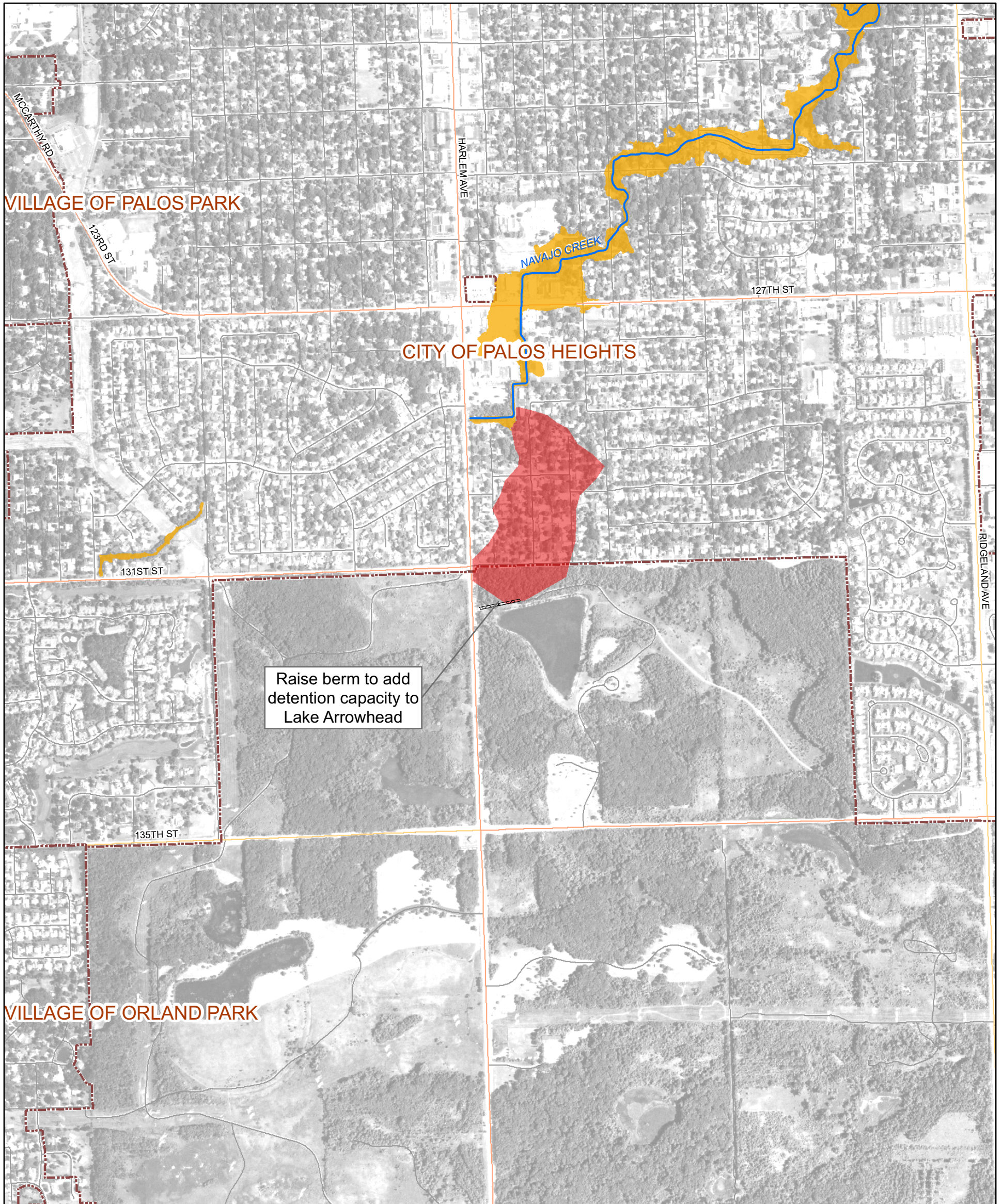


Figure 3.25.1  
 Tributary Overview: Navajo Creek  
 Calumet-Sag Channel Detailed Watershed Plan



Subwatershed: Navajo Creek

Alternative: NVCR-3

Alternative Description:

Raise Lake Arrowhead berm three feet to provide one-foot of additional storage and two feet of freeboard

Conceptual Level Cost: \$ 143,900

Benefits: \$ 98,700

B/C Ratio:0.69

LEGEND

- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project
- Calumet-Sag Channel
- Watershed Boundary
- Roadway**
  - Interstate
  - US Highway
  - Major Road
  - Road
- River/Stream
- Municipal Boundary
- Cook County Boundary

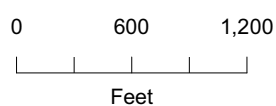
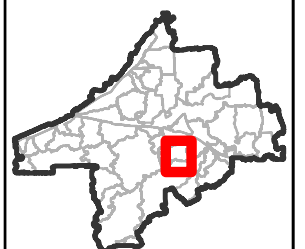
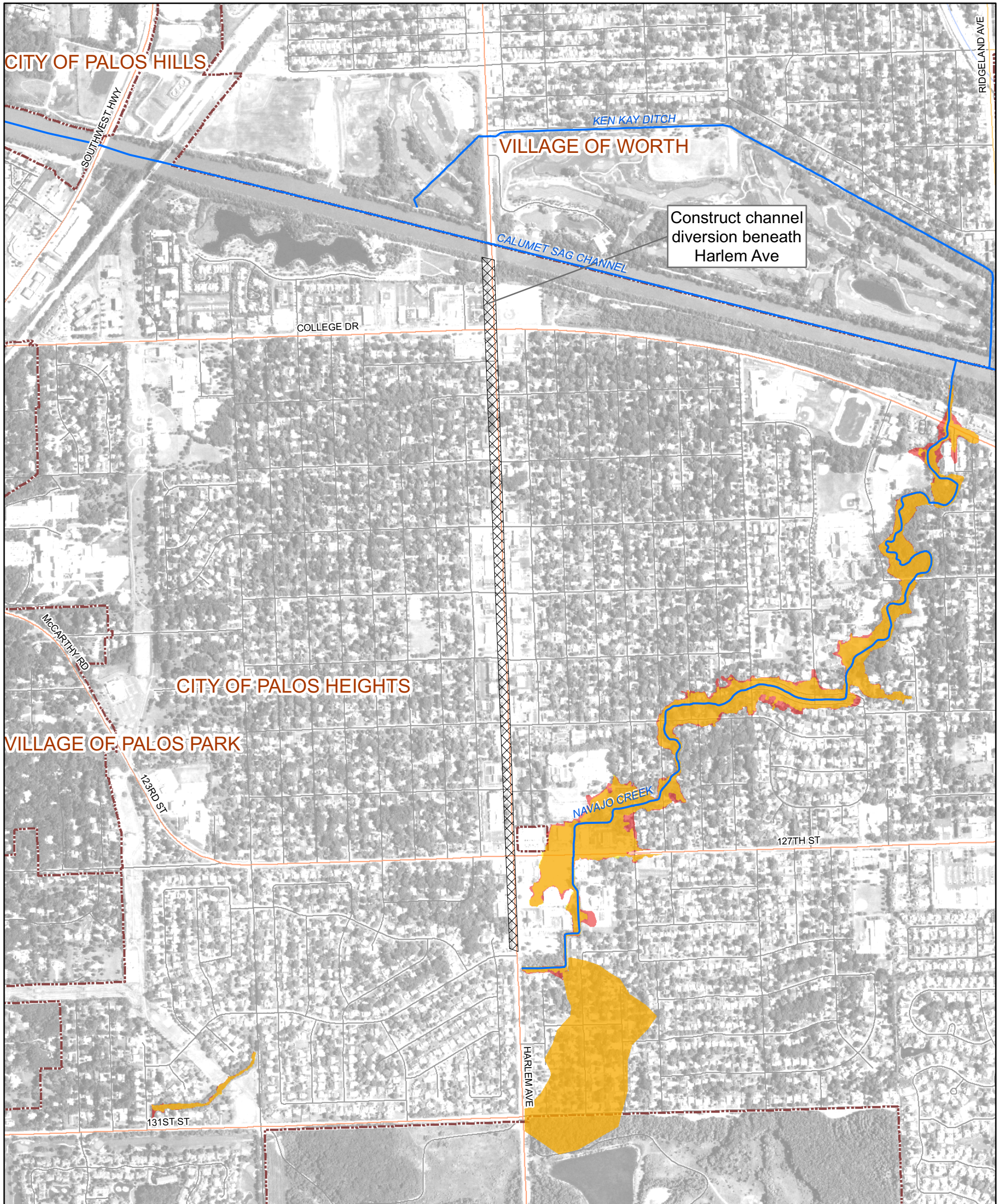


