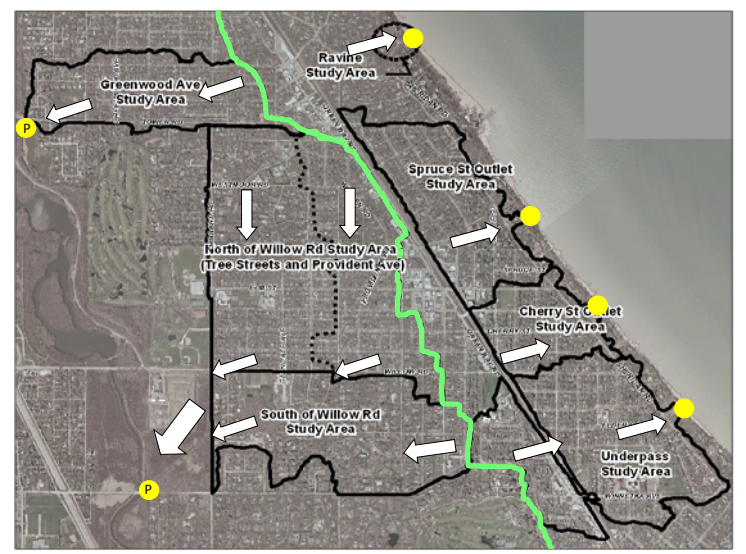
Village of Winnetka

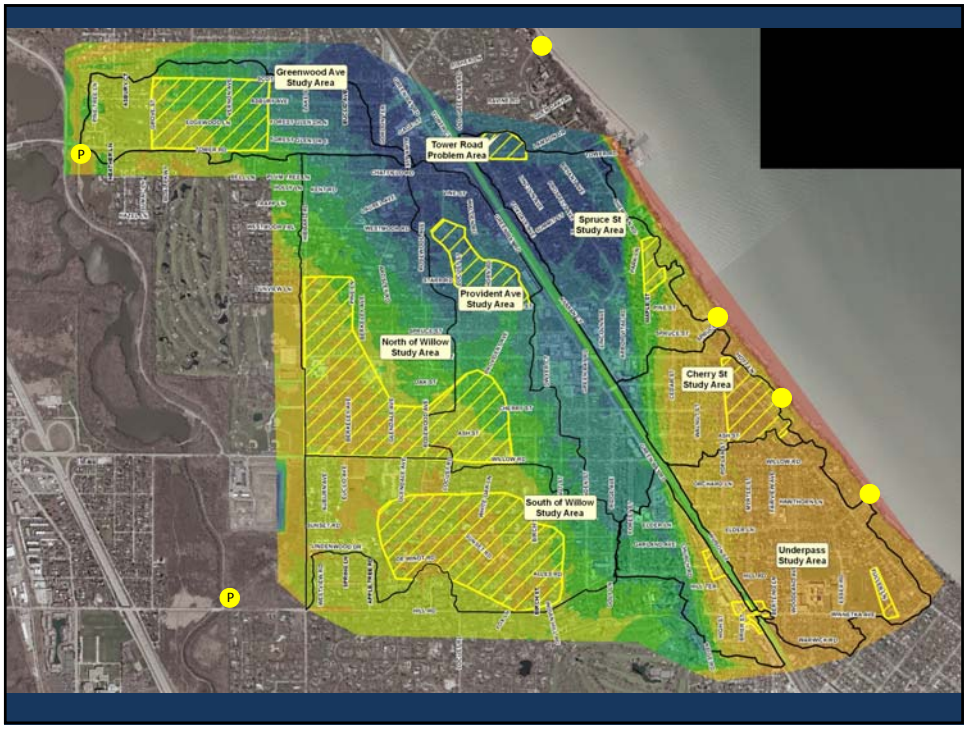
Northwest Winnetka
Flood Reduction Improvements

