckling/cracking.

Window well drain hole.
WALL PLATES AND TIEBACK RODS ARE ANCHORED INTO SOLID GROUND

INSTALLED WINDOW WELL WITH DRAIN PIPE AND COARSE GRAVEL
BASEMENT FLOOR SLAB CUT OPEN TO INSTALL INTERIOR PERIMETER DRAIN TILE/PIPE

PERFORATED PIPE AND COARSE GRAVEL ALLOWS WATER TO FREELY DRAIN TO SUMP PIT/PUMP
DUAL SUMP PITS, PUMPS, AND BATTERY BACKUP PUMPS

INTERIOR DRAIN TILE

STRUCTURAL REINFORCEMENTS

CRACK SEALING

WINDOW WELL DRAIN PIPE