Figure 3.25.2  
 Navajo Creek  
 Alternative NVCR-3  
 Existing and Alternative Inundation Areas  
 Calumet-Sag Channel Detailed Watershed Plan





Subwatershed: Navajo Creek

Alternative: NVCR-5

Alternative Description:

Construct channel diversion beneath Harlem Ave

Conceptual Level Cost: \$ 7,903,100

Benefits: \$ 1,148,300

B/C Ratio:0.2

LEGEND

- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project
- Calumet-Sag Channel
- Watershed Boundary
- Roadway**
- Interstate
- US Highway
- Major Road
- Road
- River/Stream
- Municipal Boundary
- Cook County Boundary

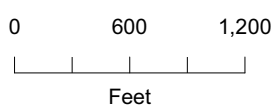


Figure 3.25.3  
Navajo Creek  
Alternative NVCR-5  
Existing and Alternative Inundation Areas  
Calumet-Sag Channel Detailed Watershed Plan



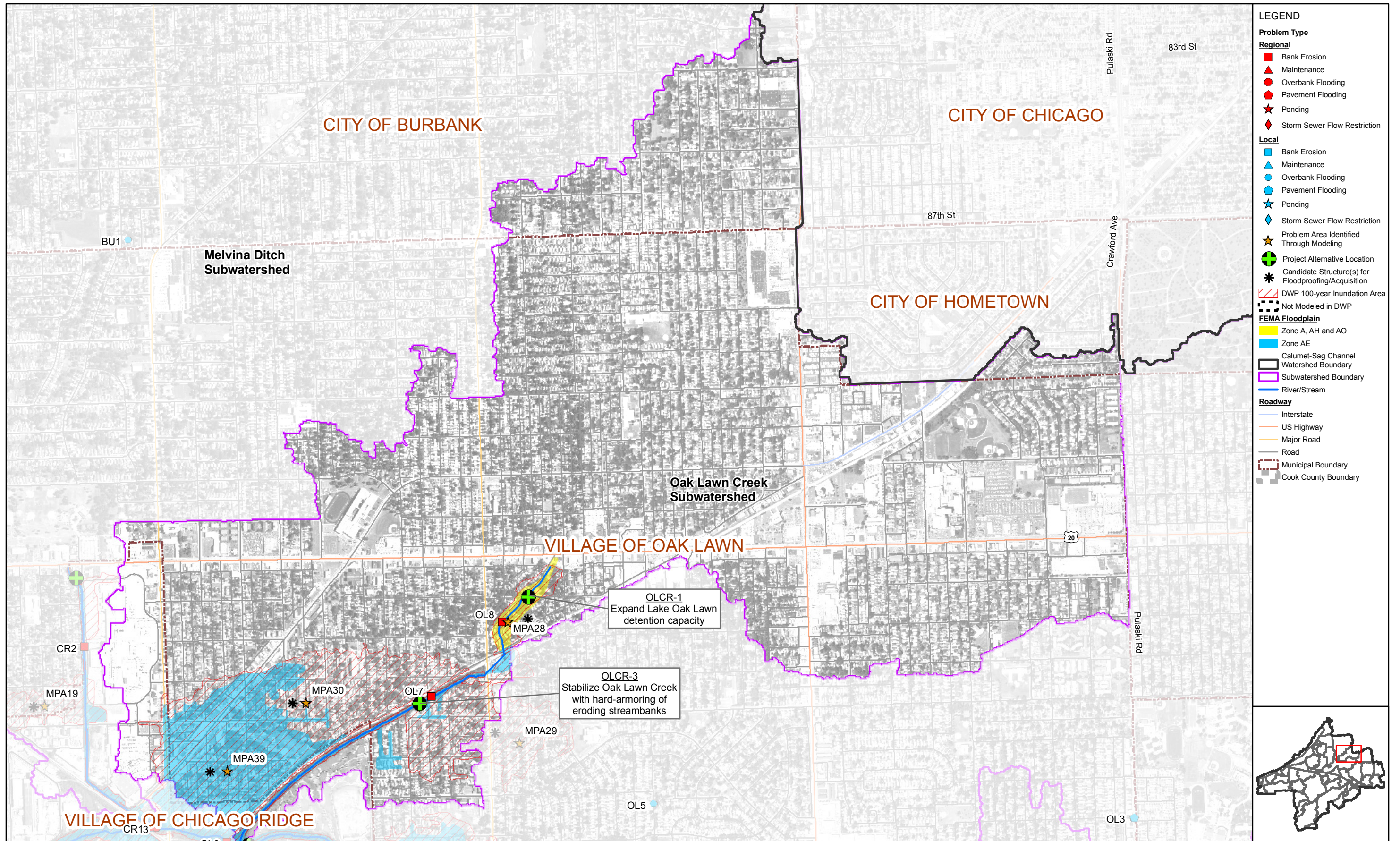
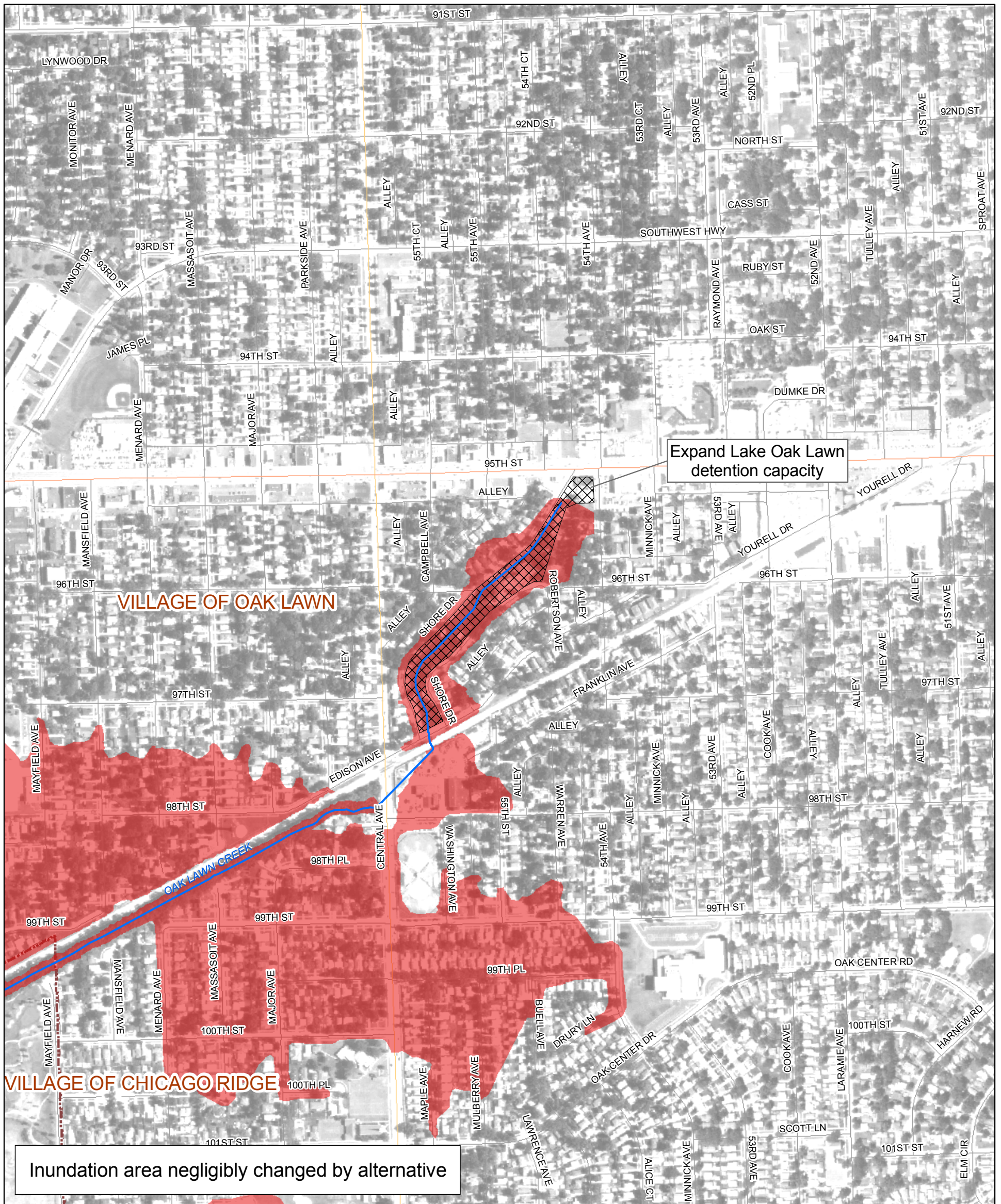