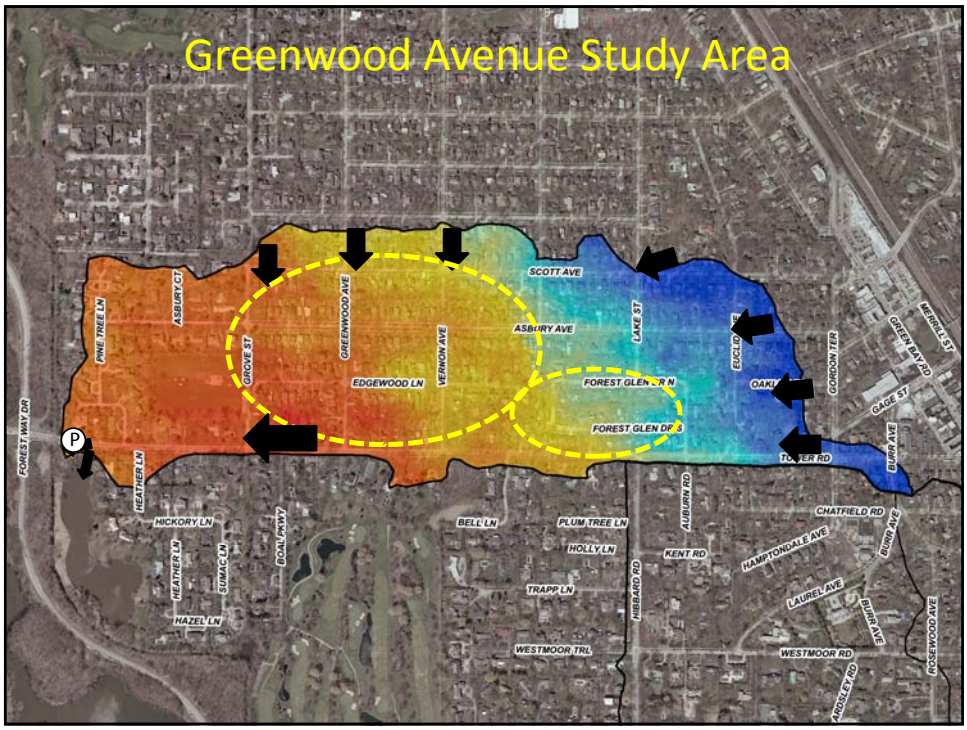
September 11th , 2012

Christopher B. Burke Engineering, Ltd.
(CBBEL)

Northwest Winnetka (Greenwood) Study Area




Greenwood Ave Study Area
Tower Road Problem Area
Spruce St Study Area
Provident Ave Study Area
North of Willow Study Area
Cherry St Study Area
South of Willow Study Area
Underpass Study Area


Greenwood Avenue Study Area
SCOTT AVE
ASBURY AVE
ASBURY CT
PINE TREE LN
GROVE ST
GREENWOOD AVE
VERNON AVE
EDGEWOOD LN
LAKE ST
FOREST GLEN DR N
FOREST GLEN DR S
GORDON TER
GREEN BAY RD
MERRILL ST
GAGE ST
BURR AVE
TOWER RD
FOREST WAY DR
HEATHER LN
HICKORY LN
SUMAC LN
DOLL PKWY
HAZEL LN
BELL LN
PLUM TREE LN
HOLLY LN
TRAPP LN
WESTMOOR TRL
HIBBARD RD
AUBURN RD
KENT RD
CHATFIELD RD
HAMPTONDALE AVE
LAUREL AVE
WESTMOOR RD
ROSEWOOD AVE

Background

- Greenwood Study area was previously analyzed for 25-, 50- and 100-year design storms
  - Two alternatives
    - New storm sewers
    - Underground storage and storm sewers
  - Alternative 1 was recommended

Level of Protection	Engineer's Estimate of Probable Cost (Millions)
	Alternative 1
10-year	$0.07
25-year	$2.2
50-year	$2.3
100-year	$2.9

Purpose

- Forest Glen area in Greenwood Study area was refined following July 2011 storm.
- Results from the existing conditions modeling were verified using the July 2011 storm event.
  - Questionnaire data
- Critical design storm is 100-year, 2-hour
  - 4.47 inches in 2 hours

Forest Glen (Existing Conditions)

- The storm sewers draining the Forest Glen area have less than a 5-year capacity
- Overland flow is directed southwest between Forest Glen North and Forest Glen South toward backyards/houses to the west and eventually to Tower Rd

Forest Glen (Existing Conditions)

Forest Glen (Proposed Conditions)

- Two alternatives
  - Alt 1. New storm sewers along Forest Glen and Tower
  - Alt 2. Storage at Bell Woods and storm sewers
    - Stand alone option (No Greenwood improvements)
- Alternative 1 was recommended
  - No additional improvements required for Greenwood Area
- Cost is in addition to cost for Greenwood improvements