Figure 3.26.1  
 Tributary Overview: Oak Lawn Creek  
 Calumet-Sag Channel Detailed Watershed Plan



Subwatershed: Stony Creek/Oak Lawn Creek

Alternative: OLCR-1

Alternative Description:

Expand Lake Oak Lawn detention capacity

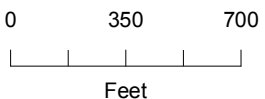
Conceptual Level Cost: \$ 6,306,100

Benefits: \$ 450,000

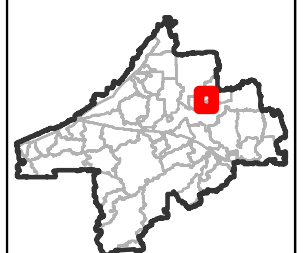
B/C Ratio: 0.07

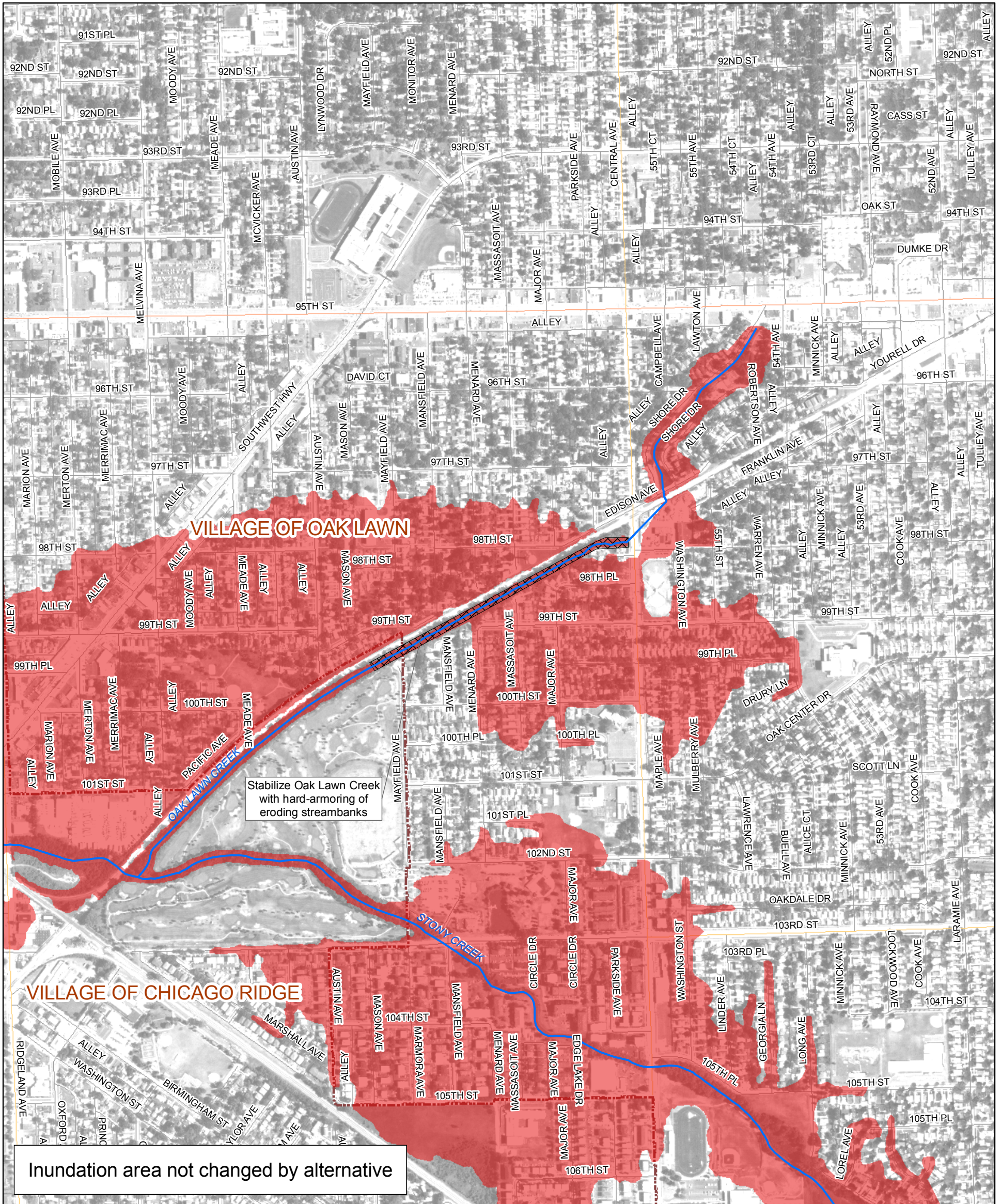
**LEGEND**

- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project
- Calumet-Sag Channel
- Watershed Boundary
- Roadway**
- Interstate
- US Highway
- Major Road
- Road
- Municipal Boundary
- Cook County Boundary



**Figure 3.26.2**  
**Stony Creek/Oak Lawn Creek**  
**Alternative OLCR-1**  
**Existing and Alternative Inundation Areas**  
**Calumet-Sag Channel Detailed Watershed Plan**





Subwatershed: Stony Creek/Oak Lawn Creek

Alternative: OLCR-3

Alternative Description:

Stabilize Oak Lawn Creek with hard-armoring of eroding streambanks

Conceptual Level Cost: \$ 7,299,200

Benefits: \$ 3,081,000

B/C Ratio: 0.42

LEGEND

- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project
- Calumet-Sag Channel
- Watershed Boundary
- Roadway**
  - Interstate
  - US Highway
  - Major Road
  - Road
- River/Stream
- Municipal Boundary
- Cook County Boundary

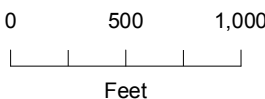
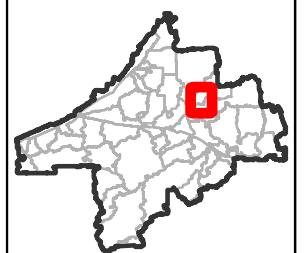
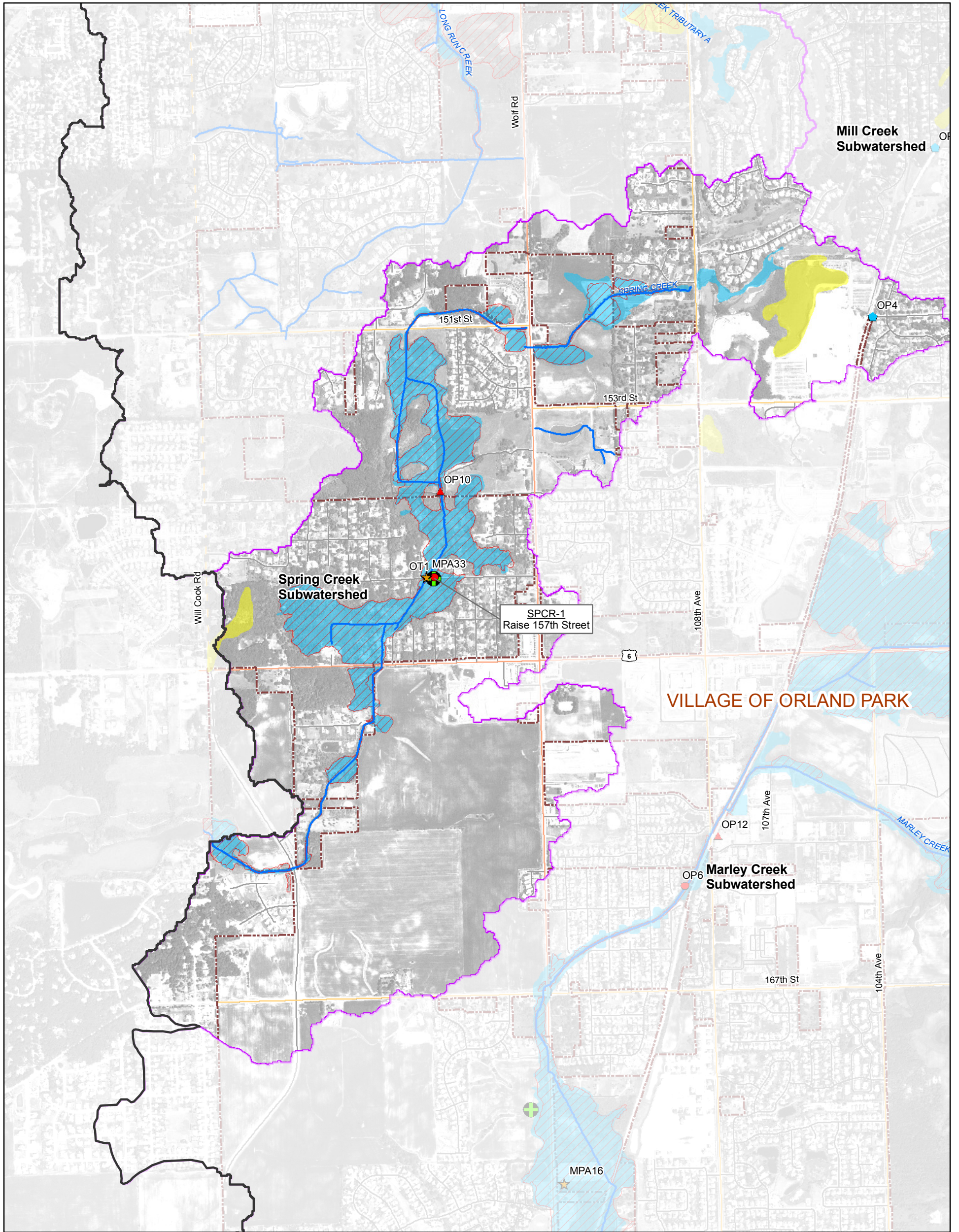


Figure 3.26.3  
 Stony Creek/Oak Lawn Creek  
 Alternative OLCR-3  
 Existing and Alternative Inundation Areas  
 Calumet-Sag Channel Detailed Watershed Plan





<b>LEGEND</b>			
<b>Problem Type</b>			
<b>Regional</b>			
■ Bank Erosion	▲ Maintenance	★ Problem Area Identified Through Modeling	<b>FEMA Floodplain</b>
▲ Maintenance	● Overbank Flooding	⊕ Project Alternative Location	■ Zone A, AH and AO
● Overbank Flooding	◆ Pavement Flooding	✱ Candidate Structure(s) for Floodproofing/Acquisition	■ Zone AE
◆ Pavement Flooding	★ Ponding	▨ DWP 100-year Inundation Area	▭ Calumet-Sag Channel Watershed Boundary
★ Ponding	◆ Storm Sewer Flow Restriction	⊘ Not Modeled in DWP	▭ Subwatershed Boundary
◆ Storm Sewer Flow Restriction			▭ Municipal Boundary
			▭ Cook County Boundary
			— River/Stream
			— Roadway
			— Interstate
			— US Highway
			— Major Road
			— Municipal Boundary
			— Cook County Boundary

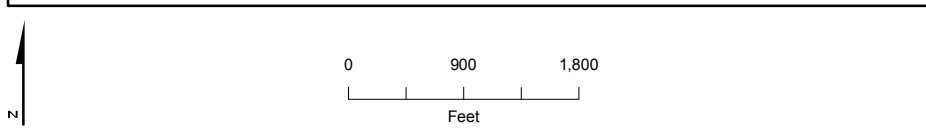
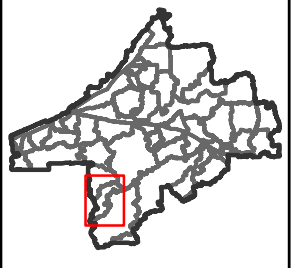
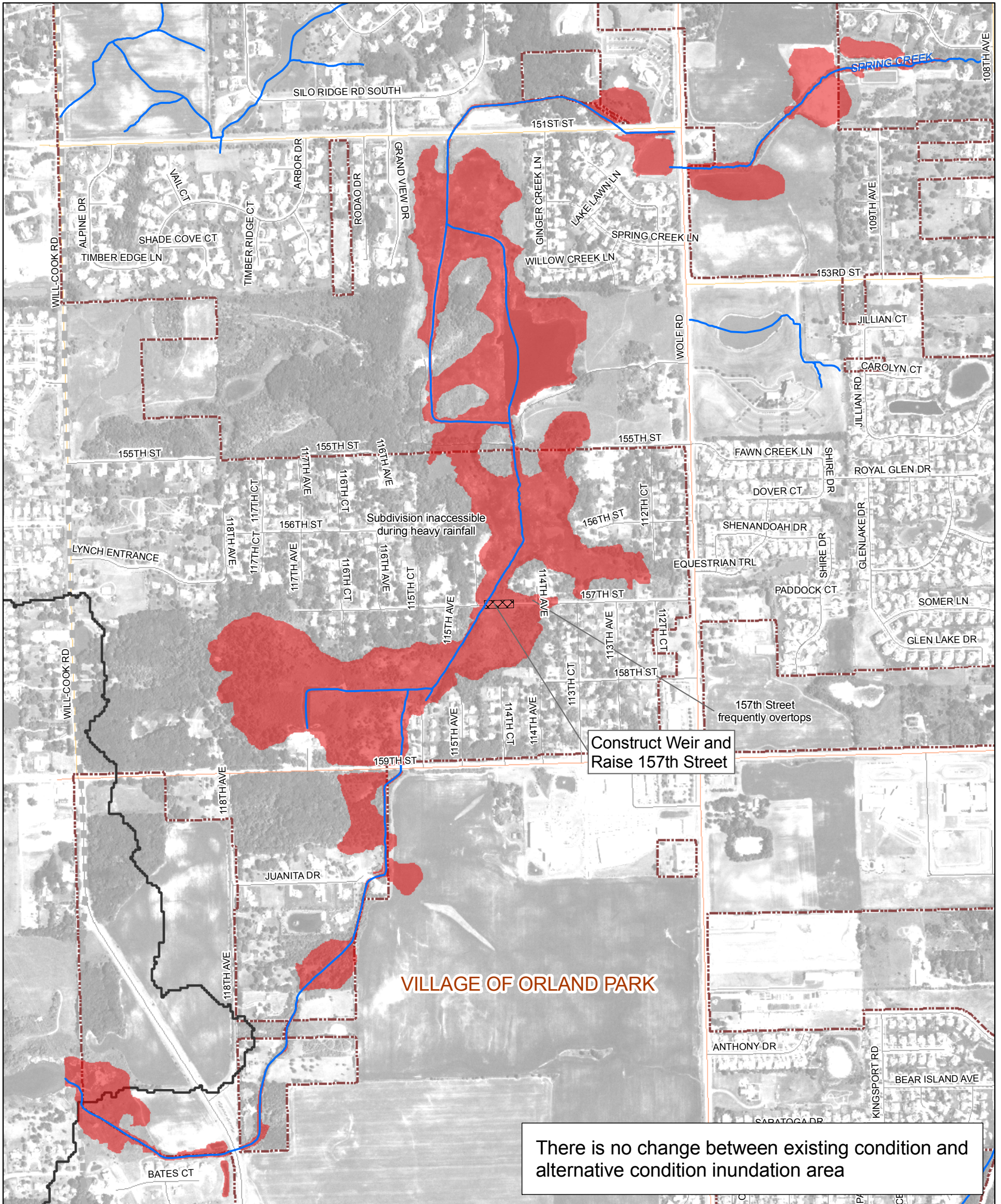