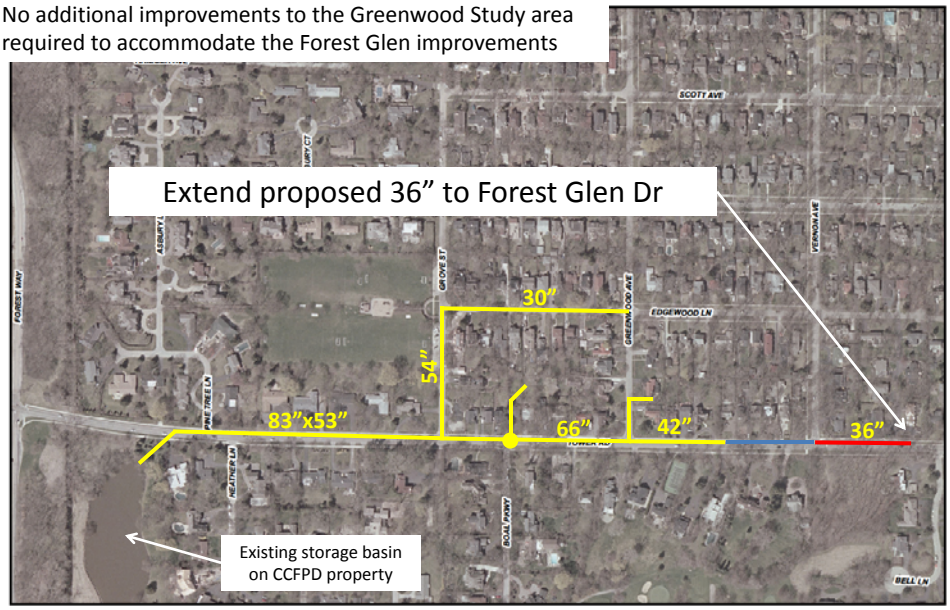
Level of Protection	Engineer's Estimate of Probable Cost (Thousands)
	Alternative 1
25-year	$631
50-year	$654
100-year	$685

Forest Glen Proposed Conditions

Connection to Greenwood Study Area improvements

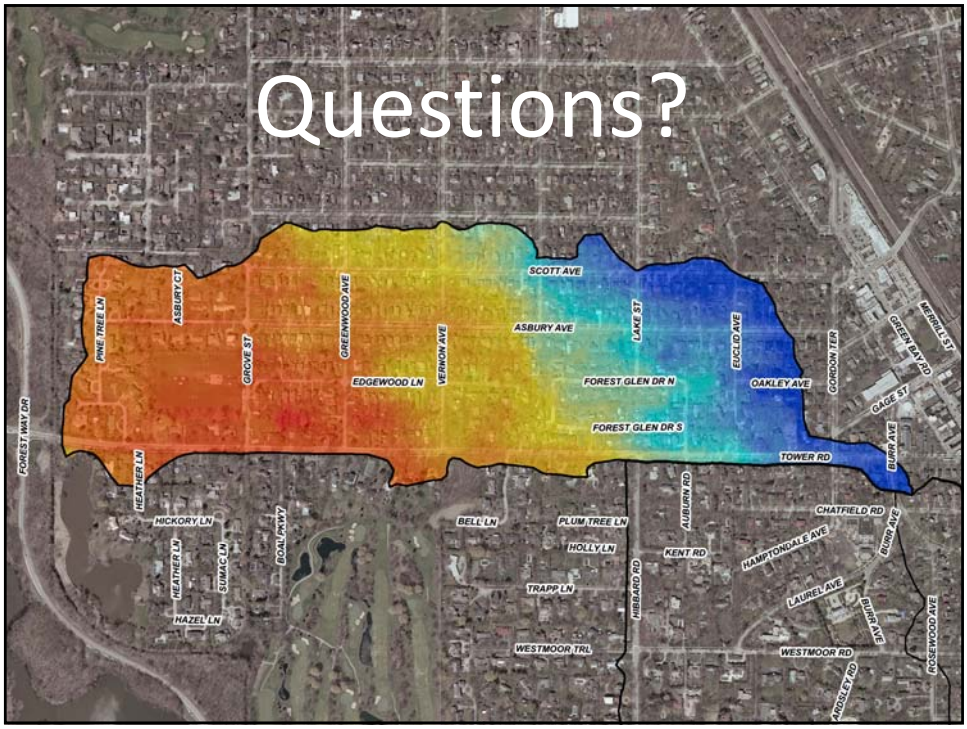
Greenwood Avenue Study Area

No additional improvements to the Greenwood Study area required to accommodate the Forest Glen improvements



Policy Issues

- Improvements for Northwest Winnetka are scheduled for engineering in 2012 and construction in 2013.
  - Include Forest Glen with Greenwood improvements?
  - Proceed with Greenwood without Forest Glen?
  - Complete additional studies and determine when improvements should be constructed?


Questions?
SCOTT AVE
ASBURY AVE
LAKE ST
EUCLID AVE
GREEN BAY RD
MERRILL ST
GORDON TER
OAKLEY AVE
GAGE ST
BURR AVE
TOWER RD
FOREST GLEN DR N
FOREST GLEN DR S
EDGEWOOD LN
VERNON AVE
GREENWOOD AVE
GROVE ST
ASBURY CT
PINE TREE LN
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HEATHER LN
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