Figure 3.27.1  
Tributary Overview: Spring Creek  
Calumet-Sag Channel Detailed Watershed Plan



Subwatershed: Spring Creek

Alternative: SPCR-1

Alternative Description:

Raise 157th street and construct weir to maintain existing flow conditions

Conceptual Level Cost: \$ 1,053,800

Benefits: \$ 24,100

B/C Ratio: 0.02

LEGEND

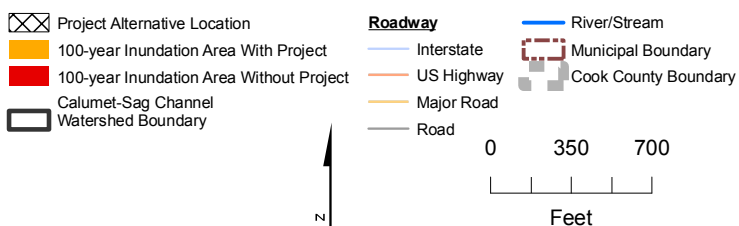
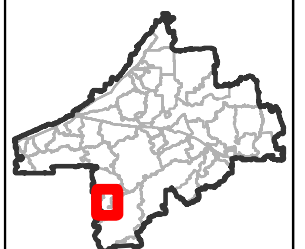
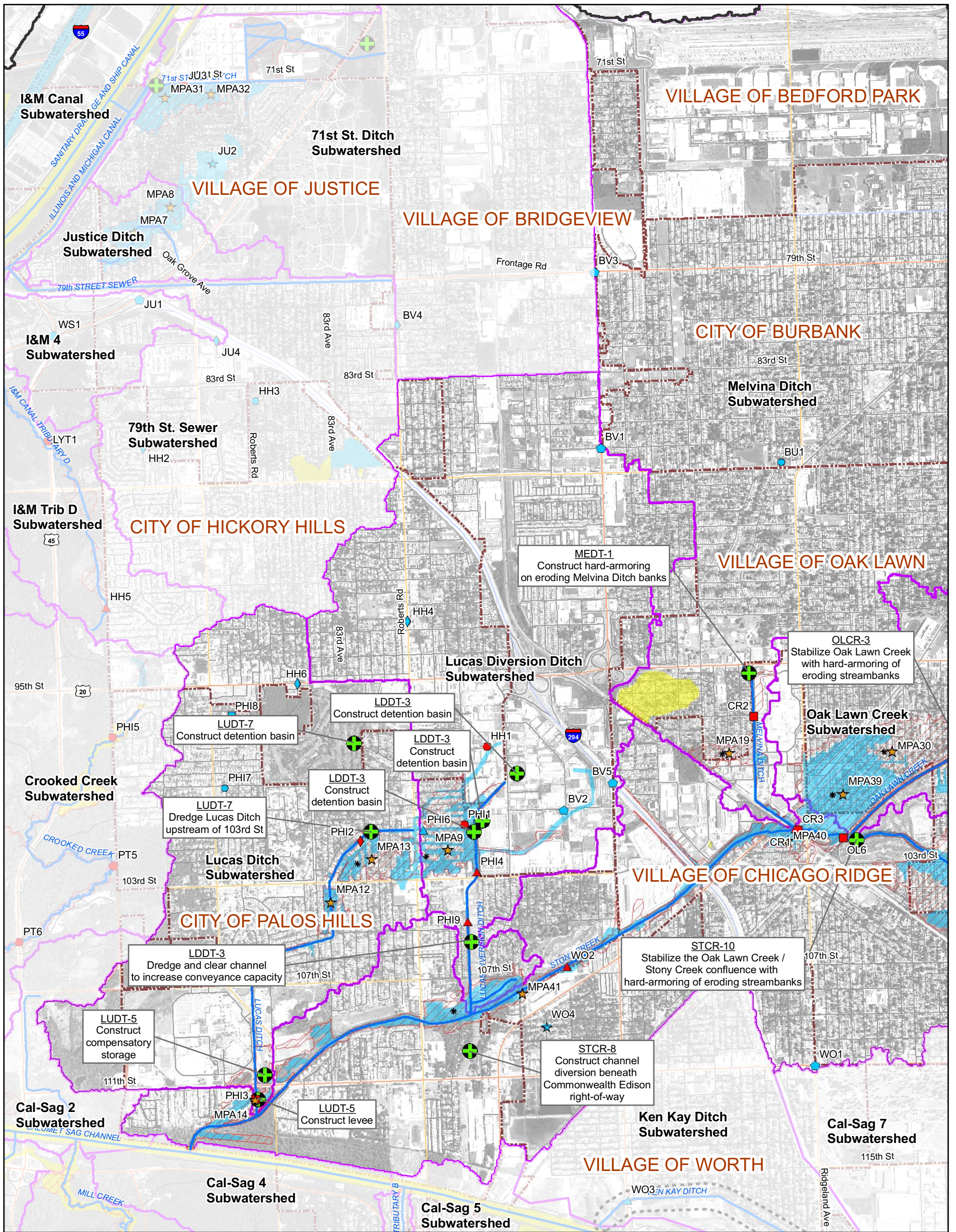


Figure 3.27.2  
 Spring Creek  
 Alternative SPCR-1  
 Existing and Alternative Inundation Areas  
 Calumet-Sag Channel Detailed Watershed Plan







**LEGEND**

<b>Problem Type</b>		★ Problem Area Identified Through Modeling	FEMA Floodplain	River/Stream
<b>Regional</b>				
■ Bank Erosion	■ Bank Erosion	⊕ Project Alternative Location	■ Zone A, AH and AO	— Roadway
▲ Maintenance	▲ Maintenance	* Candidate Structure(s) for Floodproofing/Acquisition	■ Zone AE	— Interstate
● Overbank Flooding	● Overbank Flooding	▨ DWP 100-year Inundation Area	▭ Calumet-Sag Channel Watershed Boundary	— US Highway
◆ Pavement Flooding	◆ Pavement Flooding	⊘ Not Modeled in DWP	▭ Subwatershed Boundary	— Major Road
★ Ponding	★ Ponding			— Municipal Boundary
◆ Storm Sewer Flow Restriction	◆ Storm Sewer Flow Restriction			▭ Cook County Boundary

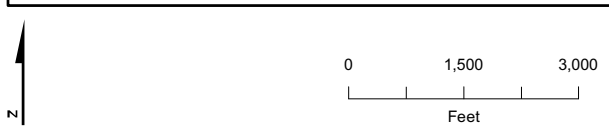
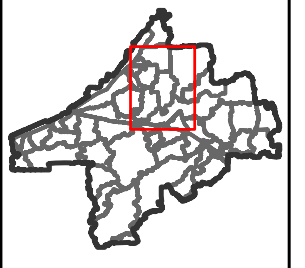
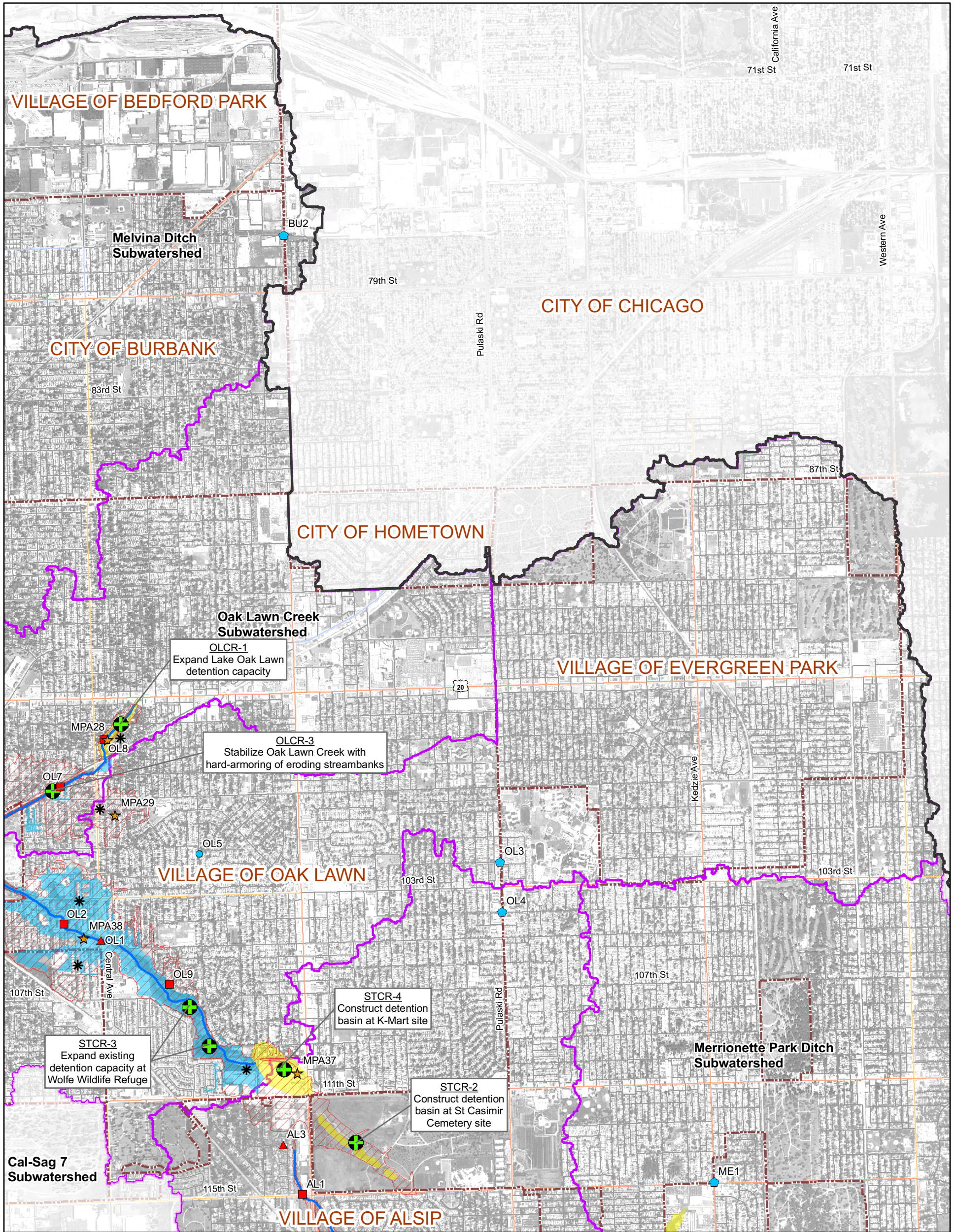


Figure 3.28.1a  
Tributary Overview: West Stony Creek (1 of 3)  
Calumet-Sag Channel Detailed Watershed Plan



**LEGEND**

<b>Problem Type</b>		★ Problem Area Identified Through Modeling	<b>FEMA Floodplain</b>	— River/Stream
<b>Regional</b>				
■ Bank Erosion	■ Bank Erosion	● Project Alternative Location	■ Zone AE	— Interstate
▲ Maintenance	▲ Maintenance	* Candidate Structure(s) for Floodproofing/Acquisition	▭ Calumet-Sag Channel Watershed Boundary	— US Highway
● Overbank Flooding	● Overbank Flooding	▨ DWP 100-year Inundation Area	▭ Subwatershed Boundary	— Major Road
■ Pavement Flooding	■ Pavement Flooding	▭ Not Modeled in DWP	— Municipal Boundary	▭ Cook County Boundary
★ Ponding	★ Ponding			
◆ Storm Sewer Flow Restriction	◆ Storm Sewer Flow Restriction			

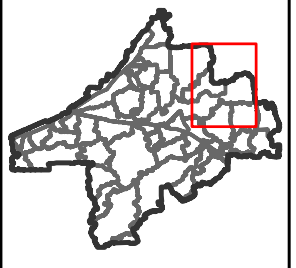


Figure 3.28.1b  
Tributary Overview: West Stony Creek (2 of 3)  
Calumet-Sag Channel Detailed Watershed Plan

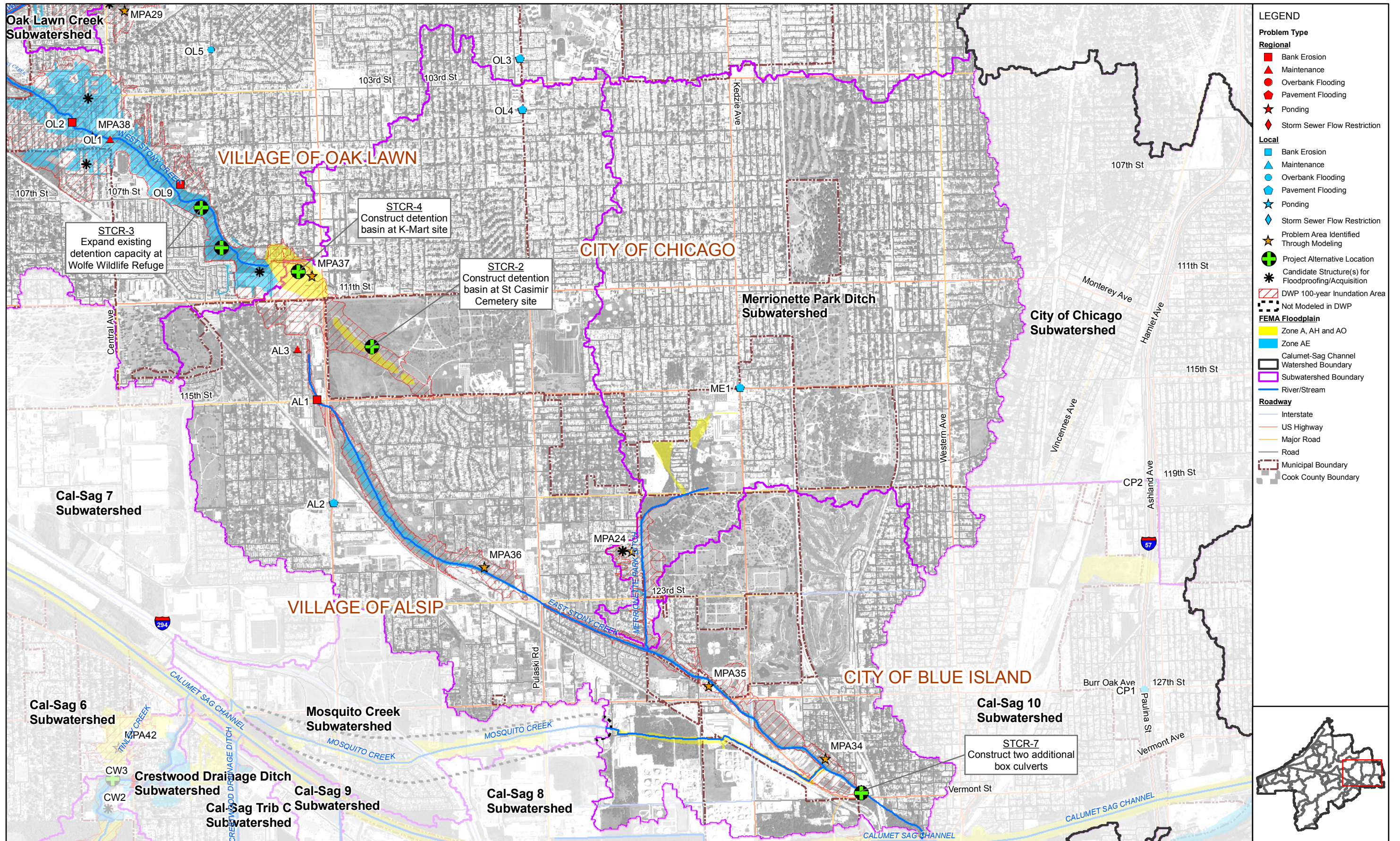
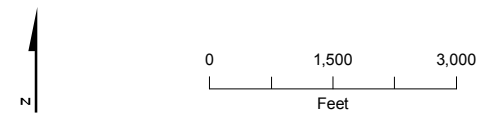
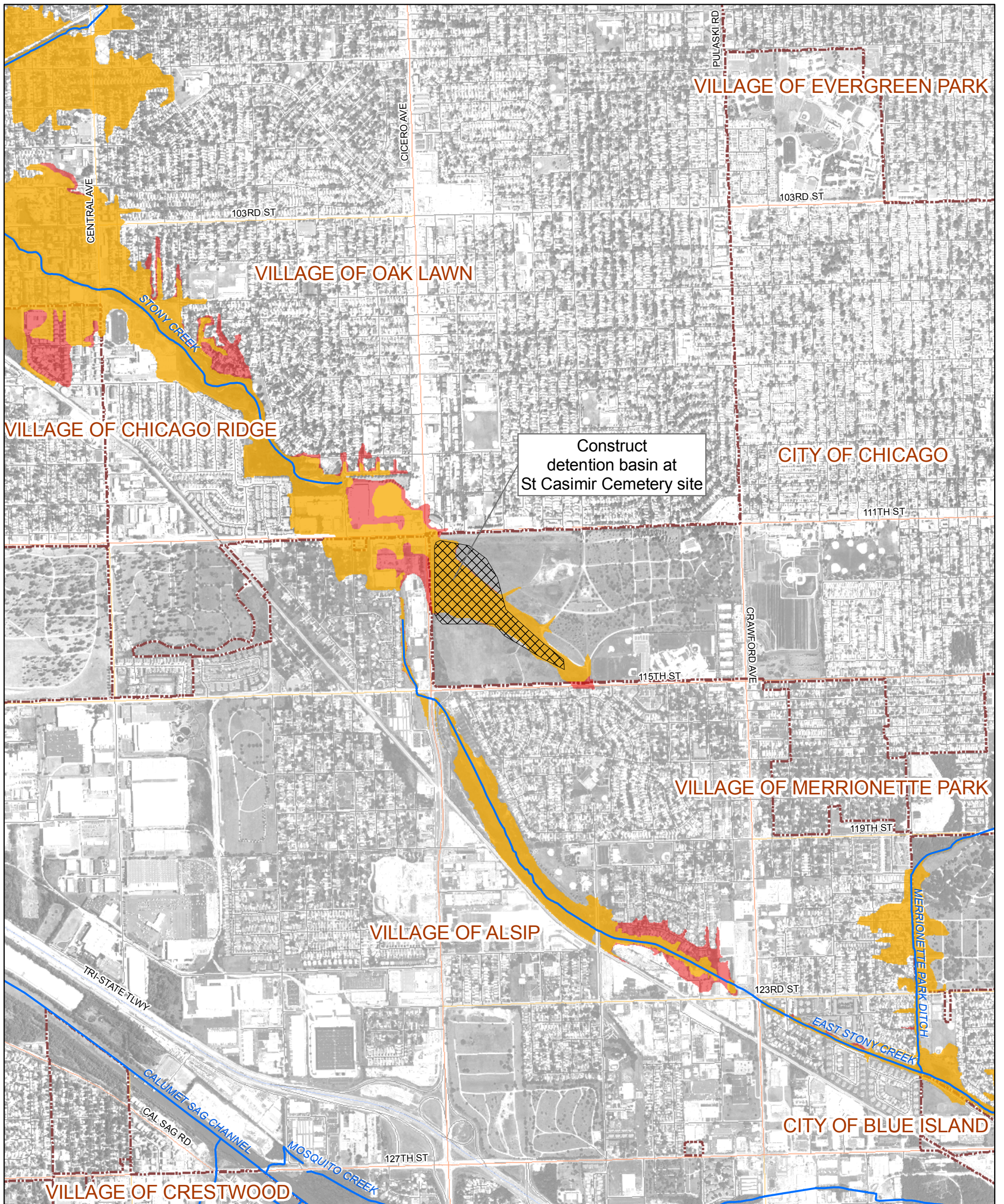


Figure 3.28.1c  
 Tributary Overview: Stony Creek East (3 of 3)  
 Calumet-Sag Channel Detailed Watershed Plan





Subwatershed: Stony Creek

Alternative: STCR-2

Alternative Description:

Construct detention basin on undeveloped St Casimir Cemetery property

Conceptual Level Cost: \$ 48,496,800

Benefits: \$ 12,203,700

B/C Ratio: 0.25

LEGEND

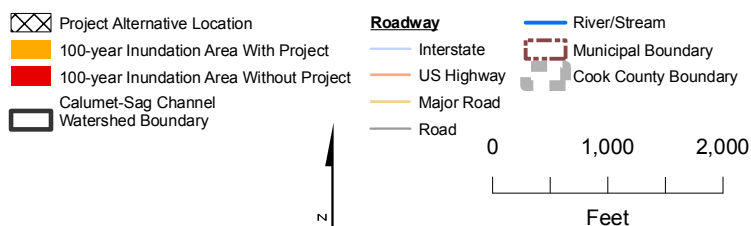
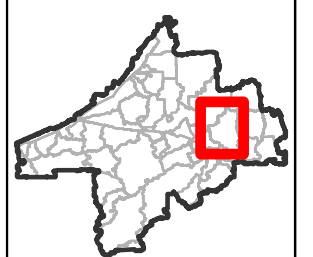
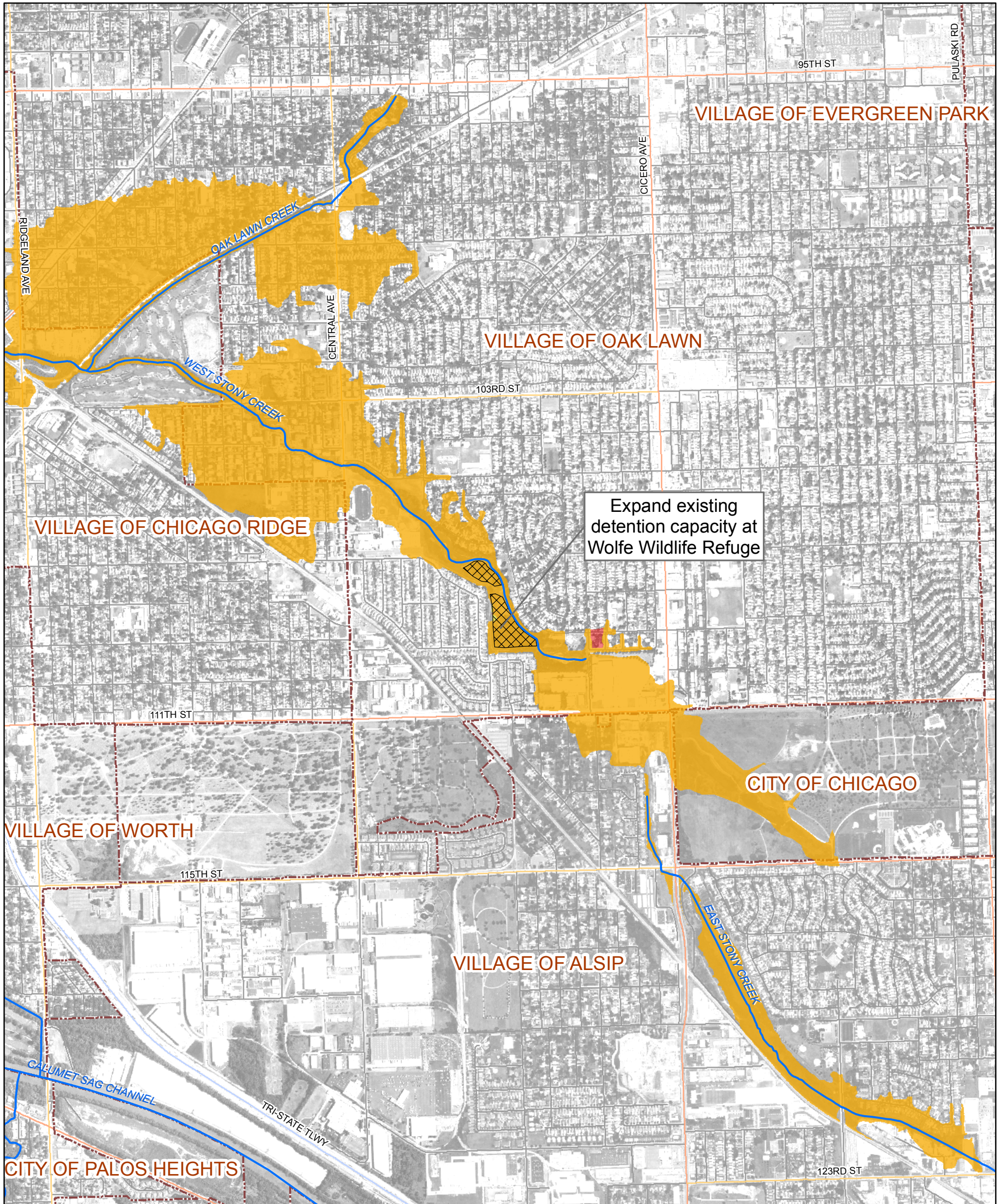


Figure 3.28.2  
 Stony Creek  
 Alternative STCR-2  
 Existing and Alternative Inundation Areas  
 Calumet-Sag Channel Detailed Watershed Plan





Subwatershed: Stony Creek

Alternative: STCR-3

Alternative Description:

Expand Wolfe Wildlife Refuge detention capacity

Conceptual Level Cost: \$ 7,691,000

Benefits: \$ 735,100

B/C Ratio: 0.1

LEGEND

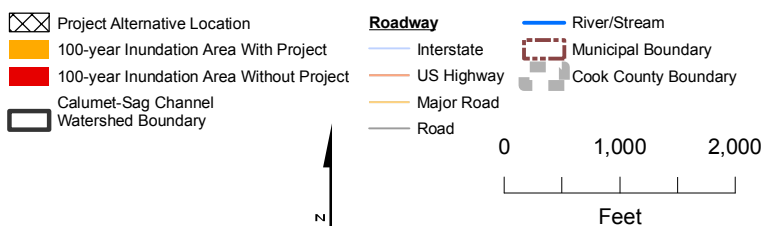
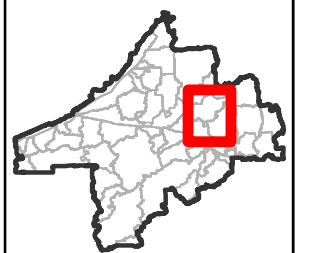
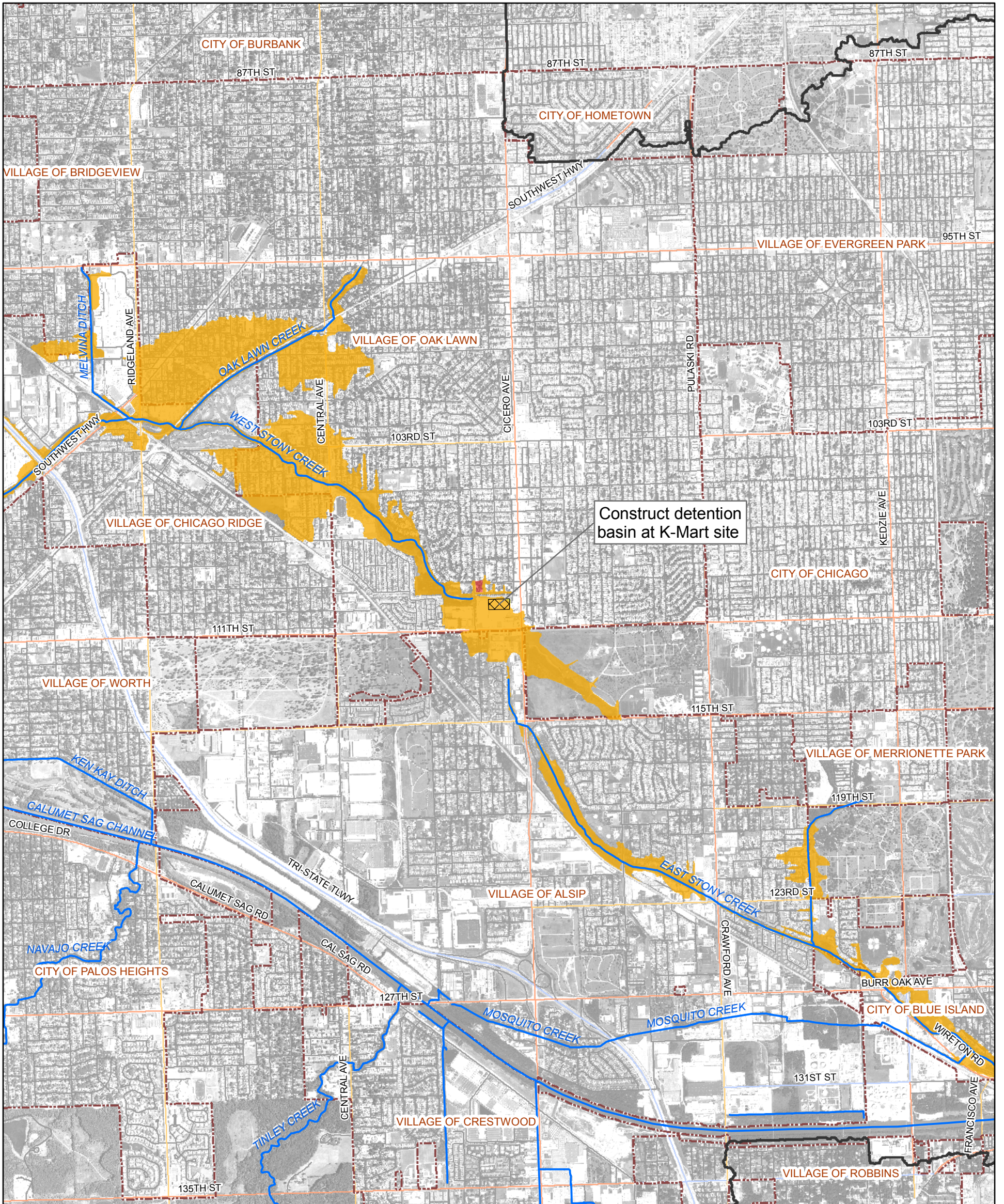


Figure 3.28.3  
Stony Creek  
Alternative STCR-3  
Existing and Alternative Inundation Areas  
Calumet-Sag Channel Detailed Watershed Plan





Subwatershed: Stony Creek

Alternative: STCR-4

Alternative Description:

Construct detention basin on a portion of K-Mart parking lot site

Conceptual Level Cost: \$ 4,327,300

Benefits: \$ 206,600

B/C Ratio: 0.05

LEGEND

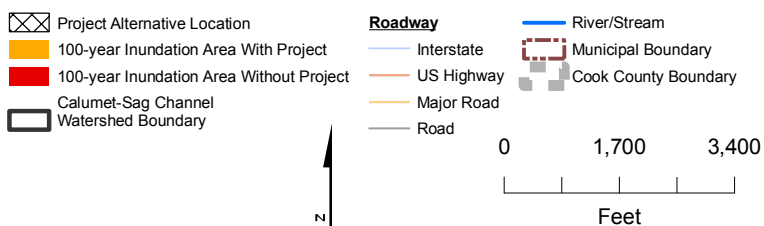


Figure 3.28.4  
Stony Creek  
Alternative STCR-4  
Existing and Alternative Inundation Areas  
Calumet-Sag Channel Detailed Watershed Plan

